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High-Quality Leader-Member Exchange and Attitudes Toward Change: The Mediating Role of Mindset

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Abstract

The purpose of this study was to examine the relationship between high-quality leader-member exchange (high-quality LMX) and attitudes toward change. The study further explores the potential mediating influence mindset may have on the relationship between LMX and attitudes toward change. A sample of 852 employees in a Norwegian company associated with a major bank and finance alliance was obtained. The results showed that both high-quality LMX and mindset was directly related to employee's attitudes toward change. However, no support for the mediating influence mindset had in the high-quality LMX-attitude toward change relationship was found. Directions for future research and implications for practice are discussed.

Keywords: Organizational change, Social Leader-Member Exchange and Mindset

Introduction

The pace of global, economic and technological development makes change inevitable for organizations (Cummings & Worley, 2015). Whatever the reason, embracing constant and continuous change is now a necessity for business success. To achieve this, organizations must be in a continued state of change readiness (Rowden, 2001). Literature indicates that a high proportion of change initiatives are unsuccessful (Nohria & Beer, 2000), and that the reason why, is due to employee's resistance to change (Spiker & Lesser, 1995; Maurer, 1997). If an organization is to successfully implement change, it must generate employee support and devotion for the change initiative. In addition, developing a change strategy that includes the employee's psychological processes, such as *attitudes toward organizational change,* may be beneficial (Elias, 2009). This is supported by Woodman and Dewett (2004) who emphasize the importance of employee's change-supportive behaviour through leader-member exchange (LMX), as a determinant factor for the success of the change implementation.

The present study aims to examine the relationship between high-quality LMX and attitudes toward change. This may be valuable due to leader's crucial role during organizational change; by managing relationships, coordinating mechanisms for change, aligning operations with strategy, building structures and developing rewards (Weisbard, 1976). The most important implication of studying reactions to organizational change from an *attitude* perspective is that it entails both positive and negative aspects, whereas a lot of existing literature has a tendency to focus on negative reactions to change (resistance) (Lines, 2005). When employees have a strong, positive attitude toward change, they are likely to behave in a way that supports and facilitates the change initiative that is being implemented (Lines, 2005). On the other hand, when employees have a strong, negative attitude toward change, it is more likely that they will resist the change, and even try to sabotage the change initiative (Lines, 2005). It is suggested that the relationship between leaders and employees plays an important role in shaping employee's attitudes toward organizational change, and their support for a change initiative (Parish, Cadwallader & Busch, 2008). When employees feel involved in

decision making and supported by their leaders, they are more likely to possess a positive attitude toward organizational change (Choi, 2011).

According to LMX theory, leaders develop distinctive exchange relationships, which are specific to each employee, to achieve high levels of effort, loyalty and the best results possible (Grønhaug, Hellesøy & Kaufmann, 2003). LMX is defined as the dyadic relationship between a leader and a member (Gerstner & Day, 1997). LMX was originally seen as a one-dimensional construct. However, scholars suggest that LMX could be two relatively independent constructs, namely social LMX (SLMX) and economic LMX (ELMX). These constructs should be viewed as relationships with different qualities, rather than different levels of quality (Shore, Tetrick, Lynch & Barksdale, 2006; Kuvaas, Buch, Dysvik & Haerem, 2012).Theorists distinguishes between high- and low-quality relationship, where high-quality LMX relationship are characterized by employees making contributions that goes beyond their formal job descriptions and low-quality LMX relationship are characterized by mutual expectations of reciprocity and contributions that only refers to what is stated in the employment contract (Liden & Graen, 1980; Yukl, 2013; Buch & Kuvaas, 2016; Sherony & Green, 2002; Yukl & Van Fleet, 1990). High-quality LMX relationships are often identified as SLMX and low-quality LMX relationships as ELMX (Wayne et. al. 2009; Buch, 2012). However, Dulebohn, Bommer, Liden, Brouer and Ferris (2011) found that social relationships contained factors such as trust and support, along with factors which are normally classified as belonging with low-quality relationships.

Instead of measuring LMX as a dimension ranging from low-to high-quality relationships, this study includes high-quality LMX (SLMX) as it contains a long-term orientation where trust and investment make up important aspects of the exchange relationship (Shore et al., 2006). It has been argued that high-quality LMX is positively related to outcomes such as work performance and organizational citizenship behaviour, job satisfaction, affective commitment and lower turnover intentions (Kuvaas et al., 2012; Buch, Kuvaas & Dysvik, 2011). From reviewing literature there seems to be little, perhaps no existing research studying the relationship between high-quality LMX and attitudes toward change,

which is why this study could potentially bring valuable contributions to the existing literature on LMX and attitudes toward change.

Individual's attitudes toward change is claimed to be a product of; their need for personal growth, their ability to see change as a learning opportunity, their ability to have control over the change process, and their internal work motivation (Elias, 2009; Dunham, Grube, Gardner, Cummings & Pierce, 1989). Dweck (1986; 1999; 2006) explain how individual's mindset affect their motivation to take on challenges, and how they deal with setbacks and failures. Mindset is the beliefs individuals have about human abilities, characteristics and intelligence. Following the argument that mindsets influence and shape individual's motivational and behavioural responses to situations, how they look at failure, in addition to their performance (Dweck, 1986; Dweck, 1999; Dweck, 2006; Tabernero & Wood, 1999; Blackwell, Trzesniewski & Dweck, 2007; Murphy & Dweck, 2016; Rattan, Savani, Chugh & Dweck, 2015; Dweck & Leggett, 1988), we propose that individual's mindset will have an influence on their attitudes toward change. Dweck (2006) argues that individuals with growth mindset, which is the belief that intelligence and abilities is malleable and can be developed, gains confidence by mastering challenging and new tasks. On the other hand, individuals with fixed mindset, which is the belief that intelligence and abilities are an unchangeable, fixed "entity", do not take on new tasks and challenges where their abilities are tested. Setbacks and efforts undermine the confidence of individuals with a fixed mindset, and make them more resistant to development and change (Dweck, 2006).

The present study aims to contribute to the *organizational change* literature, by looking at how high-quality LMX will influence employee's attitudes towards organizational change, and whether mindset mediates this relationship. It may be of importance to study the concept of mindset in relation to organizational change, because mindset explains how individuals deal with, and adapts to, challenges and new tasks (Dweck, 1999; Dweck, 2006). It can be crucial for organizations and leaders to know what kind of mindset they endorse, both in terms of recruiting, and developing their employee's and leader's skills.

To our knowledge, there has not yet been drawn any comparisons between mindset and how it can influence individual's attitudes toward change, or whether individual's mindset can be important to consider during organizational change, in general. This is why we want to include mindset as a concept that could add to the existing literature on individuals during organizational changes. Mindset could be of importance to companies implementing change initiatives, because in companies endorsing a growth mindset, leaders have mentioned that their employees are more innovative, collaborative and more committed to learning and growing (Murphy & Dweck, 2010; Senn Delaney Leadership Consulting Group & Dweck, 2014). Organizations that takes advantage of growth mindsets and focus on employee's opportunity to grow and develop, may experience considerable advantages in terms of organizational support and innovation (Harvard Business Review, 2014).

Further research is needed on the antecedents of attitude toward organizational change, in different work settings and organizations. Additional research can support the generalization of antecedents of attitudes toward change, as well as establish what might influence employees in relation to changes in organizations (Yousef, 2000; Rashid, Sambasivan & Rahman, 2004; Lines, 2005; Elias, 2009). Specifically, there is a need for an investigation into the relationship between leaders and their subordinates, and their attitudes toward organizational change. This could be important because leadership is considered to be a key element in organizational change (Yousef, 2000).

These aspects could be of importance for both organizations and leaders because they can create awareness of the factors that influence individual's attitudes toward change, in addition to challenges and new tasks. Hence, leaders can create strategies for how to implement organizational change successfully. In addition, leaders can become more mindful of how the relationship they have with their employees, and how their employee's mindsets influence their attitudes toward change.
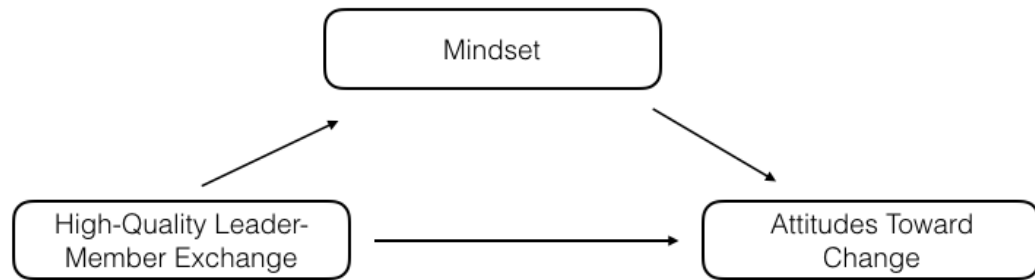
Figure 1. *The mediating role of mindset on the relationship between high-quality LMX and attitudes toward change.*

Theory and Hypotheses

Organizational Change

In the 21st century it has become increasingly important for organizations and leaders to implement change successfully. Previously change was a transactional event, but in recent years it has become more open-ended, radical, complex, personal, and a continuous process (Anderson & Anderson, 2001). Organizational change is defined as a deliberate planned change, either in structure, systems, processes, or in product market, to improve either one or more of the organizational objectives (Lines, 2005). Organizational changes vary in depth, such as transformational change, which is a large-scale change, to small-scale changes, limited to a group or department. Transformational change involves radical, frame-breaking, and fundamentally new ways of thinking, solving problems and doing business (Huczynski & Buchanan, 2013). Allowing employees to participate in the planning and implementation of change initiatives increases the effect of change acceptance (Coch & French, 1948).

Change is often introduced with high expectations of improving performance. Organizations as we know them consists of people, and if the people do not change, there is no organizational change (Shneider, Brief & Guzzo, 1996). Change is a multi-dimensional process approach, meaning that change must be implemented at individual, relationship, team and organizational level, and leaders must attend to all levels when implementing a change (Anderson & Anderson, 2001). Research on leadership uncovers the solid effect leaders have on their

follower's behaviour and attitudes (Gerstner & Day, 1997). Especially, how leadership during change may depend on the exchange relationship between a leader and their employees.

Attitudes Toward Organizational Change

Employee's attitudes toward change is argued to be an important element affecting whether an organization's change efforts are successful, or not (Elias, 2009; Lines, 2005; Vakola & Nikolau, 2005; Dunham et al., 1989). Attitudes toward organizational change is defined as a person's overall positive or negative evaluation of a change (Lines, 2005). The formation of an individual's attitudes is based on that individual's consideration of a subset of characteristics drawn from an attitude object (Lines, 2005). Attitudes can be hard to change, because individuals may have resistance from within (Dunham, 1984). In an organization, an individual can possess a general attitude toward change, but at the same time possess different attitudes about different change initiatives (Choi, 2011).

There are three types of individuals, or groups responses to organizational change; affective, cognitive and instrumental (Elizur & Guttman, 1976). This construction of attitudes toward change, or alternate versions of it, have been studied and supported by several researchers (Elias, 2009; Dunham et al., 1989; Piderit, 2000). An individual's attitude toward changes in general consists of; the individual's cognitions about change, affective reactions to change, and behavioural tendency toward change (Dunham et al. 1989). The cognitive component of an attitude is made up of the information a person may have about an attitude object, which is based on what the person believes to be true. The affective component consists of the feelings an individual has toward an attitude object. It involves evaluation and emotion, and can in general be expressed as a like or dislike towards the attitude object. The behavioural component consists of the way a person intends to behave toward an attitude object. The combination of beliefs and emotions, that forms into an attitude toward change, influences emotions evoked by the change initiative, behaviours toward change, and the processing of change-relevant information (Lines, 2005).

As antecedent to attitudes toward change, Dunham et al. (1989) found that tolerance for ambiguity, dogmatism, growth need strength and locus of control

were all related to employee attitude toward change. This argument is supported by Elias (2009), who claims that one can envision how an individual with weak growth needs can have negative attitudes toward organizational change, because it would require development, growth, and effort, that goes beyond the typical call of duty. Individuals who are intrinsically motivated for a task will possess positive attitudes toward organizational change, because it will enable new goals and experiences (Elias, 2009).

Other examples of contextual variables that affects individual's attitudes toward change is argued to be leader-member relationships and organizational policies (Choi, 2011; Elias, 2009; Lines, 2005; Dunham et al., 1989). A climate characterized by employee involvement, information sharing and trust, in addition to effective leadership practices and capabilities to accommodate the change initiative, have been emphasized as important factors influencing individual's attitudes toward change. When employees feel involved in decision making and feel that the information sharing in the organization is open, they are more likely to be open to change and develop a positive attitude toward change (Choi, 2011; van Dam et al., 2008). Rafferty and Simons (2006) found that when employees trust their leaders, they are more likely to support the change initiative and believe that they feel capable of implementing it. In addition, employees are less cynical to organizational change when they trust their leaders (Qian & Daniels, 2008).

Leader-Member Exchange

The central premise behind LMX theory is that within a work unit, different types of relationships develop between leaders and their subordinates (Liden, Sparrowe & Wayne, 1997). It is suggested that roles are not only determined by written and formal job descriptions, but that roles are developed through informal processes (Graen, 1976). This is supported by Parish et al. (2008) who proposes that leaders influence organizational members by developing social exchanges with their subordinates. Role-making occurs when organizational members are being assimilated into new positions, which involve individuals who are vested in the performance of other individuals (Liden et al., 1997).

Research on LMX theory has been gaining momentum in recent years, and has since its introduction 25 years ago undergone many refinements (Graen & Uhl-Bien, 1995). LMX started as an alternative to Vertical Dyad Linkage (VDL) where Graen and his colleagues (Dansereau, Graen, & Haga, 1975) found that in nearly all units', leaders differentiate among their subordinates in terms of leader behaviour (Liden & Graen, 1980). Throughout time, LMX has progressed to a prescription for generating more effective leadership by developing and maintaining a mature leadership relationship (Graen & Uhl-Bien, 1995). Grønhaug et al. (2003) argues that effective leadership is not only a question of how leadership behaviour is customized to situational factors, but to an equal extent how each employee can help their leader to become more effective. Throughout the LMX-theory, the special exchange relation that is developed between a leader and its employees is emphasized. To achieve a close relationship to their employees, a leader may control what are important and desirable to their employees (Grønhaug et al. 2003). Research on social exchange theory argue that exchange relationship between the subordinate and their closest leader might be reliant on the nature of the exchange relationship, as well as the context in which the exchange relationship exists (Frazier, Johnson, Gavin, Gooty & Snow, 2010; Cole, Schaninger Jr. & Harris, 2002; Dienesch & Liden, 1986)

Theorists distinguishes between high- and low-quality relationship, where high-quality ("in-group") relationships are characterized by subordinates making contributions that goes beyond their formal job descriptions, which are often long-term. In return, they receive great attention, support and sensitivity from their supervisors. Several meta-analytical reviews show a positive association between high-quality LMX relationships and outcomes such as; performance ratings, objective performance, job satisfaction and organizational commitment (Graen & Uhl-Bien, 1995; Gerstner & Day, 1997; Ilies, Nahrgang & Morgeson, 2007; Dulebohn, et al., 2011). Low-quality ("out-group") relationships are categorized by mutual expectations of reciprocity and contributions that adhere only to what is stated in the employment contract. These relationships are often short-term (Liden & Graen, 1980; Yukl, 2013; Buch & Kuvaas, 2016; Sherony & Green, 2002; Yukl & Van Fleet, 1990). According to theory, most leaders develop a high-quality

relationship with a small number of trusted subordinates (Yukl, 2013). LMX relationships may be represented by both SLMX and ELMX relationships (Kuvaas et al., 2012). The exchange is ongoing and built on feelings of diffuse obligations and not an immediate "pay off". As previously mentioned, SLMX and ELMX is generally identified as high- and low-quality LMX.

There has been found convergence of "in-group" LMX relationships and mentoring functions (Thibodeaux & Lowe 1996). It is also suggested that in-group LMX individuals are in possession of higher levels of emotional involvement, and self-development concepts due to mentoring, than out-group LMX individuals. LMX theory focuses directly on one-to-one relationships between supervisors and employees, much like mentoring (Raabe & Beehr, 2003). Solsik and Godshalk (2000) suggest that transformational leadership behaviour displayed by mentors can foster the development of perceptions of mentoring functions by individuals through emotional and self-concept based structures.

The transactional and transformational leadership model was developed by Bass (1990), which states that transformational leadership occurs when leaders broaden the interest of their employees. This is done by generating awareness and acceptance of the purpose and mission of the group, which lead employees to look beyond their own self-interest for the good of the group. Transactional leadership refers to leader's requests based upon their hierarchical status, and employee compliance based on the economic rewards the leader controls. The motivation of the employee is based on the satisfaction of their self-interest, without consideration of the good of the group. Further, it is argued that LMX can be both transactional and transformational, as it begins as a transactional social exchange, and evolves into a transformational social exchange (Graen & Uhl-Bien, 1995).

High-Quality LMX and Attitudes Toward Change

Previous research on LMX and organizational change have looked at the connection between LMX and organizational commitment (e.g., Duchene, Green, & Taber, 1986; Green, Anderson, & Shivers, 1996; Kinicki & Vecchio, 1994; Major, Kozlowski, Chao, & Gardner, 1995). Organizational commitment has been argued to be an antecedent to attitudes toward change (Choi, 2011; Benkhoff, 1997; Meyer, Stanley, Herscovitch & Topolnytsky, 2002). However, the concept

of high-quality LMX and attitudes toward change has not been adequately studied, but research has argued that the relationship between leaders and employees is important in organizational change (van Dam, Oreg & Schyns, 2008; Epitropaki & Martin, 2005; Choi, 2011; Piderit, 2000; Tierney, 1999). Previous studies show that high-quality LMX relationships gives employees more information and opportunities to participate in a planned change (Epitropaki & Martin, 2005; van Dam et. al, 2008). When employees feel more involved and allowed to participate, they are more likely to be open to change and develop positive attitudes toward change (Choi, 2011).

A study conducted by van Dam et al. (2008) looked at how characteristics of the daily work context related to employee's resistance to change, through aspects of the change process. They found that employees in high-quality LMX relationships received more information and opportunities for participating. The respondents also experienced more trust in management and reported less resistance towards organizational change. In addition, they found that organizational change may have a smoother progress in environments with high-quality LMX relationships. This is supported by Tierney (1999) who suggests that LMX and change-oriented contexts are related to employee's reactions to specific organizational changes. However, Piderit (2000) argues that it is not enough for leaders to overcome employee resistance to change, they must generate employee support and enthusiasm for the change initiative, in order to successfully implement a change. Further, it is argued that the information sharing between employees and leaders is a crucial component of successful organizational change, because it can help reduce uncertainty and anxiety (van Dam et al. 2008). There has been found a reliable relationship between the quality of exchanges between subordinates and their leaders, and a range of psychological reactions (Gerstner & Day 1997). Thus, having a positive relationship with one's leader, results in positive reactions to work. Based on this we have developed the following hypothesis:

Hypothesis 1. *There is a positive relationship between high-quality leader-member exchange and employee's attitudes toward change.*

The Mediating Role of Mindset

Mindset is defined as "the leverage point for transforming organizations" (Anderson and Anderson, 2001, p. 78). Mindset is further explained as one's worldview, the area from which you experience your reality and form perceptions about it. Mindset, is the beliefs individuals have about human abilities, intelligence and characteristics (Anderson and Anderson, 2001). It is claimed to have an influence on, and shape individual's motivational and behavioural responses to situations (Tavernier & Wood, 1999). Mindsets are constructions of knowledge that include beliefs about the endurance of an attribute, and explain the way in which individuals ascribe meaning to events (Ross, 1989). The assumption that personal beliefs is an essential part of understanding human behaviour has been influential in psychology (Burnette, Vanes, O´Boyle, Pollack & Finkel, 2013). A considerable amount of research on mindset, focuses on how individual's mindset affect their performance in terms of goal achievement and motivation, and how they look at failures (Blackwell et al., 2007; Murphy & Dweck, 2016; Rattan et al., 2015; Dweck & Leggett, 1988; Dweck, 1986). From a study by Dweck and Leggett (1988) we know that mindset generates a framework for interpreting and responding to events that individuals experience. It is important to mention that individuals can hold different mindsets in different domains. For example, an individual can have a growth mindset when it comes to intelligence, but at the same time endorse a fixed mindset when it comes to athletics (Dweck et al, 1995; Tabernero and Wood, 1999).

It matters what individual's mindsets are, and whether they believe that their abilities can develop through nurturing and effort, because changing individual's mindset can solve conflicts and foster positive attitudes (Dweck, 2011). Mindset can be divided into growth and fixed mindset, where individuals who endorse a growth mindset, believe that abilities and intelligence can be developed through experience and learning, and that individuals can change who they are and their behaviour (Dweck, 2006). Individuals with a growth mindset tend to take on challenging tasks that promote skill acquisition and involves using their efforts to overcome difficulties (Blackwell et al., 2007). Individuals with a growth mindsets claim that if they fail, it means they are not fulfilling their

potential, not reaching for the things they value (Dweck, 2006). Hence, they look for opportunities to improve their abilities and performance, through utilizing more effort or engaging in remedial actions (Hong Dweck, Chiu, Lin & Wan, 1999).

Individuals with a fixed mindset believe in more fixed, uncontrollable abilities and intelligence (Dweck, 2006). Individuals with a fixed mindset believe that human traits, attributes, personality and morality are relatively fixed. They are more concerned with measuring performance in reference as to having good traits or not (Murphy & Dweck, 2016). Individuals who endorse a fixed mindset are less likely to believe in development and change. They are more concerned with showing their success than learning new abilities, and are willing to cheat and hide information in order to prove it (Blackwell et al., 2007).

Researchers studying the concept of mindsets argues that a growth mindset fosters greater learning and achievement, especially during challenging transitions (Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015, Tabernero & Wood, 1999). In addition, individuals with a growth mindset are more acceptant to challenges and new strategies, while individuals with a fixed mindset avoid challenges and give up more easily in the event of setbacks (Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015; Dweck, 1996; Dweck & Leggett, 1988). It has been discussed how individuals with a fixed mindset, which focus' on ability judgments (attributes failure to a lack of ability), have a tendency to avoid and withdraw from challenges, whereas individuals with a growth mindset have a tendency to seek and be energized by challenges (Dweck, 1986).

As mentioned, individuals with growth mindset are more concerned with developing their skills and learning, than showing how smart they are (Dweck, 2006). The *growth need strength* concept is described as an antecedent to attitudes toward change (Elias, 2009; Dunham et al., 1989). It explains individual's need for personal growth and development, and is essential for motivation in complicated tasks (Elias, 2009; Dunham et al., 1989). Dunham et al. (1989) argues that the more past changes are perceived as positive, the more receptive an individual may be to changes, because it can satisfy growth needs. Both growth need strength and growth mindset describes individual's need to learn and develop themselves, and

what factors contributes to their motivation. However, they are distinct in the way that the growth need strength concept explains psychological needs (Elias, 2009), while growth mindset also explains how individuals view challenges, and how they deal with setbacks and failure (Dweck, 1986; 1999; 2006). Therefore, it could be argued that growth mindset can contribute to the explanation of what influence individual's attitudes toward change beyond, or in addition to, what growth need strength does.

The conceptualization of mindset and how it can be related to the *locus of control concept* (Dunham et al., 1989) has been discussed by Dweck and Leggett (1988). Locus of control has been presented as a possible antecedent of employee's attitudes toward change (Dunham et al., 1989). Their similarity is described as the fact that both concepts deals with the question of how one perceives oneself; as someone who has personal control over important elements in one's life, or not. Their distinction, however, is that the locus of control concept deals with perceptions of control over events that happen, as something influenced by either external or internal forces. The concept of mindsets begins with beliefs that may create the locus of control beliefs; perceptions of control over the basic attributes that influence events, and outcomes that take place. Therefore, mindset can contribute to the explanation of what influence individual's attitudes toward change beyond what locus of control does.

It is argued that leaders need to ask critical questions of themselves, and transform their own mindsets, in order to implement new design and execute business strategies. Transformation is initiated by improvement of leader- and employee mindset (Anderson & Anderson, 2001). Because of the effect mindset have on individual's risk taking and task accomplishment, as well as on their performance and motivation (Dweck, 2006; Dweck & Murphy 2010; Blackwell et al., 2007; Rattan et al., 2015; Dweck & Leggett, 1988; Dweck, 1986), we propose that individual's mindsets will have a positive influence on individual's attitudes toward organizational change.

Multiple studies argue that LMX has been found to be positively related to followers (employee's) performance and workplace attitudes such as; organizational commitment, well-being and job satisfaction (Seers & Graen, 1984;

Gerstner & Day, 1997; Kim & George, 2005; Graen, Novak & Sommerkamp, 1982; Scandura & Graen, 1984; Graen & Uhl-Bien, 1995). For example, studies by Graen and colleagues (Graen et al., 1982; Scandura & Graen, 1984; Graen, Scandura & Graen, 1986) have shown that by increasing the number of high-quality LMX relationships in a unit, the overall unit performance increased.

In high-quality LMX relationships, leaders may persuade followers to engage in activities they otherwise would not, they develop a relationship with mutual reciprocal influence (Graen & Uhl-Bien, 1995). In these high-quality LMX relationships leaders influence employees beyond what is specified in formal descriptions (Epitropaki & Martin, 2005). Further, having a positive relationship with one's leader, may lead to positive reactions to work (Gerstner & Day, 1997). It affects employee's entire work experience in a positive manner; higher performance, higher overall satisfaction, and affective outcomes. On the other hand, when employees are in a low-quality exchange relationship with their leader, their performance may be restricted, and they may be motivated to withhold their effort as a means of offering their supervisor an unfavourable return (Xu, Huang, Lam & Miao, 2012).

It has been indicated that LMX may influence employee's attitudes toward change, and employee's performance (Graen et al., 1982; Scandura & Graen, 1984; Graen, Scandura & Graen, 1986; Kim & George, 2005; Gerstner & Day, 1997). However, there appears to be little, perhaps no, research that has examined potential mediators of the relationship between high-quality LMX and attitudes toward change. This is why the present study aims to include such a mediation variable, by looking at mindset.

As mentioned, mindset is established as important for individual's perception of challenges and new tasks, which may occur during an organizational change (Dweck, 1999; Dweck, 2006; Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015, Tabernero & Wood, 1999). By combining the research on attitudes toward change and mindset, it would suggest that individuals with growth mindsets are more likely to have positive attitudes toward change, because they see challenges as a means to improve their ability and performance (Hong et al., 1999; Blackwell et al., 2007). They are more likely to embrace the change

efforts made by the organization, in addition to identify effective learning strategies (Elliot & Dweck, 1988). On the other hand, individuals with fixed mindsets are more likely to have negative attitudes toward change, because they are less likely to believe in development and change, and more concerned with showing how successful they are instead of learning new abilities (Blackwell et al., 2007).

We propose that high-quality LMX is important for attitudes toward change; however, it is likely that high-quality LMX will influence employee's attitudes toward change through individual's mindset. A mediation model suggests that individual's mindset accounts for some of the relationship between high-quality LMX and attitudes toward change (Baron & Kenny, 1986). The mindset an individual has may explain more of the relationship between high-quality LMX and their attitudes toward change, than if individual's mindset is not considered. In regards to this, we have developed the following hypotheses:

Hypothesis 2. *Growth mindset mediates the positive relationship between high-quality LMX and attitudes toward change.*

Hypothesis 3. *Fixed mindset mediates the negative relationship between high-quality LMX and attitudes toward change.*

Methodology

Sample and Procedure

The data used in this study was provided by our supervisor to conduct further analysis on existing data.[1] A questionnaire was distributed to businesses associated with a major bank and finance alliance. The purpose and the distribution of the survey was first clarified with the management of each company. In order to achieve the highest response rate possible, it was further

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[1] Initially we collected data from a Norwegian company. However, we faced some challenges in regards to the response rate, and therefor had to choose an alternative solution, namely receiving data from our supervisor.

encouraged to embed the survey through internal departmental meetings between leaders and employees in the various businesses.

Prior to the survey, all respondents received an email informing who was responsible for conducting the survey, what the purpose of the survey was, and the estimated time spent answering the survey. It was also informed that the survey would be conducted as a two-step questionnaire, where those who participated in the first round of the survey, were also invited to participate in the second round. To ensure a high response rate, all respondents were reminded of the deadline in both rounds. To ensure that the ethical standards were met in this study, the questionnaire was evaluated and approved by the Norwegian Social Science Services.

The reason for conducting a two-part survey was to avoid systematic measurement errors in the explanatory variables (Worse-off, MacKenzie, Lee & Podsakoff, 2003). The answer of one question may influence later answers in the questionnaire. The first part of the survey included high-quality LMX (SLMX), while the second part of the survey included mindset and attitudes toward change. The time period between the two surveys was two weeks.

The survey was sent to 2,136 employees, as an electronic questionnaire through the Qualtrics system. There were 1,084 respondents on the first part of the survey, while 841 responded to the second part of the survey. This corresponds to a response rate of 50,7 % on the first round, and 77,6% on the second round. The overall response rate was 39,5%.

Measures

Measurement items for the constructs included in this study are from theoretical established scales, which meet the criteria of validity and reliability. All items were measured using a 5-point Likert-scale, where the respondents were asked to rate statements from 1 ("strongly agree") to 5 ("strongly disagree"). Attitudes toward change and the mindset scale were translated from English to Norwegian, since the study was conducted in Norway. The translation-back-translation method was used.

Attitudes toward organizational change

Attitudes toward organizational change was measured by the 18-instrument scale developed by Dunham, Grube, Gardner, Cummings and Pierce (1989). Respondents agreed or disagreed with statements such as, "Change usually benefits the organization" and "Change frustrates me". In terms of measurement reliability, Yousef (2000) reported a Cronbach alpha for the scale of .77. From our study, results showed a Cronbach alpha of .92.

Social leader-member exchange

SLMX was assessed by eight items, developed by Kuvaas, Buch, Dysvik, & Haerem (2012). The scale was used to establish whether employees had a high or low SLMX relationship with their closest leader. It contained items such as; "I experience that my closest leader has invested a lot in me". The SLMX scale has been reported to have a Cronbach alpha of .92 (Buch et al., 2011). Our results showed a Cronbach alpha of .91.

Mindset

Mindset was measured by the eight item scale, developed by Levy, Dweck, and Stroessner (1998). It consists of eight items related to either growth or fixed mindset. Statements were for example; "You have a certain amount of intelligence, and you cannot really do much to change it" or "You can always substantially change who you are". Research has indicated that the mindset scale has a good internal consistency (Cronbach alpha ranging from .82 to .97) and test-retest reliabilities at 2 weeks (Cronbach alpha ranging from .80 to .82) (Dweck, Chiu & Hong, 1995). Our results showed a Cronbach alpha of .88.

Control variables

The control variables in this study was; *gender, age, leadership tenure, work domain, leadership responsibility* and *working hours.* Leadership tenure, age, and working hours were measured by number of years, in intervals. Literature has found that differences with the employees and leaders in factors such as gender, age, working hours, etc. has influenced the relationship between leader and employee (Dysvik & Kuvaas, 2011). In addition, it has been found evidence

of generational differences influencing work attitudes (Twinge 2010). Gender was measured as a dichotomous variable coded such that 1 was female, and 2 was male. Leadership responsibility was also included as a control variable, as whether or not employees have managerial responsibilities will make them respond differently to high-quality LMX perceptions (Buch et al., 2014). Leadership responsibility was measured as a dichotomous variable coded such that not having leader responsibility was 1, and having leader responsibility was 2. Leadership tenure was measured as the follower-supervisor tenure in years. Research has indicated that how many years the individual has worked with its closest leader could influence their relationship (Maslyn & Uhl-Bien, 2001; Kuvaas et al., 2012). Work domain was measured by industry intervals, for example; primary industry and related industries = 1, oil recovery and energy = 2, and so on. This variable was included because it has been claimed that individuals can have different mindsets in different domains (Dweck et al, 1995; Tabernero and Wood, 1999).

Analyses

The data was analysed in several phases. First, an exploratory factor analysis (EFA) was conducted, using the whole sample ($N = 852$). The EFA indicated that there were no cross loadings, meaning that no items loaded on the same factors. Items that had factor loadings less than .50 were eliminated, based on suggestions by Nunnally and Bernstein (1994). Reliability and validity analysis was performed following Nunnally (1978) recommendation of a minimum level of .70 Cronbach alpha values. The EFA was conducted using promax rotation, which is an Oblique rotation, that allows the factors to correlate. Using this kind of rotation will give a more accurate solution than for example orthogonal rotation, where one could lose valuable information (Osborne & Costello 2005).

Following the EFA, we conducted a confirmatory factor analysis (CFA) to evaluate the fit of our model. Model fit was determined by Root Mean Squared Error of Approximation (RMSEA), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Standardized Root Mean Squared Residual (SRMR). RMSEA value close to .06, TLI and CFI values close to .95, and an SRMR value close to .08 is needed before concluding whether there is a relatively good fit between the

hypothesized model and the observed data (Hu & Bentler, 1999). Chi-square indicates an acceptable fit when it is below five (Schumacker & Lomax, 2012). Chi square is the traditional measure which is used to test the closeness of model fit. With large samples, one might obtain a significant difference from the chi-square statistics despite a good fit of the model (Anderson & Gerbing, 1988; Bollen, 1989).

Further we conducted a regression analysis to test the hypotheses. To test the mediating influence of mindset we conducted a hierarchical regression analysis, recommended by Cohen and Cohen (1983). According to Baron and Kenny (1986) there are three steps that need to be met to find support for a mediating relationship. The independent variable (IV) must be significantly associated with the mediating variable (MV) in the first equation. Second, the IV must be significantly associated with dependent variable (DV) in the second equation. Finally, when the mediator is included in the regression model, the relationship between the IV and DV disappear (full mediation) or diminish (partial mediation). In addition, PROCESS macro analysis, developed by Andrew Hayes (2014), was used as a supplement to further test the mediation hypotheses. PROCESS is a tool used to test the mediation of a model a number of times, through bootstrapping. Bootstrapping reports the degree of mediation, and is interpreted by assessing whether the confidence intervals include zero or not (Field, 2013; Hayes, 2014). PROCESS estimates the coefficients of the model by using either OLS regression or maximum likelihood regression. In addition, PROCESS generates confidence intervals for the direct and indirect effects in mediation models (Hayes, 2014). PROCESS was used as a supplementary analysis to support the results found from the hierarchical regression.

To test the significance of the mediation we conducted a Sobel test (http://quantpsy.org/sobel/sobel.htm). The Sobel test makes one able to determine whether the reduction in the effect of the IV, after including the MV, is significant, hence whether the mediation effect is statistically significant. To conduct a Sobel test, one needs to assume a large sample size, so that the rough critical value for the two-tailed version of the test is assumed to be sampling the

distribution of variables to be normal, and that α = .05, is +/- 1.96 (Preacher & Leonardelli, 2001).

Results

Exploratory Factor Analysis

Results from the EFA indicated a four-factor structure with eigenvalues greater than one, which accounted for 56.5% of the variance. The attitudes toward change variable loaded on two factors, explaining 40.3% of the variance. High-quality LMX explained 13% of the variance in attitudes toward change, and mindset explained 11% of the variance in attitudes toward change. The result from EFA is shown in Appendix 1.

Confirmatory Factor Analysis

A CFA was conducted based on the factor loadings from the factor analysis. The model indicated a relatively good fit; $\chi^2(489) = 2286$, $p < .001$, RMSEA = .06, CFI = .88, TLI = .87, and SRMR=.05. Previous research has argued for the use of attitudes toward change as one factor consisting of all 18 items (Elias, 2009), or dividing the items into three factors; affective, cognitive and behavioural (Yousef, 2000; Dunham et al., 1989; Elias, 2009). Further, we assessed the model where attitudes toward change was divided into affective, cognitive and behavioural. The results from this CFA was; $\chi^2 (517) = 2665$, $p < .001$, RMSEA = .07, CFI = .86, TLI = .85, and SRMR=.05, which indicates a relatively good fit. However, correlation analysis showed that the correlation between the three factors; affective, cognitive and behavioural, were relatively high, above 0.70 (Vogt, 2007). Therefore, we decided to follow Elias (2009) suggestion of using a model where all attitudes toward change items loaded on *one* factor. The chosen model, shown in Figure 2, indicated a good fit to the data, $\chi^2 (492) = 2731$, $p < .001$, RMSEA = .07, CFI = .85, TLI = .84, and SRMR=.06.
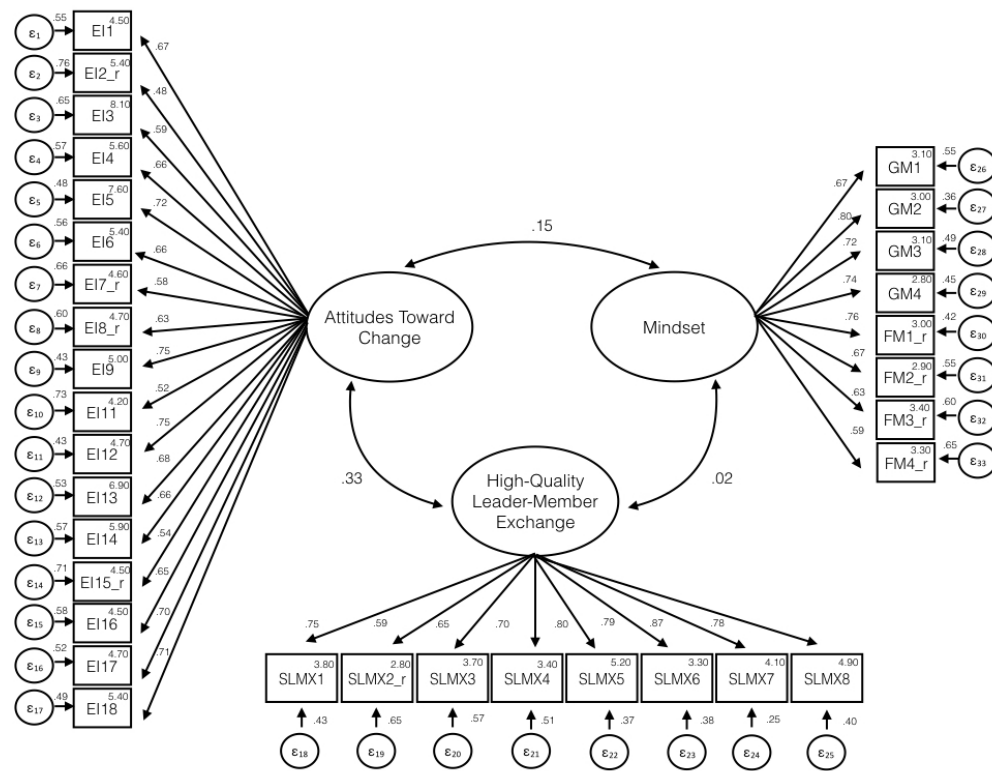
Figure 2. *CFA model*

Note. EI=attitudes toward zchange, SLMX=social leader-member exchange, GM= growth mindset and FM= fixed mindset.

Descriptive Statistics

Means, standard deviations, bivariate correlations and Cronbach alpha coefficients for all variables are presented in Table 1. As indicated, all scales had acceptable reliability estimates ranging from .88 to .92, which indicates high reliability according to Tabachnick and Fidell (2001).

Table 1

Descriptive Statistics

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Gender	1.46	.50									
2 Age	3.62	1.06	-.02								
3 Leadership tenure	1.38	1.03	.01	.21***							
4 Work domain	8.86	3.95	-.10**	-.02	-.05						
5 Leader responsibility	1.17	.38	.10**	.05	.06*	-.05					
6 Working hours	2.28	.75	.23***	.03	.05	-.09**	.44***				
7 High-quality leader-member exchange	5.21	1.10	-.01	-.02	.06*	-.04	.18***	.11***	(.91)		
8 Mindset	4.01	.97	-.01	.05	.02	.07*	-.00	.05	.01	(.88)	
9 Attitudes toward change	5.33	.67	.00	-.05	.01	-.03	.32***	.18***	.30***	.14***	(.92)

Note. N=852. Reliability coefficients are in parentheses. Gender: Female=1; Male=2; Age:16-25=1; 26-35=2; 36-45=3; 46-55=4; 56+=5; Leadership Tenure: < 1 year=0; 1-3 years =1; 4-6 years =2; 7-9 years=3; 10-13 years=4; 14+=5; Work Domain: primary industry and related industries=, oil, recovery, energy=2; industry=3; building, construction, renovation=4; commerce, hotel, restaurant=5; transport, post, telecommunications=6; financial services=7; public administration=8; health services=9; HRM=10; IT-technology =11; marketing=12;R&D=13; Sales=14; quality insurance=15; legal practice=16; PR=17; customer service =18; other services=19; Leader responsibility: No=1; Yes=2; Working hours: <37,5h=1; 38-40h=2; 41-45h=3; 46+=4.

*p < .05. **p < .01. ***p < .001.

Pearson correlations between variables reported a non-significant correlation between high-quality LMX and mindset ($p > .05$). Attitudes toward change showed a significant correlation between both high-quality LMX and mindset ($p < .001$). Correlations also showed that leader responsibility and working hours were significantly correlated with attitudes toward change ($p < .001$). In addition, mindset correlated significantly with working domain ($p < .05$).

Mediation Analysis

Prior to the hierarchical regression analysis, we examined collinearity, using Hair et al.'s (2010) threshold of .10 for the tolerance values. The diagnostics showed that the lowest tolerance value observed in our items were .78, which is far above the recommended value. Therefore, collinearity does not seem to be an issue in this study.

Hierarchical regression was used to test the hypotheses in this study; the mediation effect of mindset, which proved to not be significant on a 95% confidence interval, and the positive relationship between high-quality LMX and attitudes toward change. Thus Hypothesis 2 predicting that *A growth mindset mediates the positive relationship between high-quality LMX and attitudes toward change,* and Hypothesis 3 predicting that *A fixed mindset mediates the negative relationship between high-quality LMX and attitudes toward change*, was not supported. However, both high-quality LMX ($b = .24$, $p < .001$) and mindset ($b = .14$, $p < .001$) was significant to attitudes toward change. Thus, Hypothesis 1 predicting that *High-quality LMX is positively related to attitudes toward change* was supported. The hierarchical regression results are shown in Table 2.

Table 2

Hierarchical regression analysis for attitudes toward change

Variable	Step1	Step2
Gender	-.05	-.04
Age	-.06	-.06
Work domain	-.01	-.02
Leadership tenure	-.03	-.03
Leader responsibility	-.26***	-.26***
Working hours	.06	.05
High-quality leader-member exchange	.24***	.24***
Mindset		.14***
Adjusted R^2	.16	.18
ΔR^2	.16***	.02***
F	23.97***	23.72***
ΔF	23.97***	-.25***

Note N=852. Standardized regression coefficients are shown.

* *p* < .05. ** *p* < .01 *** *p* < .001

The results from PROCESS macro analysis (Hayes, 2014) indicated that the mediation model offered a poor fit to the data, as found from the hierarchical regression analysis. The conditions by Baron and Kenny (1986) for a mediating relationship were not met. Attitudes toward change was significantly associated with mindset (*p* < .001), and high-quality LMX (*p* < .001). However, the relationship between the attitudes toward change and high-quality LMX did not disappear or significantly diminish after mindset was entered into the equation.

From PROCESS analysis, as from hierarchical regression, we found that high-quality LMX did not have a significant influence on mindset with 95% confidence interval (*p* > .05). Removing mindset as a mediator from the model did

not have a significant influence on the model, showing that high-quality LMX had an influence on attitudes toward change, without being mediated by mindset. The indirect effect of high-quality LMX on attitudes toward change with mindset as mediator was .0013, and the direct effect of high-quality LMX on attitudes toward change was .15. However, as found from the hierarchical regression analysis both high-quality LMX (b =.15, t = 7.40, $p < .001$) and mindset (b =.09, t = 4.30, $p < .001$) had a significant influence on attitudes toward change. The Sobel test results for mindset as a mediator were not significant ($z = 0.39$, $p > .05$), calculated as the ratio of indirect effect to error, from the website of Preacher and Leonardelli (2006). Results from regression analyses also indicated that growth mindset was positively related to attitudes toward change ($b = .10$, $p < .01$). On the other hand, fixed mindset was negatively related to attitudes toward change ($b = -.16$ $p < .001$).

Discussion

Theoretical Contributions

Due to the increased attention as to why change initiatives often fail, the primary objective of this study was to examine the link between high-quality LMX and attitudes toward change, to better understand how to achieve successful change. An additional purpose was to investigate the predictive mediating influence mindset had on the relationship between high-quality LMX and attitudes towards change. Among the key findings, both high-quality LMX and mindset influenced employee's attitudes toward change. These findings are in line with previous research which explains how LMX plays an important role in employee's attitudes toward change (Choi, 2011; Elias, 2009; Lines, 2005; Dunham et al., 1989; van Dam et al., 2008; Tierney, 1999; Woodman and Dewett, 2004). It is emphasized that in order to achieve a successful change, employees need to have the right attitudes. Researchers have found that when employees feel involved and informed about the change process, they endorse more positive attitudes toward change (van Dam et al., 2008; Choi, 2011; Lines, 2005).

Accordingly, our study contributes to this research by providing additional support to the existing change literature. Our study indicated that mindsets were significant for attitudes toward change and that this could be an important contribution to existing literature, because it entails individual's cognitive mechanisms in a way that to our knowledge has not been studied before. Most research has looked at antecedents of attitudes toward change as individual's needs, motivation and their ability to endure change (Dunham et al., 1989; Lines, 2005; Elias, 2009). However, the inclusion of mindset in organizational change literature, as an antecedent to attitudes toward change, can explain how individuals have an already established mindset that could influence the creation of their attitudes toward change. As previously mentioned, mindset begins with beliefs that may create locus of control beliefs, which is an antecedent to attitudes toward change. Therefore, mindset may serve as an additional or even enhanced explanation of what creates individual's attitudes toward change (Dunham et al., 1989; Dweck & Leggett, 1988).

Our results showed that employees who endorsed a growth mindset also endorsed positive attitudes toward change, and those who endorsed a fixed mindset also endorsed negative attitudes toward change. These findings can support the studies by Hong et al. (1999) and Blackwell et al., (2007) which argue that individuals who endorse growth mindsets are more likely to have positive attitudes, in general, because they see challenges as an opportunity to improve their ability and performance. Our results are also in line with research conducted by Dweck and colleagues (Dweck, 1999; Dweck, 2006; Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015, Tabernero & Wood, 1999), who argue that growth mindset fosters learning and achievement in challenging situations, such as a change process. On the other hand, fixed mindset often leads to more negative attitudes because it demands more than what is expected of one.

No evidence for the mediation of mindset on the relationship between high-quality LMX and attitudes toward change was found, but the direct influence of each variable was indicated to be significant and in line with our assumptions based on previous research. This may imply that high-quality LMX is significantly related to attitudes toward change, also when mindset is experienced

as having no influence on the relationship. This is somewhat surprising due to the fact that we know the extent to which mindset influence individuals, in terms of challenges and new tasks (Tabernero & Wood, 1999; Blackwell et al., 2007; Hong et al., 1999; Dweck, 2006; Rattan et al., 2015). These results show that high-quality LMX influence individual's attitudes toward change, at the same time as mindset influence attitudes toward change, but neither of the relationships interfere with each other. Even though an individual has an already established attitude toward change, a high-quality LMX could influence and potentially change their attitudes.

Our findings also showed a relationship between high-quality LMX and attitudes toward change, providing additional support to previous research on the subject (van Dam et al., 2008; Choi, 2011). The direct relationship between high-quality LMX relationships and attitudes toward change, which has been identified in this study, may be beneficial to existing literature on LMX, and its influence on attitudes toward change. Because previous research has mainly looked at LMX and its influence on attitudes toward change, our findings could provide new aspects to the LMX and attitudes toward change literature. Researchers have claimed that having a high-quality LMX with one's employees is highly successful during organizational change, because it can influence employee's performance. In addition, leaders should try to establish this relationship with as many employees as possible (van Dam et al., 2008; Choi, 2011; Graen & Uhl-Bien, 1995). These findings also support the observation that employees in high-quality LMX, who feel involved in decision making and feel that the information sharing in the organization is open, are presumably more open to changes and therefor develop a positive attitude toward change (Choi, 2011; Rafferty & Simons, 2006; van Dam et al., 2008; Lines, 2005). In addition, our findings support Parish et al.'s (2008) view that the relationship between leaders and employees shape employee's attitudes toward change.

Surprisingly, our study found that high-quality LMX had no influence on employee's mindset, which is not congruent with our hypotheses. We found this result to be unexpected because of the important role and influence leaders have on employees (Seers & Graen, 1984; Gerstner & Day, 1997; Kim & George,

2005; Graen et al., 1982; Scandura & Graen, 1984; Graen & Uhl-Bien, 1995). There might be several reasons for why we found this, for example because of culture and work domain. In some cultures, employees are more dependent on their leaders, which could result in high-quality LMX having an influence on employee's mindset. In addition, different work domains could be explanatory of how dependant an individual is on its leader, and how much influence the leader has on employees. Our results indicate that what kind of relationship one has to one's leader, employee's mindset is not influenced by that specific relationship. Looking at this from Dweck´s (2011) point of view, that changing individual's mindset can solve conflicts as well as foster positive attitudes toward change, could be important to achieve successful changes. By altering or directing individual's mindset to foster positive attitudes toward change, one might lower resistance, and the process of implementing a change initiative might go more smoothly.

Although not hypothesized, it should be noted that our study found that both leadership responsibility and working hours were correlated with employee's attitudes toward change. Indicating that employee's previous, and current experience with leadership responsibilities, working hours and their dedication may influence their attitudes toward change in a positive direction. These findings support previous studies which also argue that when employees feel more involved in the organization, they often endorse more positive attitudes (Choi, 2011).

Another interesting finding which was not hypothesized, showed that work domain was correlated with employee's mindset. Due to Tabernero and Wood (1999) and Dweck et al (1995) ´s findings, that one can have different mindsets in different settings, for instance one could have a fixed mindset when it comes to sports but a growth mindset when it comes to intelligence, it could be reasonable to assume that what kind of work domain individuals belong to, may influence what kind of mindset they endorse. For example, an individual working in IT could have a growth mindset which could be a result of the IT industry, and how it fosters learning and the constant need for change. On the other hand, an

individual working within legal practice could have a fixed mindset, which could be a result of that work domain not being in a position of continuous change.

Practical Implications

This study has provided insight into the influence that mindset and high-quality LMX have on attitudes toward change. Firstly, even though this study did not find support for mindset as a mediator between high-quality LMX and attitudes toward change, we did find a statistical significant relationship between mindset and attitudes toward change. Particularly, the result that growth mindset had a positive relationship with attitudes toward change, and fixed mindset had a negative relationship with attitudes toward change, could be an important finding for organizations and leaders. It has been argued that mindset has a significant influence on individual's risk taking and task accomplishment, and how they look at challenges and transitions (Dweck, 2006; Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015, Tabernero & Wood, 1999). It could therefore be important for both leaders and organizations to be aware of the mindset that individuals in the organization endorse. Leaders are often said to serve as change agents that implements, facilitates and promotes change in organizations (Armenakis, Harris & Mossholder, 1993; Kotter 1995; Ford, Ford & D'Amelio, 2008). Leaders may therefore benefit from considering individual's mindset when implementing changes and new strategies, and how individual's mindsets will influence change efforts in the organization.

By being aware of individual's mindset, leaders and organizations can reduce negative attitudes toward change, as individuals with fixed mindsets tends to avoid and withdraw from challenges (Dweck, 1986). Research shows that employees with weak and negative attitudes toward change will resist and could possibly disrupt a change initiative (Lines, 2005). Previous research has also discussed the importance of enhancing growth mindset in organizations (Dweck, 2006; Dweck & Hogan, 2016; Murphy & Dweck, 2010). One example of the implication mindset has on organizations and their development is how the company Enron became bankrupt by only focusing on talent and performance (fixed mindset), when recruiting and developing their employees (Dweck, 2006). Dweck and Hogan (2016) also explain how Microsoft is creating a growth

mindset culture; developing leaders and educating people in having a growth mindset. One example of how organizations and leaders can foster a growth mindset in their organization, is through recruiting and hiring. By focusing on effort and learning, rather than talent and performance in the recruitment process, the individuals that are interested in learning and fulfilling their potential will be drawn to the organization (Dweck & Hogan, 2016). In addition, when organizations and leaders popularize individuals that show the most talent, instead of those that show the most effort and has a higher aspiration for learning, and offers them extra development and coaching, there is a possibility that the remaining employees feel less valued and appreciated (Thunnissen, Boselie & Fruytier, 2013). Extending this argument with the findings of this study, is it likely that by teaching and focusing on a growth mindset, organizations and leaders can enhance positive attitudes toward change, and thereby reduce negative attitudes toward change?

Secondly, this study found a statistical significant relationship between high-quality LMX and attitudes toward change, as in line with previous research on the subject of LMX (van Dam et al., 2008; Epitropaki & Martin, 2005; Choi, 2011; Piderit, 2000; Tierney, 1999). By developing high-quality LMX with employees, individuals are likely to develop positive attitudes toward change and be open to change initiatives (Choi, 2011). In environments with high-quality LMX relationships, change may therefore have a smoother progress. We may argue that by developing high-quality LMX with employees, leaders and organizations will benefit when implementing organizational change, in terms of employees developing positive attitudes toward change. However, it can be challenging for leaders to develop high-quality LMX when the group or team reaches a significantly large size. Most leaders develop high-quality LMX relationships with only a small number of employees (Yukl, 2013; Grønhaug et al., 2003; Yukl & Van Fleet, 1990). One way leaders can establish good relationships with employees is for example by providing them with support, take use of their feedback and include them in decision making. In addition, organizations could facilitate and support the development of positive LMX

relationships between leaders and employees, by providing leaders with necessary training and knowledge.

Limitations and Suggestions for Future Research

A strength with this study was the establishment of high-quality LMX and mindset's influence on attitudes toward change. However, we did not establish a mediation influence of mindset on high-quality LMXs' influence on attitudes toward change. The EFA clearly indicated that the items measured what they were supposed to measure, which strengthened the item generalizability in this study. However, this study also has its limitations.

Firstly, since the data was collected at two different points in time, the degree to which valid causal inferences can be derived is limited (Podsakoff et al., 2003), and one cannot rule out the possibility of reverse causality (Shadish, Cook & Campbell 2001). This means that we do not know whether employee's perceptions of high-quality LMX form their attitudes toward change, or whether attitudes toward change form their perceptions of high-quality LMX. In order for causal inferences to be drawn, one needs to conduct longitudinal, experimental studies (Dysvik & Kuvaas, 2011; Elias, 2009). In addition, when conducting CFA, the different models generated very similar fit statistics. Therefore, longitudinal data, or data with a larger sample could be beneficial, in order to further clarify the distinction between the different factors.

Secondly, even though this study has controlled for several variables, one cannot rule out the possibility of alternative variables offering different explanations (Shadish et al., 2001). Such as organizational commitment, which has been claimed to be one of the most important antecedent of attitudes toward change (Choi, 2011; Benkhoff, 1997; Meyer, et al., 2002). It could also have been beneficial to control for information sharing, which has been established as an important factor contributing to the reduction of negative attitudes toward change (van Dam, et al., 2008). In addition, employee's previous experience has been found to be related to their reactions to similar situations (Buch, Kuvaas, Shore and Dysvik, 2014). Dunham et al. (1989) argued that previous positive experience

with change can make an individual more receptive to new change initiatives. In that manner, previous experience with change could have influenced individual's attitudes toward change, which could be a potential control variable in future studies.

Thirdly, when relying on self-report data, one must consider the possibility of common-method bias, which could reduce the validity in the study (Podsakoff & Organ, 1986). However, perceptual variables are hard to measure by other means than self-report data. For example, it is the individual itself that is best able to report their own attitudes toward change. The supervisor's perceptions of employee's attitudes are doubted to be as good a measure as the employee's own self-reports (Podsakoff et al., 2003). When testing for common-method bias, Harman's single-factor test was conducted (Podsakoff & Organ, 1986). The results did not show a concerning amount of variance in the variables (27%), and indicated that there was no threat of common-method bias in the data used in this analysis. In addition, the problem with common-method bias can be reduced by measuring independent and criterion variables separately (Podsakoff et al., 2003). This suggestion was followed by collecting the data with two questionnaires, distributed with a two weeks' period between each.

Lastly, even though the data had a sufficient sample size (N=852), there is the question of generalizability. The data was collected from businesses within the same industry in Norway, and investigations in other countries and other companies may provide different answers. However, the strength with such a design is that it rules out alternative explanations for the observed results, because of homogeneity in the organizational context (Kuvaas et al., 2012). It could be further explored whether the findings of this study can be generalized to other organizations and countries (Bryman & Bell, 2011).

Future research could also investigate additional factors that may mediate, or moderate the relationship between high-quality LMX and attitudes toward change. Since the ultimate goal is to achieve a successful implementation of a change initiative, any examination of variables that may influence the relationship would be of interest to both academics and practitioners. An interesting path for future research could be to clarify the difference between high-quality- (SLMX)

and low-quality LMX (ELMX), and their influence on attitudes toward change. Distinguishing between these two forms of relationships could provide a more thorough understanding of the influence ELMX and SLMX have on attitudes toward change. Including low-quality LMX, could be effective under certain conditions, for example when measuring performance, and in trivial working conditions (Kuvaas et al., 2012). It could also be beneficial to distinguish SLMX and ELMX in regards to short- and long-term exchange relationships, because SLMX is often more long-term, involving trust and investment, and ELMX is more contractual (Shore et al., 2006; Sparrowe & Liden,1997).

Another interesting path for future research might be to investigate more thoroughly whether leaders and their mindset might influence employee's mindset. Researchers (Heslin, Latham & VandeWalle; 2005; Heslin VandeWalle & Latham, 2006; Heslin & VandeWalle, 2008; Heslin & VandeWalle, 2011) have studied how leaders mindset could influence how they view their employee's performance. They argue that leaders holding a fixed mindset are not able to provide employees with an organizational context of development. By extending this research and looking at how leader's mindset could influence employee's mindset, one might get a clearer picture of how mindsets differ in particular contexts. In addition, one possible area for further research is how the organization's mindset might influence individual's attitudes toward change. It has been argued that the organization's mindset, or the collective mindset of a group, could influence individuals in terms of trust, commitment, effort and learning (Murphy & Dweck, 2010; Senn Delaney Leadership Consulting Group, 2014). Further research could therefore include organizational mindset, and how it could possibly influence individual's attitudes toward change.

Conclusion

Embracing constant and continuous change is a necessity for business success. For change initiatives to be successful, it is suggested that organizations must be in a continued state of change readiness (Rowden, 2001). The search for explanations of employees influence on change in organizations has been a

considerable studied subject (Noe & Wilk, 1993; Spiker & Lesser, 1995; Maurer, 1997). The development of leadership skills and organizational policies that facilitates positive attitudes toward organizational change, is argued to be an important factor to successful organizational change (Choi, 2011; Elias, 2009; Lines, 2005; Dunham et al., 1989). Our study contributes to the organizational change literature by establishing the influence high-quality LMX has on attitudes toward change, and the importance of individual's mindset in relation to attitudes toward change. Our results support the claim that LMX influence employee's attitudes toward change, especially that high-quality LMX gives employees more information and therefore makes them more supportive of the change process (Choi, 2011; van Dam et al., 2008; Lines, 2005). In addition, our results support the findings of Dweck and colleagues (Dweck, 2006; Blackwell et al., 2007; Hong et al., 1999; Rattan et al., 2015, Tabernero & Wood, 1999) that individuals with a growth mindset deal better with challenges and transitions. Leaders and organizations may therefore promote a growth mindset in their organization, enabling more positive attitudes toward change. In addition, developing high-quality LMX-relationship with employees and providing leaders with necessary training, can foster positive attitudes toward change.

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Appendices

Appendix A: Exploratory Factor Analysis

Item	Attitudes toward change	High-quality leader-member exchange	Mindset	Attitudes toward change
ATC15r	.819			
ATC2r	.691			
ATC7r	.647			
ATC3	.614			
ATC8r	.597			
ATC13	.578			
ATC5	.576			
ATC9	.560			
ATC11	.552			
ATC14	.549			
ATC10r				
SLMX7		.861		
SLMX5		.796		
SLMX6		.775		
SLMX1		.769		
SLMX8		.753		
SLMX4		.704		
SLMX3		.653		
SLMX2r		.608		
GM2			.798	
FM1r			.774	

GM4			.752	
GM3			.726	
FM2r			.676	
GM1			.672	
FM3r			.628	
FM4r			.586	
ATC17				.904
ATC18				.827
ATC16				.736
ATC4				.677
ATC6				.652
ATC12				.477
ATC1				.404
Eigenvalues	9.184	4.514	3.868	1.647
Percentage of variance	27.013	13.278	11.378	4.844

Note. N = 852, ATC = Attitudes toward change, SLMX= High-quality leader-member exchange, GM=Growth mindset,

FM=Fixed mindset

Appendix B: Preliminary Thesis Report

Ingvild Beldring ID number: **0929634**

Tine L'Orsa Eriksen ID number: **0947564**

Preliminary Master Thesis

GRA 19502

- The impact of mindset on organizational change efforts -

Hand-in date:

16.01.2017

Campus:

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Programme:

Master of Science in Business: Leadership and Change

Table of Contents

Summary

This paper focuses on organizational change theory, and employee's reactions to change efforts. Change is becoming an essential requirement for organizations in order to keep up with globalization and development. In order for change in an organization to happen, employees need to accept and be ready for the change. This topic will be discussed in the following paper, and will further be linked to the concept of mindsets, both individual and collective. We aim to examine whether employees' mindset and the collective mindset of the organization have an impact on employees' reactions to change efforts. We present theoretical foundations and the purpose of the study, before methodology and a progress plan

Introduction

The pace of global, economic and technological development makes change inevitable for organizations (Cummings & Worley, 2015). Whatever the reason, embracing constant and continuous change is now a necessity for business success; However, to do this, an organization must be in a continued state of change readiness (Rowden, 2001). Literature indicates that a high proportion of change initiatives are unsuccessful (Beer & Nohria, 2000). Previous literature also indicates that one reason why change fails in organizations, is due to employees' resistance to change (Spiker & Lesser, 1995; Maurer, 1997).

Due to the rapid changes in the market, such as technological changes, social economic changes and political changes, organizations might encounter resistance to change, short-sightedness and the emergence of unforeseen events. These factors can contribute to difficulties in reaching organizational goals. One reason why these obstacles appear could be a fundamental lack of readiness for strategic change in the company (Rowden, 2001).

It is reasonable to understand why people react to change, because a change effort often involves moving from the known to the unknown (Wittig, 2012). According to Beer and Nohria (2000), about 70% of all change initiatives fail. The reason why so many change initiatives fail can be traced directly back to employee resistance (Spiker & Lesser, 1995). According to Cummings and Worley (2015) resistance to change can come from three sources at an organizational level. The first is *Technical resistance*, which comes from the habit of following a common procedure as well as the sunk cost invested in the status quo. The second is *Political resistance*, and can occur when changes threaten powerful stakeholders (top executives or staff personnel) or questioning past decisions of leaders. The third source is *Cultural resistance,* which refers to systems and procedures that strengthens the status quo, promoting conformity to existing values, norms and assumptions about how things should operate

One of the antecedents of resistance to change has been argued to be self-efficacy (Jaramillo, Mulki, Onyemah, & Pesquera, 2012), which is defined as a person's belief in their ability to achieve a certain level of performance (Bandura, 1997

referred to in Jaramillo et al., 2012, p. 551). Perceived self-efficacy influence people's choice in different behavioural settings. Bandura (1977) argues that people fear and avoid situations they believe exceed their coping skills, whereas they on the other hand get involved in situations where they judge themselves capable of handling. Jaramillo et al. (2012) found in their study that self-efficacious people see change as an opportunity to develop their skills and abilities, and are therefore less likely to resist change.

A study by Tamir, Srivastava, John, & Gross (2007) use the implicit theories of intelligence (mindset) as a measure of emotions (either malleable or fixed), to establish the level of emotion regulation self-efficacy, that students had. They argue that implicit theories and self-efficacy can be associated, in the sense that implicit theories could be mediated by beliefs about emotion regulation self-efficacy. Here, emotion regulation entails attempts to reduce negative emotions and increase positive emotions (Tamir et al., 2007). Thus, we draw on this association in order to examine whether implicit theories of intelligence have an effect on organizational change efforts.

In view of this we draw a connection between the mentioned antecedent (self-efficacy) of resistance to change, and Carol Dweck's theory on mindsets and how they affect people's motivation to take on challenges. Dweck argues that people with the growth mindset, which is the belief that intelligence and abilities is malleable and can be developed, gains confidence by mastering challenging and new tasks. People with the growth mindset believe that they are capable of anything, as long as they are willing to learn and take advantage of available resources. On the other hand, people with the fixed mindset, which is the belief that intelligence and abilities are an unchangeable, fixed "entity", do not take on new tasks and challenges where their abilities are put to the test. Setbacks and effort undermine the confidence of people with the fixed mindset, and make them more resistant to development and change (Dweck, 2006).

Dweck (2006) explains how mindsets can refer to organizations as well as individuals. By showing how the company Enron had failed by only relying on talent and recruiting people because of their talents (endorsing a fixed mindset),

she points out the importance of an organization having a growth mindset. Further, Murphy & Dweck (2010) studied how organizations' theories of intelligence shape people's assumption about the characteristics that are most valued in an entity or incremental environment, and the effects of these. They suggest that incremental theorists (people with growth mindset) are more efficient when coping with challenges (change) and setbacks. In addition, they claim that environments theories of intelligence may affect the goals pursued by people in these environments (Murphy & Dweck, 2010).

Due to the high level of change failure we would like to know if employees mindset, and the organizations collective mindset, will have an effect on employees' reactions to change, which again can have an effect on the outcome of change efforts. Our research question is therefore:

How do mindsets of employees, and the collective mindset of the organization, affect employees' reaction to organizational change, and the outcome of change efforts?

Study contribution

The present study aims to contribute to the theoretical and empirical literature on organizational change, and reactions to organizational change regarding how organizational members mindset and the collective mindset of the organization affect the organizational member's reaction to change.

Dweck has found that in companies endorsing a growth mindset managers mentioned that their employees were more innovative, collaborative and more committed to learning and growing, than in companies endorsing a fixed mindset. There does not exist much research on the idea of groups having a collective mindsets, but the early findings show that organizations who takes advantage of a growth mindset and focus on employees' opportunity to grow, will experience considerable advantages in terms of organizational support and innovation (Harvard Business Review, 2014). We want to build further upon this research and see if organizations and employees that endorse a growth mindset is also more

acceptant to and have a higher success when implementing change. If we find that mindsets have a dependent factor on employees' reactions to change, we may be able to develop ideas for how organizations can use and endorse these mindsets in order to achieve successful organizational change. In addition, we may be able to suggest how organizations can alter their collective mindset in order to prepare members of the organization for a change.
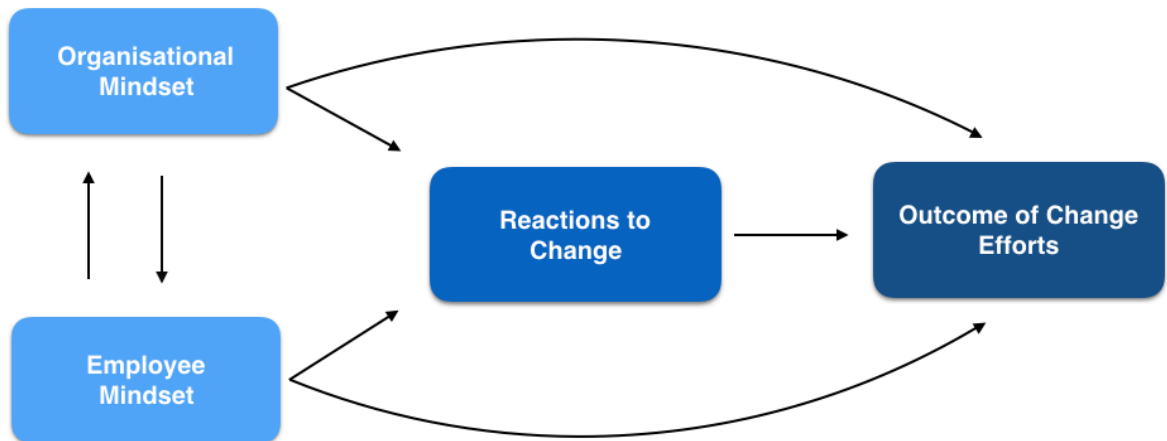
Research model

Figure 1. Conceptual model

Theoretical background

Organizational change

In the 21st Century it has become increasingly important to to lead change successfully. Change was once a transactional event, but now it is more an open-ended, radical, complex, personal, and continuous process (Anderson & Anderson, 2001). Organizational change is defined as a deliberate planned change in the organization, either in structure, systems or processes or in their product market, to improve either one or more of the organizational objectives (Lines,

2005). Organizational changes vary in depth. Transformational change is a large-scale change, which involves radical, frame-breaking, and fundamentally new ways of thinking, solving problems and doing business (Huczynski & Buchanan, 2013).

Reactions to organizational change

Because of increasingly dynamic environments, organizations are continually confronted with the need to implement change, either in strategy, structure, process or culture (Armenakis et. al 1993). There are different factors that contribute to the effectiveness of these organizational changes and their implementation. The diverse reactions towards change are highly individual, and employees might perceive change as either positive or negative (Stensaker, Meyer, Falkenberg & Haueng, 2002). Making a distinction between resistance and readiness to change can help direct the implementation of change efforts (Armenakis et. al 1990, referred to in Armenakis et al. 1993, p. 682).

Organizational readiness is defined as a psychological state that is shared by the members of the organization as well as their feeling of commitment to implement the change and their confidence in their ability to do so (Weiner, 2009). According to Armenakis et al. (1993), readiness is the cognitive precursor for either resistance or readiness to change. They also argue that framing a change effort in terms of readiness, relates more positive to the change efforts rather than framing a change effort in terms of resistance.

Hypothesis:1 Focusing on change readiness is positively related to the outcome of change efforts.

Smith (2005) emphasize why change readiness is important because it is people who are the real source of change as well as the drivers of change and they are the ones who will either embrace or resist the change. An experiment done by Coch and French (1948) emphasizes the value of allowing organizational members to participate in change efforts to reduce resistance to change. Madsen et al. (2005) studied the relationship between readiness for change and two possible factors:

organizational commitment and social relationships in the workplace. Their study found a relationship between organizational commitment and social relationships and readiness for change.

Hypothesis 2: _Employee Participation and involvement is positively related to reactions to change._

It is crucial that leaders prepare their employees for change (Armenakis et al. 1993; Madsen et al. 2005; Weiner 2009). For organizations to assist employees in being motivated and prepared for change, it is essential that managers, leaders, and organization development professionals understand how to create readiness for change (Cummings and Worley, 2015). There are several strategies that can help dealing with resistance and create readiness to change. Kotter and Schlesinger (1979) discuss education and communication, participation and involvement, facilitation and support, negotiation and agreement as some strategies to overcome resistance.

Cummings and Worley (2015) emphasizes three main strategies that helps creating readiness towards change. The first strategy is _Empathy and Support,_ which can help identify people who are having trouble accepting changes, reason why they are resistant as well as possible ways to overcome it. The second strategy is _Communication._ Effective communication about changes and the possible results can reduce speculations and fear that might build up and create resistance. The third strategy is _Participation and Involvement_, which involves directly involvement of organizational members in planning and implementation of change. Employees can provide diversity of information and ideas that can help the change efforts success.

Hypothesis 3: _Manager's empathy and support to employees is positively related to employee's reaction to change._

Hypothesis 4: _Communication is positively related to employee's reaction to change_

From previous literature we know that one reason why change initiatives fail is due to employee´s resistance towards change (Spiker & Lesser, 1995; Maurer, 1997). Shein (1996) argue that Lewin's concept of unfreezing must be present to some degree in creating readiness and achieving a successful change effort. Kurt Lewin is one of the most known researchers within the field of change management. He has developed a three-step model, which consists of three steps that needs to be present in order to achieve success. The first step is *unfreezing*, where old behaviour or reactions can be discarded and new behaviour or reactions can be adopted. The second step is *changing*, where the planned change happens. The third step *refreezing*, which seeks to stabilize the equilibrium (Burnes, 2004).

However, Lewin's three-step model has also attracted some criticism. Burnes (2004) argue that much of the criticism is unfounded and based on a narrow interpretation of his work. Burnes also argue that the three-step model was not to be looked at separately, but together with his other elements (Field Theory, Group Dynamics and Action Research). Lewin was not only thinking of organizational setting, but saw his elements as concepts that could help analyze and understand change at a group, organizational and social level (Burnes, 2004). Looking at Lewin's three-stage model of change in accordance with previous literature on different strategies to achieve readiness, Weiner (2009) argue that by unfreezing existing mindsets one could create motivation for change.

Mindset

Mindsets, or implicit theories, are the beliefs individuals have about human abilities and characteristics (Murphy & Dweck, 2016). Mindsets can shape people's motivation and performance (Murphy & Dweck, 2016).

A considerable amount of research on mindsets, focuses on how people's' mindset affect their performance in terms of goal achievement and motivation, and how they look at failures (Blackwell et al., 2007; Murphy & Dweck, 2016; Rattan, Savani, Chugh, & Dweck, 2015; Dweck & Leggett, 1988; Dweck, 1986). The authors claim that how you think about your qualities and intelligence motivates you in terms of reaching your desired goals. It matters what people's

mindset are, and whether they believe that their qualities can develop through nurture and effort. Changing people's mindset can solve conflicts and foster positive attitudes (Dweck, 2011).

Fixed mindset

People with a fixed mindset, or an entity theory, believe in a more fixed, uncontrollable ability. People with a fixed mindset believe that human traits, personality and morality are relatively fixed, and they are more concerned with measuring performance in reference to having good traits or not (Murphy & Dweck, 2016). By proving that you are smart or talented you show that you are successful. If you fail, e.g. you get a bad grade or, get fired from your job, entity theorists believe that you are not smart or talented (Dweck, 2006). People who endorse a fixed mindset is less likely to believe in development and change. They are more concerned with showing their success than learning new abilities, and are willing to cheat in order to prove it (Blackwell et al., 2007).

Growth mindset

People who endorse a growth mindset, or an incremental theory, believe that ability can be developed through experience and learning, and that people can change who they are and their behaviour. Further, the theory states that those who strive to improve their intelligence can actually do so (Murphy & Dweck, 2016). People with a growth mindset tend to take on challenging tasks that promote skill acquisition and using their efforts to overcome difficulty (Blackwell et al., 2007). Incremental theorists claim that if you fail, it means you are not fulfilling your potential, not reaching for the things you value (Dweck, 2006).

Teaching an *incremental theory* of personality – the belief that people have the potential to change – can reduce negative reactions to social adversity, shame and aggressive retaliation (Yeager, Spitzer, Johnson, Trzesniewski, Powers, & Dweck, 2014).

Because of the effect implicit theories have on individual's risk taking and task accomplishment, as well as on their performance and motivation (Dweck, 2006;

Dweck & Murphy 2016; Blackwell et al., 2007; Rattan et al., 2015; Dweck & Leggett, 1988; Dweck, 1986), we propose that individual's implicit theories will have a connection to how people react to change efforts in their organization. With regards to this we have developed the following hypothesis:

Hypothesis nr 5: *There is a positive relationship between individuals' mindset and their reactions to change.*

Hypothesis nr 6: *There is a positive relationship between individuals' mindset and the outcome of change efforts.*

Collective mindset

In addition to individual's mindsets, authors have argued that organizations and groups also have a fixed or a growth mindset (Murphy & Dweck, 2010; Senn Delaney Leadership Consulting Group, 2014). Collective mindset may be defined as the common belief people within a group have about whether human attributes are fixed and relatively stable or, malleable and expendable (Murphy & Dweck, 2010). These mindsets will influence the characteristics that people value in themselves and others. The mindset of the organization will show itself by the behaviour and motivation of its employees.

Collective mindsets can as with individual's mindset, be divided into fixed or growth mindsets. For example, some groups may foster a culture of genius and focus on natural talent, believing that people are either genius or they are not. Here, people have the belief that intelligence and talent are fixed. On the other hand, groups with a growth mindset and a culture of development, believe that intelligence and talent can be cultivated through effort, learning and training (Senn Delaney Leadership Consulting Group, 2014; Murphy & Dweck, 2010). Dweck explains how in groups with a growth mindset, people are more willing to openly express their opinions. On the other hand, in groups with a fixed mindset people are more concerned with showing how smart they are, and more concerned with getting approval from the other members (Dweck, 2006).

In their study on why fostering a growth mindset in groups and organizations are important, a consultancy company with the help of Carol Dweck

found that in the organizations that had a growth mindset, the employees had more trust in their company, in addition to a sense of ownership over their work, which also led to a higher commitment to the future of the company. On the other hand, employees who worked in organizations that had a fixed mindset expressed that they were more interested in leaving their company for another (Senn Delaney Leadership Consulting Group, 2014).

Anderson and Anderson (2001, p. 78) says that "mindset is the leverage point for transforming organizations." They define mindsets as one's worldview, the area from which you experience your reality and form perceptions about it. They claim that leaders need to ask critical questions of themselves, and transform their own mindsets, in order to implement new design and execute business strategy. Transformation is initiated by improvement of leader- and employee mindset (Anderson & Anderson, 2001).

Group-level implicit theories can also be described as organizational work climate, which is the shared perceptions that the organizational members have about different aspects of the organization, such as policies, practices and procedures. Hence, it is also argued to be a collective belief individuals have about the work environment in their organization. From an extensive literature review the researcher claim that organizational climate is made up of individual perceptions. Further, different leadership styles and leadership behaviour is argued to be one of the antecedents of organizational climate, leaders are said to be contributing to the common climate perceptions (Kuenzi & Schminke, 2009).

Heslin and VandeWalle (2005; 2006; 2008; 2011) have studied how managers' implicit theories can affect how they view their employee's performance, and if they are able to recognize changes in performance. They argue that if managers fail to acknowledge improvement in employee's performance, the employees may feel frustrated and it can also sometimes lead to tragic consequences. Further, they argue that to the extent that managers hold a growth or a fixed mindset is important for employee coaching. Their findings suggest that managers who have a fixed mindset are unlikely to provide

employees with an organizational context of development where they can grow their potential.

In view of theory on organizational climate and on managers' implicit assumptions about personnel, it can be argued that managers mindset will have an effect on organizational climate, and the collective mindset of the organization.

Researchers (Good, Rattan, & Dweck, 2012; Rattan et al., 2015) have argued that students are more likely to feel a sense of belongingness in academic environments that communicate a growth mindset. The students who felt this belongingness also got a higher GPA than students that did not receive this message (Good et al., 2012; Rattan et al., 2015). Murphy & Dweck (2010) demonstrated that one can predict how people will describe themselves depending on whether the environment they are in displays a fixed or a growth mindset. They suggest that future studies should employ a distinction between individual- and group-level implicit theories which can allow researchers to examine how these theories interact to affect cultural outcomes.

Based on the research that has been conducted on organizational mindset so far (Anderson & Anderson, 2001; Murphy & Dweck, 2010; Senn Delaney Leadership Consulting Group, 2014) we propose that the collective mindset of the organization will have an effect on the mindset of the individuals in the organization, as well as how they react to change efforts. We have therefore developed the following hypothesis:

Hypothesis nr 7: *There is a positive relationship between employees' mindset and the collective mindset of the organization.*

Hypothesis nr 8: *There is a positive relationship between the collective mindset of the organization and reactions to change.*

Hypothesis nr 9: *There is a positive relationship between the collective mindset of the organization and the outcome of change efforts.*

Methodology

Sample and procedure

Data collection is an important part of the research process. We wish to collect data material that will give us a better understanding of how reactions to change and mindsets influence change efforts. We will employ a method of cross-sectional design on multiple levels, both individual and organizational. This design is used in order to collect a certain amount of quantitative data in connection with a number of variables, in order to detect patterns of association. The variables will be classified and then categorized to calculate the extent of them. We are interested in studying more than one case (organization) at a specific point in time, and compare findings in order to test our hypothesis and analyse our research question (Bryman & Bell, 2015).

We intend to collect data from at least 150 employees, preferable from the IT industry, because we believe this industry experience a lot of rapid changes. In case we are not able to collect data from this industry we will look at other industries experiencing changes. Those that agree to participate in our study will receive the questionnaires by e-mail. We will ask employees and managers to evaluate their organization's mindset, and we also want to establish their own mindsets and how this will affect efforts of change in their organization.

Measures

For measuring mindset, or theory of intelligence, of employees and managers we will use a six-item scale (1 = strongly agree, 6 = strongly disagree) developed by Hong, Chiu, Dweck, Derrick & Wan (1999). The higher the participant's score, the less they believe that abilities and intelligence is a fixed entity.

We will also measure the collective mindset of the organization that we study. We will ask participants what type of culture they believe their organization has, a culture of development (growth) or a culture of genius (fixed) as in line with the empirical study conducted by Senn Delaney with assistance from Carol Dweck (2014). This study is, to our knowledge, the only one that has tried to find

empirical data on how an organization's mindset affect its employees and supervisors, and we will therefore use it as a guidance for our study.

There are several ways of measuring employee's reactions to change. Conner (2005, referred to in Abdel-Ghany, 2014 p.298) developed the organizational change readiness scale (OCRS), which is a tool that can be used to find the acceptance level of change efforts, which consists of 23 statements, each with two phrases that describe either readiness or resistance (opposite ends) and then five points are splitted between the two phrases (Abdel-Ghany, 2014). At this stage we are considering using ORCS as a measuring tool for employee's reactions to change.

Progression plan

Plan of progression	When
Submission of preliminary	January
Improvement of theory and hypothesis	February - March
Recruiting participants	February - March
Data collection	March – April
Data analysis	April – May
Method and results section	April – May
Discussion, implications and conclusion	May – June
Final adjustments	June – July – August
Submission of final thesis	September

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