Building Support for Change:

A Multilevel Investigation of Factors Influencing Commitment to Change

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Abstract

Employees’ support for change is a key for succeeding with change implementation. The purpose of the present paper was to explore potential factors influencing employees’ commitment to change. In addition to investigating the role of organisations’ HRM practices and individual disposition during change, we also aimed to broaden the current approach to the research on commitment to change by examining supervisors’ commitment to change and change turbulence. Data were collected from a large governmental organisation. As this study included data from both supervisors ($N = 30$) and employees ($N = 356$), multilevel modelling was chosen as the appropriate method for analysis. Results indicated that both change-related information and change-related participation were associated with employees’ commitment to change. Change turbulence displayed a significant relationship with employees’ change commitment. Further, and contrary to what was expected, supervisors’ affective commitment to change had a negative relationship with employees’ affective commitment to change. Our study implies that the broader change context should be taken into account when investigating factors that predict employees’ commitment to change. We suggest that our findings may be used as guidance for organisations that strive to form a sustainable change process where the employees’ change support is ensured.
Building Support for Change: Factors Influencing Employees’ Commitment to Change

For many organisations, both public and private, continuous organisational changes have become the norm rather than the exception. Increased competition, reorganisations, and national reforms constitute the background for a number of organisational changes (Øyum, Andersen, Buvik, Knutstad, & Skarholt, 2006). The ultimate goal for all organisational change is to improve; it may be the quality of the organisations’ product, the productivity, or the employees’ workday. But even though the reasons for changing may be well grounded and necessary, the changes can also lead to negative consequences for the employees’ work environment and health. The negative outcomes of organisational processes have been well studied (e.g., Amburgey, Kelly, & Barnett, 1993; J. Baron, N, Hannan, & Burton, 2001; Bauer & Bender, 2004). However, it is also essential to investigate the factors that contribute positively in a change process, in order to improve future organisational changes.

It is often the process of the change that is decisive for whether the result of the change will be successful or not (Nytrø, Saksvik, Mikkelsen, Bohle, & Quinlan, 2000; Saksvik, Nytrø, Dahl-Jørgensen, & Mikkelsen, 2002), and employees’ commitment to change has been shown to play a key role in successful change processes (e.g. Armenakis, 1999; Conner, 1993; Herscovitch & Meyer, 2002). That is probably why Conner (1993) described commitment to change as "the glue that provides the vital bond between people and change goals" (p.147). Commitment to change can be formed from factors at both the organisational and individual level. The supervisor, being the employees’ nearest leader, has a potentially major impact on the employees’ perception of the change. Beer, Eisenstat, and Spector (1990) argued that when the nearest leader is active in involving employees, developing a shared vision, and modelling change, the employees will be more committed to the change. Also human resource management (HRM) practices (Conway & Monks, 2008; Parish, Cadwallader, & Busch, 2008) and individual factors (e.g., Kalyal & Saha, 2008) have shown to influence employees’ commitment to change.

Another potentially important, but neglected factor, is the change context within the organisation, as the context has great influence on the employees’ change reactions (Herold, Fedor, & Caldwell, 2007). The vast majority of research on organisational change has focused on reactions to specific changes, such as a reorganisation or layoff. What seems to be lacking is research that investigates the larger organisational context in which the change is happening. Context-sensitive research has a greater possibility of examining which elements in the change context that could affect the employees’ change reactions. To our knowledge,
there are only a handful of articles that have focused on the broader change context. Herold, Fedor, and Caldwell (2007) are among the exceptions. They have investigated how change turbulence, a setting where there are several ongoing changes, affects the employees’ commitment to one specific change.

The amount of research on commitment to change has increased proportionally with the development of the concept. However, since this is a relatively newly introduced concept, there is still a need for research on factors related to commitment to change. Indeed, Herscovitch and Meyer (2002) have stated that the paucity of research on employee reactions to change is surprising. Their statement reflects a need for more empirical knowledge on the antecedents of reactions and attitudes towards change, including the antecedents of commitment to change.

**The Present Study**

The main objective of this study was to examine potential factors that influence employees’ commitment to change. Our first aim was to examine antecedents representing HRM factors (i.e., change-related information and change-related participation) and individual dispositions (i.e., coping with change and employability). These are all well studied factors within the organisational research field, but studies investigating their relation with commitment to change are less common. Our second aim was to go beyond the traditional scope, and investigate the role of change context and supervisor’s commitment to change in relation to employees’ commitment to change. The change context and the commitment to change of the employees’ immediate supervisor are two factors that are believed to influence employees’ reactions to change. Despite this, very few studies have investigated their potential influence on employees’ commitment to change. Both of these variables were therefore included in this study. In order to investigate the relationship between supervisors’ commitment to change and employees’ commitment to change, we have collected data from both supervisors and employees. Data were analysed using multilevel modelling.

This study is based on the premise that employees’ support for change initiatives is vital for the success of the change. The following sections provide an overview of commitment to change and its proposed correlates.
Commitment to Change

Acceptance and support from the employees is crucial for succeeding with an organisational change. The organisation’s understanding of how employees’ reactions and attitudes toward an organisational change are shaped is therefore important in a change process (Piderit, 2000). One of the concepts used to explain these types of reactions and attitudes is commitment to change.

Commitment to change is different from other commitment related concepts such as openness to change (Wanberg & Banas, 2000) and readiness to change (Armenakis, 1993), in that commitment to change does not only reflects positive attitudes towards the change, but also alignment with the change, intentions to support it, and a behavioural intention to work in favour of the change (Herold et al., 2007). Traditionally, the concept of commitment to change has been viewed as a unidimensional construct. Relatively recently, however, researchers have begun to examine commitment to change as a multidimensional construct. The most acknowledged multidimensional model is that of Herscovitch and Meyer (2002), who proposed a three-dimensional model of commitment to change based on Meyer and Allen’s (1991) general model of organisational commitment. Commitment to change is based on the assumption that the general commitment model could be applicable to different workplace commitment objects, such as a union, a supervisor, or a change. Meyer and Herscovitch (2001) argued that the essence of commitment is the same regardless of what the commitment target is. They suggested that commitment, in general, is “a force that binds an individual to a course of relevance to one or more targets” (p. 301). Commitment to change can therefore be defined as an individual’s attitudes and beliefs that decide the course of change-related behaviour. Both organisational commitment and commitment to change are expected to make employees more inclined to support their organisation’s change efforts. Nonetheless, commitment to change is found to be a better predictor of employees’ active support of change (Herscovitch & Meyer, 2002).

Following Herscovitch and Meyer (2002), commitment to change can take three different forms: (1) a desire to provide support for the change based on a belief in its inherent benefits (affective commitment to change), (2) a perceived obligation to support the change (normative commitment to change), and (3) a recognition of the perceived cost of failing to support the change (continuance commitment to change). According to this conceptualisation, employees can feel committed to the change because they want to, have to, and/or ought to (Herscovitch & Meyer, 2002). Herscovitch and Meyer (2002) argued that it is important to distinguish between the three components of commitment because they may
cause quite different consequences for ‘on-the-job-behaviour’. During a change process, an individual with strong affective commitment to a change initiative will be willing to go above and beyond the call of duty to find ways of making the initiative work. Employees that support the change initiative because they feel obligated to (normative commitment to change) may behave as the affective committed employees, but only if they see it as their duty. Those employees that support the change mainly because they feel they do not have any other choice (continuance commitment to change), might do just a little more than what is required to show support of the change. Their level of commitment to change will be based on the recognition that there are costs associated with not supporting the change (Herscovitch & Meyer, 2002; Meyer & Herscovitch, 2001).

Meyer and Herscovitch (2001) made a distinction between focal and discretionary commitment-behaviour. Focal behaviour implies that an individual is bound by his/her commitment (e.g, supporting the change), and is expressed through compliance with the change. Discretionary behaviour is related to extra-role behaviour, such as putting in an extra effort. In a change setting, discretionary behaviour materialises through employees who are cooperative and who go along with the spirit of the change. Herscovitch and Meyer’s (2002) study found that all three commitment to change components were positively related with compliance with the change. Only affective and normative commitment to change, however, were positively related to discretionary behaviour.

Further, Herscovitch and Meyer (2002) claimed that the three components may develop differently. This implies that the same antecedent or factor would influence the three components of commitment to change differently. For example, a factor that increases an employee’s affective commitment to change might decrease the employee’s continuance commitment to change.

In sum, the commitment to change literature indicates that distinguishing between the three different components is crucial (Chen & Wang, 2007), because they are believed to have different outcomes, and because the same factor can have a different effect on the three components. Because the three components are influenced differently by the same factor, and have different behavioural outcomes, it provides a comprehensive framework for studying the effect of antecedents on employees’ commitment to change.
The Influence of Supervisors’ Commitment to Change on Employees’ Commitment to Change

Central theories within organisational research state that leaders have a great influence on their group members’ beliefs, attitudes, and behaviour, by acting as role models. But despite the role modelling’s central part in these theories, there is insufficient empirical knowledge on how leader’s role modelling is related to the behaviour and attitudes of their employees (Yaffe & Kark, in press). Following up this consideration we will in this study examine how the supervisor’s commitment to change influences the employees’ commitment to change.

The leader as a role model has been stressed in several leadership theories (Hermalin, 1998; Luthans & Avolio, 2003; Manz & Sims, 1980) such as transformational leadership and charismatic leadership. These theories have argued that the role modelling is a way for effective leaders to encourage followers to do the same (e.g., Bass, 1985; Burns, 1978). The theories are partly based on Bandura’s (1977) social learning theory, whose main assumption is that most human behaviours are learned by observation. The social learning theory suggests that individuals imitate the behaviour of their role models in order to make sure their behaviour is in line with accepted norms.

Leadership theories view role modelling as a means by which the leaders transfer their belief systems to their groups (Dragoni, 2005). Leaders are expected to represent group identity and values through their personal behaviour. This behaviour functions as influential input for the group members’ sense-making about the values of the group. Moreover, leaders’ behaviour is often intentionally used to foster shared values that they want their subordinates to follow (Shamir, Zakay, Breinin, & Popper, 1998). However, although setting a personal example should facilitate the social learning processes, the employees beliefs in the leader as a worthy role model should add an even stronger effect on the group member’s behaviour (Yaffe & Kark, in press). A worthy leader may be defined as someone who is perceived to be worthy of identification and imitation (Kark, Shamir, & Chen, 2003). Yaffe and Kark’s (in press) study on organisational citizenship behaviour (OCB) suggested that when the group see the leader as a worthy role model, this facilitates the direct effect of leader OCB on the employee group’s OCB. Leader OCB had no direct effect on group OCB when the employees did not consider the leader as a highly worthy role model. Yaffe and Kark (in press) reasoned that employees’ perceptions of having a worthy leader are the precondition for social learning. Gibson (2004) had a similar remark, arguing that leaders may influence their group’s values
and believes, not only because they fill the role they are expected to, but also because they represent what the employees would like to be and to achieve.

Organisational changes often involve a certain amount of risk-taking and insecurity. The nearest supervisor, acting as a change agent, has the potential to provide the security that employees need for the development of positive attitudes and behaviours towards the change (Armenakis, 1999). Herzig and Jimmieson’s (2006) study on uncertainty management investigated whether the strategies supervisors utilised for coping with uncertainty during change was related to how the employees handled the change. They found that when supervisors handled the uncertainty well, the employees perceived the change more positively. Further, Tierney (1999) suggested that employees working with a supervisor who perceives the context as change-conducive also perceive the context as change-conducive. She found that when employees and supervisor share the same general values and perceptions, this is associated with employees perceiving that they work in a context characterised by risk-taking and departure from the status quo. These conditions are necessary for the emergence of organisational change (Porras & Susan, 1986).

Beer et al. (1990) acknowledged the importance of having change-committed leaders in change implementation. The argued that employees’ nearest leader help employees to develop a shared diagnosis of what is wrong in the organisation and to identify the need for improvement. When employees understand the need for and goal of the change they are more likely hold positive attitudes towards the change. This understanding could be essential when mobilising the commitment necessary for the implementation of an organisational change.

In sum, previous research suggests that employees’ interaction with the supervisor is a key filter for employees’ interpretations of the change context. The reviewed literature further indicates that this creates a setting in which positive attitudes and commitment to the change can develop. We therefore hypothesised the following:

Hypothesis 1: Supervisor’s commitment to change has a positive relationship with employees’ commitment to change.

Change Context

In the field of organisational theory, researchers have long argued that actions of the organisations need to be understood on the basis of the organisational environment and context (Herold et al., 2007). How the employees interpret the change context can have a potentially major effect on their reaction to change. However, studying the change context is
challenging, given the complex setting. Burke and Litwin (1991) stated that the amount of organisational factors changing at the same time create a process that is extremely difficult to predict. Gleick (1987) simply named the internal change environment in the organisation as ‘workplace chaos’.

Research on organisational changes has primary examined either a specific intervention (e.g., HRM interventions), or the role of individual variables on individual reactions to change. Very little research has investigated the larger organisational context within the organisation, and how this may affect change responses (Herold et al., 2007). Including change turbulence as a factor in organisational research may reveal the relationship between the change context and employees’ change reactions.

The Influence of Change Turbulence on Employees’ Commitment to Change

Herold, Fedor, and Caldwell (2007) stated that the investigation of change turbulence provides an “intra-organisational, change specific contextual variable that may help explain individuals’ attitudes toward a particular change” (p. 944). Change turbulence refers to an organisation’s internal environment, describing the many organisational changes going on at the same time as a focal change. The additional changes represent distractions and adaption demands, which constitute an important part of the context for individuals’ reactions to the focal change (Herold, Fedor & Caldwell, 2007).

According to Herold, Fedor, and Caldwell (2007), change turbulence is a change context variable that influences the individuals’ level of commitment to a specific change. This assumption is based on two considerations. The first is the recognition of multiple and overlapping changes as the norm rather than the exception in a reorganisation process. A given change often occurs in a context with several other demanding changes, which may frustrate and distract employees. Second, because the change process requires that the employees are able to adapt to the new situation, and employees presumably have finite resources available, multiple changes will increase the perceived demands. The additional demands come on top of the demands associated with the target change, and will create a cumulative effect. If employees are experiencing change turbulence, even a well-planned and necessary change may lack support from employees who are already under pressure due to other demanding changes.

Based on the above considerations, we assume that change turbulence will influence employees’ degree of change support and commitment to the change. Because Herscovitch and Meyer’s (2002) conceptualisation of commitment to change consists of three distinctive
components, it is probable that these components will have different relationships with change turbulence. We suggest that affective commitment (reflecting a desire to provide support for the change) and normative commitment (reflecting a perceived obligation to support the change) to a change will be violated by other ongoing and distracting changes. Continuance commitment to change stems from employees’ perceived pressure to support a change. They typically commit to the change because they feel they do not have any other options. Several changes will heighten the overall pressure to support the changes. It is probable that increased pressure in the change context will be reflected in an even higher level of perceived pressure to support a specific change. The level of continuance commitment to change might therefore increase when employees experience change turbulence. Thus, we hypothesised the following:

_Hypothesis 2:_ Change turbulence has a negative relationship with employees’ (a) affective commitment to change and (b) normative commitment to change, and a positive relationship to employees’ (c) continuance commitment to change.

**HRM Practises and its Influence on Employees’ Commitment to Change**

Several human resource management (HRM) practises have been shown to be important for the development of employees’ positive change reactions (Conway & Monks, 2008). HRM practises have traditionally been classified as either ‘hard’ or ‘soft’ (Druker, White, Hegewisch, & Mayne, 1996). The ‘hard’ HRM practises have focused on rules and procedures for increasing efficiency and reducing labour costs. In contrast, the ‘soft’ approach, also labelled ‘high commitment’ approach, aims at enhancing job performance by empowering and developing employees to achieve organisational goals on the basis of mutual interests. The premise of ‘soft’ HRM practises is the view of employees as a proactive part in the productive processes. Soft HRM practises will for instance ensure employees’ participation in decision-making and create communication programs designed to guide and inform the employees during the change process (Gould-Williams, 2004). Thus, participation and information sharing have been highlighted as important factors in change implementation and in the development of change commitment (Chawla & Kelloway, 2004; Kalyal & Saha, 2008; Miller, Johnson, & Grau, 1994; Saksvik et al., 2007).

Corresponding to the increased attention on commitment to change, several articles have investigated the relationship between commitment to change and different HRM practises (e.g., Conway & Monks, 2008). However, research has applied different
conceptualisations of commitment to change (Jaros, 2010), which makes it difficult to draw a comparison between the studies. In addition, the majority of those who have applied Herscovitch and Meyer’s (2002) three-dimensional model, have only included one or two of the commitment to change components. This makes it more difficult to get an overview of whether one HRM practise is related differently with the three commitment to change components. This is further complicated with the fact that the studies in part are completed under very different change contexts. We will therefore contribute to the clarification of which HRM practises that are related to the three different components of commitment to change. The HRM practises investigated in this study are change-related information and change-related participation.

**Change-related Information**

Information provided by the organisation helps employees to generate the bigger picture of their organisation’s action, and to understand their own role within the organisational system (Bowen & Lawler, 1995). This is especially important in cases of organisational change, as the change setting is likely to be perceived as more disconcerting than more stable settings. Research has suggested that employees develop positive attitudes towards the change when they feel they receive useful and timely information (Dam, Oreg, & Schyns, 2008; Kalyal & Saha, 2008; Miller et al., 1994). Making sense of the environment often involves cycles of attending to information, interpreting information, acting on it, and receiving feedback to clarify one’s understanding of the situation. This is especially true when events are ambiguous or subject to change (Weick, Sutcliffe, & Obstfeld, 2005). According to Cartwright (1951), a successful change implementation requires that all involved parties understand the basis for the change. This demands a good flow of information about the organisational situation to all employees. One of the challenges management faces during organisational change is the implementation of information routines that minimise the feelings of uncertainty and threat among their employees. In the sense-making process that employees go through, they need information in order to establish a sense of prediction (i.e., the time frame for organisational change) and understanding (i.e., the need for organisational change) of the situation (Sutton & Kahn, 1987). Information also serves as a means to communicate the role and function of the employees during the change, and the type of behaviour expected of the employees (Gould-Williams, 2004; Purcell & Hutchinson, 2007).
If the organisation has a culture where important and useful information is shared, employees tend to be more positive and are more likely to support a change initiative (Dam et al., 2008; Miller et al., 1994). Employees develop affective commitment to the change when they empathise and realise the benefits of the change (Herscovitch & Meyer, 2002). Accordingly, research has suggested that timely and honest information reduces the amount of rumours and highlights the benefits of the change, thus enhancing the level of affective commitment to the change (Conway & Monks, 2008; Kalyal & Saha, 2008). To our knowledge, no one has examined the relationship between normative commitment to change and change-related information. However, the commitment literature (e.g. Herscovitch & Meyer, 2002; Meyer & Allen, 1991; Meyer & Herscovitch, 2001) has suggested that normative commitment to change is believed to increase when the employees are informed about the necessity of changing and the need for employee’s support for changing. Since the role of change-related information is to communicate the necessity for changing (Sutton & Kahn, 1987) and the expected change-related behaviour (Purcell & Hutchinson, 2007), it is reasonable that employees receiving information about the change will feel more obliged to support the change, thereby increasing their level of normative commitment to the change. In cases where the flow of information is low, employees’ sense of prediction and understanding of the situation will not be present (Sutton & Kahn, 1987). Since information is believed to provide a sense of prediction, information will presumably decrease employees’ uncertainty and fear of consequences by not supporting the change. Thus, a great amount of received information will lead to a low level of continuance commitment to change. In accordance with the above argumentation, we hypothesised the following:

**Hypothesis 3:** Information has a positive relationship with employees’ (a) affective commitment to change and (b) normative commitment to change, and a negative relationship with employees’ (c) continuance commitment to change.

Further, there is also a probable link between information and change turbulence. Because even one single change increases the need for information, it is likely that perceived change turbulence calls for an even greater amount of information in order to reduce employees’ uncertainty and highlight the benefits of a focal change. We would therefore assume that change turbulence and change-related information have a negative relationship, whereby a high degree of perceived change turbulence would be related to a lower degree of perceived change-related information. As discussed, we also assume that information will be
positively related to affective and normative commitment to change, and negatively related to continuance commitment. We therefore hypothesised the following:

**Hypothesis 4:** Information mediates the negative relationship between change turbulence and employees’ (a) affective commitment to change and (b) normative commitment to change. Information mediates the positive relationship between change turbulence and employees’ (c) continuance commitment to change.

**Change-related Participation**

Including employees during change implementation is believed to foster positive attitudes towards change (Chawla & Kelloway, 2004; Sagie, 1994; Szabla, 2007; Wanberg & Banas, 2000). Participation can be defined as the intended effort by the management to provide opportunities for the employees at a lower level in the organisation to have a greater voice in one or more areas of organisational performance (Glew, O'Leary-Kelly, Griffin, & Fleet, 1995).

Participation is especially important in change processes. During a change decisions are being made regarding the organisation’s future, and many of those decisions are likely to affect employees’ future in the organisation. It has been argued that when employees are involved in the implementation of a change, they see the change as more beneficial (Bordia, Hobman, Jones, Gallois, & Callan, 2004). The employees get aware of what is actually happening in the organisation, which in turn reduces the feelings of uncertainty. This argument corresponds with the finding of Parson, Linden O’Connor and Nagao (1991), indicating that participation in change initiatives was helpful in developing knowledge of the change and providing a sense of control over the change process. They further suggested that the obtained knowledge and control in turn would develop a sense of ownership to the change process. A study of public sector organisations showed that participation in the change process led to a greater level of trust between the management and employees, which increased the employees’ organisational commitment and the acceptance of the change (Nyhan, 2000). Thus, if the organisation encourages the employees to participate in the change process, and is willing to consider their input seriously, the employees’ commitment to the change will increase (Chawla & Kelloway, 2004; Wanberg & Banas, 2000).

Affective commitment to change is based on the perception of benefits associated with the change (Herscovitch & Meyer, 2002). Since participation in change processes is believed to foster those perceptions (Bordia et al., 2004), we assume a positive relationship between
participation and affective commitment to change. Normative commitment to change is an obligation-based commitment. Meyer and Allen’s (1990) examination of the relationship between participation and organisational commitment indicated that organisational practises allowing for employee participation increased the employees perceived obligation to remain in the organisation. Previous research have argued that commitment to organisation and commitment to change are related constructs that to a certain extent can be compared (Herscovitch & Meyer, 2002). Thus, we argue for a positive relationship between change-related participation and normative commitment to change, where participation fosters the obligation to support the change. Affective and normative commitment to change are believed to have a positive relation to participation, as participation increases positive attitudes towards the change, and decrease negative attitudes (Kalyal & Saha, 2008). Continuance commitment to change is associated with the negative attitudes towards the change, as it is based on the uncertainty of what might happen if failing to support the change (Herscovitch & Meyer, 2002). Because research has suggested that participation is buffering the change related uncertainty among employees (Bordia et al., 2004), we assume that employees with participation opportunities will decrease their level of continuance commitment to the change. The subsequent hypothesis was:

**Hypothesis 5:** Change-related participation has a positive relationship with employees’ (a) affective commitment to change and (b) normative commitment to change, and a negative relationship with employees’ (c) continuance commitment to change.

**Individual Dispositions and its Influence on Employees’ Commitment to Change**

We have reviewed literature stating the relationship between HRM practises and employees’ reactions to change. However, employees’ change reactions are not only a matter of the available HRM practises, but also the individual dispositions. Guzzo and Noonan (1994) suggested that employees often interpret an HRM practise in different manners because the same HRM practise can have different consequences depending on the employees’ individual dispositions. Several researchers have examined how individual differences may influence psychological reactions to change (e.g., Judge, Higgins, Thoresen, & Barrick, 1999a; Oreg, 2006; Wanberg & Banas, 2000). However, even though the commitment to change literature has arguably reached a critical mass of researchers (Jaros, 2010), there are still relatively few studies which have examined the relation between individual dispositions and commitment to change. Coping with change and employability are
two of the individual dispositions that have been objects for initial commitment to change-research. Change-related coping is shown to be important during change because of its ability to buffer stress, thus providing good growth conditions for commitment to change (C. E. Cunningham et al., 2002). Employability is important during ambiguous settings such as change, because it enables employees to realise their career opportunities. Being confident in your competence is believed to make it easier to support the change and its consequences (Fugate, Kinicki, & Ashforth, 2004).

**Coping with Change**

How people handle organisational change depends on their coping strategies (G. Cunningham, 2006). Some people think of organisational changes as a good opportunity for career development, while others see the coming change as a threat to their well-being. For people perceiving the organisational change as a threat, the change is defined as a stressor. They will associate the change with negative outcomes such as job loss, reduced status, and conflicts at work (Ashford, 1988; Judge et al., 1999a).

The differences in how people react to a change might, at least in part, be due to the individual coping strategies. Lazarus and Folkman (1984) have defined coping as "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Research has suggested that coping is particularly important in the context of change, because organisational change often will be associated with uncertainty and stress (Ashford, 1988; Schweiger & DeNisi, 1991). Employees with the ability to cope are more ready to change and more likely to participate and contribute to the change process than those with low coping ability. Further, individuals with good coping strategies are more self-confident, which make them better prepared to handle organisational change (C. E. Cunningham et al., 2002).

Cunningham et al. (2002) are among the few researchers that have examined and found a relationship between coping and commitment to change. In addition, they found that coping with change also functioned as a mediator between affective commitment to change and organisational turnover intentions. Thus, possessing coping skills during change might reduce the potential stress associated with a change, thereby increasing the affective commitment and the belief in the value of the change.

Research has proposed that employees with a high level of continuance commitment to change feel pressured to advocate the change, and perceive high risk associated with not supporting the change (Herscovitch & Meyer, 2002). Such pressure may be a source of stress.
in itself, in which case continuance commitment to change would intensify the potentially negative effect of the change (G. Cunningham, 2006). Cunningham (2006) therefore expects a negative relationship between coping and continuance commitment to change.

According to previous research, there is no expected correlation between coping with change and normative commitment to change. Herscovitch and Meyer (2002) suggested that employees who are normatively committed to the change only support the change because they see it as their duty. These employees will perceive it as irresponsible not to support the change, independent of their level of coping (G. Cunningham, 2006). On the basis of the arguments given above, we hypothesised the following:

Hypothesis 6: Coping with change has a positive relationship with employees’ (a) affective commitment to change, and a negative relationship with employees’ (b) continuance commitment to change.

Judge et al. (1999b) and Cunningham et al. (2002) have found that coping functions as a mediator between individual dispositions and outcomes such as turnover intentions, job satisfaction, and organisational commitment. Because organisational commitment and commitment to change are related constructs (Herscovitch & Meyer, 2002), we suggest that coping may work as a mediator between individual dispositions and commitment to change as well. We have argued that change turbulence creates a context that employees may perceive as strenuous, and that change turbulence therefore is related to commitment to change. Further, coping is defined as an effort to manage external and internal demands. Because each individual possesses a finite amount of resources for handling change (Herold et al., 2007), we assume that a turbulent change context will make it more difficult to cope with each and every change. Thus, a high level of experienced change turbulence leads to a lower level of perceived coping. The relationships outlined above lead to the expectation that coping will mediate the relationship between change turbulence and commitment to change. Thus, we hypothesised the following:

Hypothesis 7: Coping mediates the negative relationship between change turbulence and employees’ (a) affective commitment to change, and the positive relationship between change turbulence and employees’ (b) continuance commitment to change.
Employability

Personal adaptability is an important personal resource for handling a changing environment (Fugate & Kinicki, 2008). Employability is a form of work specific active adaptability that enables workers to identify and realise career opportunities (Fugate et al., 2004). During organisational change, employees’ uncertainty about their own capability of handling new demands or keeping their jobs, are likely to increase. Research have indicated that a high level of employability combats this insecurity, and even promotes the employees’ support of change (Kalyal, Berntson, Baraldi, Näswall, & Sverke, 2010).

Employability research has suggested that employees scoring high on employability are more adaptable to changing work conditions. They are also, compared to people with lower levels of employability, more able to identify different job alternatives within and outside the organisation (Fugate et al., 2004; Kluytmans & Ott, 1999). It has been suggested that employees with a high level of employability are more supportive to the change initiative because they are able to see the associated benefits and are confident about their own importance for the organisation (Berntson, Sverke, & Marklund, 2006). This finding is in accordance with that of Kalyal et al. (2010) and Fugate et al. (2004), indicating that employees who are convinced about their own abilities to handle the changing environment, are also expected to have a more proactive disposition and more positive reactions towards the change.

The relationship between employability and positive reactions to change would imply that there is a link between employability and commitment to change. Accordingly, both Fugate and Kinicki (2008) and Kalyal et al. (2010) have found that employability is positively related to affective commitment to change. Most research on the relationship between employability and commitment to change has focused on affective commitment to change, leaving the possible relations between employability and the normative and continuance commitment to change rather blurred. Kalyal et al. (2010) are an exception, having investigated all three components of commitment to change in relation to employability. Firstly, they found that employability is positively related to normative commitment to change. This finding supports the idea that maintaining organisational membership and retention of the job would serve as a factor that is strengthening the reciprocity norm between the employer and employee (Herscovitch & Meyer, 2002). Since being employable within an organisation will enforce the reciprocity norm between employer and employee, this would contribute to the development of normative commitment to change (Kalyal et al., 2010). Secondly, Kalyal et al. (2010) found that employability was negatively related to continuance...
commitment to change. This finding can be explained with Herscovitch and Meyer’s (2002) conceptualisation of commitment to change, stating that continuance commitment to change is based on the perceived costs and consequences associated with not supporting the change (e.g., losing their job, being relocated). Employees with low levels of employability do not have the adaptability that enables them to identify career opportunities (Fugate et al., 2004). Because of the fear of the consequences, they will feel more pressure to support the change initiative. When experiencing high levels of employability, however, the risk and pressure associated with not supporting the change will not be perceived as so threatening, and their level of continuance commitment to change will be reduced. As a further contribution to the examination of the relationship between employability and all three components of commitment to change, we hypothesised the following:

*Hypothesis 8:* Employability has a positive relationship with employees’ (a) affective commitment to change and (b) normative commitment to change, and a negative relationship with employees’ (c) continuance commitment to change.

In summary, the literature indicates that Herscovitch and Meyer’s (2002) three components of commitment to change represent three distinct attitudes towards a change. Thus, in order to present a coherent picture of factors that influence employees’ support of a change, all three components are examined in this study. Further, an overview of the commitment literature suggests that the factors that are proposed to affect the commitment to a change stem from different research domains. This study therefore includes factors related to the leadership, change context, HRM practises and individual dispositions.

**Method**

**Context**

Data were collected from employees and supervisors in The Norwegian Labour and Welfare Administration (NAV). This national public organisation administers one third of the national budget and their primary tasks involve administering benefits such as unemployment benefits, retirement pension, and family allowance. They also serve as the national employment agency. NAV consists of central units, regional offices, and local offices. The 19 regional offices are responsible for the 457 local NAV offices. At least one local office is established in each municipality. The number of employees at the local offices depends on the
size of the municipality, where the smallest offices consist of at least 4 people. It is the local offices that are responsible for the direct contact with the users of the services NAV offers. The local offices are grounded on a balanced partnership between the government and the municipality, which means that each office should include a staff derived from both sides of the partnership. The organisation of NAV constitutes a staff of around 20 000 people.

NAV was established as a result of the Norwegian Labour and Welfare Act of 2006. This act led to a reorganisation of the former welfare system, and merged the National Insurance Service, the Norwegian Employment Service, and certain parts of the municipal social services. The main objective for this reorganisation was to encourage more people into employment and to create a more efficient and user-friendly welfare system. This reorganisation is called the single most comprehensive welfare reform of modern times in Norway. Since the beginning of the reorganisation in 2006, NAV has been through substantial changes and was still dealing with a number of changes when this study was conducted.

Sample and Procedures

Questionnaires were administered to supervisors (front line managers) and employees within 30 local offices. The study had to be accepted by the central office, the regional offices and the supervisor of the local offices before administering the questionnaire. Offices were contacted by telephone and email.

The researchers recruited the vast majority of the local offices, while a small number were recruited by the regional offices. The offices recruited by the researchers were randomly picked from a list of all NAV offices all over the country. The final sample of offices had a relatively good geographical distribution, where data were collected from offices in 7 of the 19 national regions.

Two versions of the questionnaire were made, one version for the employees and a shorter version for the supervisors. In total, 653 questionnaires were distributed to employees and 356 were completed, with an overall response rate of 54.5 %. All supervisors completed the questionnaire. The age distribution for the employees was reported as follows: Younger than 25 years (2 %), 26-35 years (18.3 %), 36-45 years (29.8 %), 46-55 years (30.9 %), 56-65 years (16.9 %) and older than 65 years (2.2 %). A total of 77.8 % of the employees were female. The age distribution for the supervisors was as follows: 36-45 years (41.4 %), 46-55 years (44.8 %), and 56-65 years (13.8 %). A total of 51.7 % of the supervisors were female. The number of individuals surveyed in each office ranged from 2 to 41 with the average being 21.7 per office. The number of employees in each local office varied from four and up to over
hundred people. For that reason, the number of completed questionnaires varied from office to office.

The questionnaire was distributed by email. The email contained information about the nature of the study, explanations of participation guidelines (i.e., voluntary and anonymous) and a unique link to the survey. The questionnaire was available in a window of two weeks, and the respondents got up to two reminders. In order to link the supervisors to their respective groups of employees, each office typed in a unique code at the beginning of the questionnaire.

**Measures**

All measures used in this study have been applied in previous research. Since this study was conducted in Norway, all items were translated from English into Norwegian. Back-translation was utilised to make sure that the wordings of the original items and the Norwegian translation were consistent in meaning. First, all English items were translated to Norwegian by the researchers, and then a native English speaking person translated the items back to English. Items with discrepancies between the two translations were modified and a second back-translation was conducted, in accordance with the conventional method of Brislin, Lonner and Thorndike (1973). To suit the purpose of this paper, all example items are presented in English. All items were measured using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The internal consistency on the scales used in this study ranged from .65 to .91. According to DeVellis (2003), all Cronbach’s alphas were within acceptable levels. The employees received a questionnaire with all scales described below, while the supervisors received the commitment to change scale only.

**Commitment to change** was measured using the 18-item scale developed by Herscovitch and Meyer (2002). This measure consisted of three subscales: affective commitment to change, normative commitment to change and continuance commitment to change. Sample items include: “This change is a good strategy for this organization” (affective commitment to change), “I feel a sense of duty to work toward this change” (normative commitment to change), and “It would be risky to speak out against this change” (continuance commitment to change). The internal consistency for these scales were .91 (affective), .65 (normative), and .86 (continuance).

**Change turbulence** was assessed using the 4-item scale by Herold et al. (2007). The overall change turbulence in the change context was measured by asking the employees to rate how a focal change was influenced by the implementation of other ongoing changes.
Example statements include, “This change would have been easier if we were not dealing with a number of other changes”. The internal consistency of this scale was .80.

*Change-related participation* was assessed using three items by Wanberg and Banas (2000). The scale includes items like, “I have been able to participate in the implementation of the changes that have been proposed”. The internal consistency was .79.

*Change-related information* was measured using Wanberg and Banas’s (2000) 4-item scale. Sample items include, “The information I have received about the changes has been useful”. The internal consistency was .86.

*Coping with change* was measured using eight of the 12 items by Judge et al. (1999b). Four items were excluded because they were not seen as relevant for the purpose of this study. The scale includes items like: “When changes happen in this company, I react by trying to manage the change rather than complain about it”. The internal consistency was .73

*Employability* was assessed using five items by Berntson & Marklund (2007). An example item from this scale includes, ”My competence is sought-after in the labour market”. The internal consistency was .89.

Three *control variables* were included in this study: Gender (male = 0, woman = 1), age (younger than 25 years old, 26-35 years old, 36-45 years old, 46-55 years old, 56-65 years old, older than 66 years old), and employer (whether they are employed by the government (= 0) or the municipality (= 1)). Employer as a control variable was included to investigate whether employees employed by the government responded differently than those employed by the municipality. The municipality and the government offer slightly different work conditions (e.g., employees employed by the government have paid lunch breaks as opposed to employers employed by the municipality), even though all employees have the same work tasks and work in the same offices.

**Analysis**

The analysis was conducted with SPSS 18. Means, standard deviations, frequencies, and reliability were calculated for all key variables. There were no missing values as all items were mandatory.

Multilevel analysis was chosen as the appropriate method, as we wanted to test relationships at different levels and since data were clustered into 30 different units. Multilevel analysis provides for a robust examination of cross-level models (Hox, 2010), allowing for the investigation of both within- and between-unit effects on an individual level dependent variable. Multilevel modelling can be conceptualised as a series of equations at the
different levels of data. In the present study the data had two levels: employees (level 1) that are clustered into different offices (level 2). Ignoring that employees are clustered into groups by conducting, for example, multiple regression on the complete data set, increases the likelihood of making a Type I error. A type I error reflects the mistake of rejecting the null hypothesis when it is, in fact, true in the population. Multilevel modelling is able to take clustered data into consideration, thus solving this problem. The assumption of normally distributed data should be met when doing multilevel analysis. No problems with normal distribution were found in this study.

Most psychological constructs are arbitrary in the way that it is unknown where a given score locates an individual on an underlying psychological dimension. This phenomenon makes the interpretation of the results uncertain due to the lack of a meaningful zero point (Blanton & Jaccard, 2006). By centring all predictors, this problem can be avoided. Centring predictor variables also reduces problems with multicollinearity (Smith & Sasaki, 1979). All predictors in this study were therefore centred. In accordance with Enders and Tofghi’s (2007) recommendations, predictors were centred around the grand mean which implies using the total sample mean to centre the scores.

The present study tested antecedents related to Herscovitch and Meyer’s (2002) three dimensional construct of commitment to change. Because we had three dependent variables, three separate analyses were conducted. The analysis for each outcome variable begins with fitting an empty model (intercept-only model) to estimate the total variance between and within the groups. The intercept-only model has to be calculated first in order to determine the total unexplained variance by the model after taking the clustering of the sample into consideration. This model is essentially a one-way ANOVA. The value of intraclass correlation (ICC) is calculated to estimate the proportion of the between group variance compared to the total variance for the dependent variable. After fitting the empty model, predictors were entered in the order of the hypotheses.

This study hypothesised two mediation effects with information and coping as mediating variables. To our knowledge, multiple mediation has not yet been established as a procedure in multilevel modelling. The mediators were therefore tested in separate models. To test whether there actually is an indirect effect, Baron and Kenny (1986) recommend using the Sobel test (Preacher & Leonardelli, 2001). This test provides a more direct test of an indirect effect. When testing for mediation, the relationships in path a and path b (Figure 1) need to be significant (R. M. Baron & Kenny, 1986) and the coefficients and standard errors for both paths have to be calculated.
Figure 1. An example of a mediation design tested in this study. Change turbulence affects employee affective commitment to change indirectly through information.

Results

Tables 1 and 2 present the descriptive statistics and correlations of the outcome variables and predictors at group level and at employee level. To avoid disaggregation of supervisor data and aggregation of employee data the descriptive statistics and correlations for supervisors and employees are displayed in two separate tables. Tables 3-7 present the results from the multilevel modelling.

Table 1.

Means, Standard Deviations, Correlations and Reliabilities at Supervisor Level.

<table>
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<tr>
<th>No.</th>
<th>Variables</th>
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<th>3</th>
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<td>(.73)</td>
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<td>3</td>
<td>Supervisor CC2C</td>
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<td>1.11</td>
<td></td>
<td>-.54**</td>
<td>.49**</td>
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</table>

*Note. N = 30 for all variables. Scale reliabilities (Cronbach’s alpha) are reported on the diagonal in parentheses. Supervisor AC2C = Supervisors’ affective commitment to change, Supervisors’ NC2C = Supervisors’ normative commitment to change, Supervisors’ CC2C = Supervisors’ continuance commitment to change. **p < .01.*
Affective Commitment to Change as a Dependent Variable

An empty model was first computed to calculate the unexplained variance between employees and between offices. The intercept-only model demonstrated small, but significant differences between groups (see Model 1 in Table 3). The ICC indicated that a proportion of 6% of the unexplained variance could be found at group level. In the second model, only the control variables were entered (see Model 2 in Table 3), and these were not found to explain any of the variation between or within groups.

In Model 3, supervisors’ affective commitment to change (supervisor AC2C) was entered as a level 2 predictor. This model explained 43.2% of the variance at group level (see Model 3 in Table 3). The relationship between supervisor AC2C and employees’ affective commitment to change (Hypothesis 1a) was significant, but in the opposite direction than hypothesised (coefficient = -.16, p < .05). According to these results employees’ affective commitment to change decreases when their supervisors’ AC2C increases. Thus, Hypothesis 1a was not supported.

Model 4 included level 1 and level 2 predictors (see Table 3). This model explained 50% of the variation at group level. In accordance with Hypothesis 2a, change turbulence was found to have a negative relationship with employees’ affective commitment to change. This result indicates that employees experiencing highly turbulent environments decrease their level of affective commitment to change (coefficient = -.15, p < .05). Hypothesis 2a was supported. As expected in Hypothesis 5a, participation was positively related to employees’ affective commitment to change (coefficient = .22, p < .001). According to these results, employees with the opportunity to influence the change process are more likely to support the change, because they believe the change is beneficial for the organisation. Hypothesis 5a was supported. Hypothesis 8a assumed that employability would be positively related to employees’ affective commitment to change. This relationship was not found, and Hypothesis 8a was thus rejected. When adding all level 1 predictors, gender appeared to be significant in Model 4. According to the correlation table (see Table 1), gender had a small, but still significant relationship to participation (p < .05). This relationship indicates that men (1) tend to participate more in the change process than women (0).

In Model 5 information was entered as a mediator (see Model 5 in Table 3). This model explained 75% of the variance at group level. In accordance with Hypothesis 3a, information was found to have a positive relationship to employees’ affective commitment to change (coefficient = .20, p < .001). Employees who have sufficient information available are likely to see the benefits of the change and support the change initiative.
Table 2.
Means, Standard Deviations, Correlations and Reliabilities at Employee Level.

<table>
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<td>.12*</td>
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<td>.22***</td>
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*Note. N = 356 for all variables. Scale reliabilities (Cronbach’s alpha) are reported on the diagonal in parentheses. AC2C = employees’ affective commitment to change, NC2C = employees’ normative commitment to change, CC2C = employees’ continuance commitment to change. * p < .05. ** p < .01. *** p < .001.*
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<td>.67 (.05)***</td>
<td>.67 (.05)***</td>
<td>.67 (.05)***</td>
<td>.59 (.05)***</td>
<td>.57 (.05)***</td>
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<td>.03 (.03)†</td>
<td>.02 (.02)</td>
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</table>

*Note: † p < .10, * p < .05, ** p < .01, *** p < .001. Supervisor AC2C = Supervisors’ affective commitment to change. AIC = Akaike’s Information Criterion, a general fit-index.
Hypothesis 3a was supported. As expected in Hypothesis 4a, the estimate of change turbulence decreased when adding information to the model (see Models 5 and 4 in Table 3). This reduction in change turbulence is an indication of an indirect effect between change turbulence and affective commitment to change. The calculations for path a (see Figure 1) are displayed in Table 4, and demonstrate a significant relationship between change turbulence and information (coefficient = -.31, p < .001). In order to make the calculations for path a consistent with the calculation of path b, the level 2 variance was included in Table 4. However, the level 2 variance was not significant, and indicated only small differences between groups. The Sobel test found a significant mediation effect between change turbulence and affective commitment to change with information as the mediator (p < .05). The effect of change turbulence on affective commitment to change was notably reduced when information was controlled for, but the effect was still significant. This indicates a partial mediation (R. M. Baron & Kenny, 1986). The result suggests that employees experiencing a highly turbulent environment need more information in order to maintain affectively committed to the change initiative. Hypothesis 4a was thus supported.

Table 4

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
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<td>Est. (SE)</td>
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<td>-.11 (.11)</td>
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<td>Change turbulence</td>
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<td></td>
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Note: *** p < .001. AIC = Akaike’s Information Criterion, a general fit-index.
In the final model, coping was added as a mediator while information was excluded from the model (see Model 6 in Table 3). As noted, the mediators were tested separately because multiple mediation is not yet established in multilevel modelling. Model 6 explained 93.1 % of the between-group variance. Consistent with hypothesis 6a, coping was found to correlate positively with employees’ affective commitment to change (coefficient = .67, \( p < .001 \)). This result implies that employees who have good coping skills during change have higher levels of affective commitment to the change than employees with low levels of coping. Hypothesis 6a was supported. When coping was added to the model, the significant effect of change turbulence disappeared. As suggested in Hypothesis 7a, this result indicated a mediation effect between change turbulence and employees’ affective commitment to change. To test this mediation effect the relationship between change turbulence and coping was also calculated (see Model 3 in Table 5), demonstrating a significant relationship (coefficient = .20 \( p < .001 \)). The level 2 variance was included in the calculation of path a to make it consistent with the path b calculation. The group variance was non-significant, indicating no group differences. According to the results of the Sobel test, coping was found to mediate the

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Results of Multilevel Analysis with Coping as a Dependent Variable.</th>
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<tbody>
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<td>Predictors level 1</td>
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</tr>
<tr>
<td>Change turbulence</td>
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</tr>
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<td>Random effects</td>
<td></td>
</tr>
<tr>
<td>( \sigma^2 ) level 1</td>
<td>.29 (.02)**</td>
</tr>
<tr>
<td>( \sigma^2 ) level 2</td>
<td>.01 (.01)</td>
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<td>AIC</td>
<td>531</td>
</tr>
</tbody>
</table>

*Note: * \( p < .05 \). *** \( p < .001 \). AIC = Akaike’s Information Criterion, a general fit-index.
relationship between change turbulence and affective commitment to change \((p < .001)\). Change turbulence did not have any effect on affective commitment to change when information was controlled for. This indicates a complete mediation effect (R. M. Baron & Kenny, 1986). The result demonstrates that employees in a turbulent change context need higher levels of coping in order to maintain affective commitment to the change, than employees experiencing less turbulent environments. Hypothesis 7a was supported.

Model 6 (Table 3) was chosen as the final model because it explained most variation and had the lowest AIC (Akaike’s Information Criterion). The AIC measures how well the data fits to a statistical model. Models with a low AIC indicate a good fit to the data (Hox, 2010). The total variance explained by Model 6 was 29.4%.

**Normative Commitment to Change as a Dependent Variable**

The empty model showed small and non-significant differences between groups when the employee and the supervisor levels were considered. The ICC was .008, indicating that only 0.8% of the variation was at group level. Since no differences between groups were found, the group level variance and predictors at group level were not considered in further models (see Table 6). However, data were analysed with multilevel regression in order to maintain the opportunity to compare the results of all three models. The model corresponds to multiple regression, as data were only considered at level 1.

In Model 2 (Table 6), control variables were included. Results indicated that the level of normative commitment to change significantly varies according to the respective employer (coefficient = -.20, \(p < .01\)). As employer was coded 0 (= municipality) and 1 (= government), employees employed by the municipality had a higher level of normative commitment to change than employees employed by the government.

Model 3 including the level 1 predictors explained 5% of the variance between employees in normative commitment to change (see Table 4). The expected relationship between change turbulence and normative commitment to change was significant (coefficient = .14, \(p < .01\)), but in the opposite direction than hypothesised (Hypothesis 2b). This result indicates that employees in a turbulent change environment are likely to increase their level of normative commitment to the change. Hypothesis 2b was thus not supported. In accordance with Hypothesis 5b, participation was found to have a positive relationship with employees’ normative commitment to change (coefficient = .09, \(p < .01\)). This finding indicates that employees with the opportunity to participate in the change process feel more
obligated to support the change initiative. Hypothesis 5b was supported. Hypothesis 8b assumed a positive relationship between employability and employees’ normative commitment to change. This assumption was not found, and Hypothesis 8b was thus not supported. When entering predictors, the significant differences in employer disappeared. According to the correlation table (Table 1), the type of employer correlated highly with both participation ($p < .01$) and information ($p < .001$). These results indicate that employees employed by the government have the perception that they get more information and have more opportunities to participate in the change process than employees employed by the municipality.

When information was entered in Model 4 (Table 6), 9% of the variance between employees was explained. Information was hypothesised to mediate the relationship between change turbulence and employees’ normative commitment to change, but the direct effect was positive and not negative as expected (see Model 3 in Table 6). Since the increased estimate of change turbulence does not imply any mediation effect, the hypothesised mediation effect

<table>
<thead>
<tr>
<th>Table 6</th>
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<tbody>
<tr>
<td>Results of Multilevel Analysis Predicting Normative Commitment to Change.</td>
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</table>

<table>
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<th>Model 3</th>
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<td>Gender</td>
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<tr>
<td>Predictors level 1</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change turbulence</td>
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<td>.17 (.05)**</td>
<td>.17 (.05)**</td>
<td>.17 (.05)**</td>
</tr>
<tr>
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<td>.04 (.04)</td>
<td>.04 (.04)</td>
<td>.04 (.04)</td>
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<td>-.02 (.05)</td>
<td>-.02 (.05)</td>
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<tr>
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<td>.42 (.03)**</td>
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<td>645</td>
<td>636</td>
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</tbody>
</table>

*Note: ** $p < .01$. *** $p < .001$. AIC = Akaike’s Information Criterion, a general fit-index.*
was not tested (MacKinnon, Krull, & Lockwood, 2000). The hypothesised positive relationship between information and normative commitment to change was significant (Hypothesis 3b; coefficient = .16, \( p < .001 \)), indicating that when employees perceive to have access to timely and useful information, their obligation to support the change initiative increases. Hence, Hypothesis 3b was supported. When information was entered in the model, the relationship between change turbulence and normative commitment to change showed an even stronger positive relationship. Instead of the expected mediation effect, this finding indicates a small suppressor effect, meaning that a third variable is increasing the magnitude of a relationship between two variables (MacKinnon et al., 2000). In our study, information influenced the relationship between change turbulence and normative commitment to change. The AIC decreased from Model 1 to 4, demonstrating that Model 4 fits best to the data. Thus, Model 4 was chosen as the final model.

**Continuance Commitment to Change as a Dependent Variable**

As in the case with employees’ normative commitment to change, no significant differences were found between the groups in employees’ continuance commitment to change. The ICC was .02 demonstrating a group level variance at 2%. Due to non-significant group differences, the group level variance and group level predictors were not considered in further models. This model was, for the same reason as with the normative commitment to change model, analysed with multilevel regression.

Model 3, containing predictors, accounted for 16.5% of the within-group variance in employees’ continuance commitment to change (see Model 3 in Table 7). In accordance with Hypothesis 2c, change turbulence was found to have a positive relationship with employees’ continuance commitment to change (coefficient = .18, \( p < .01 \)). This result implies that employees experiencing a turbulent change environment are likely to be more continuance committed than employees experiencing a less turbulent environment. Hypothesis 2c was supported. As hypothesised, a significant negative relationship was found between participation and employees’ continuance commitment to change (Hypothesis 3c; coefficient = -.27, \( p < .001 \)). This finding indicates that when employees are excluded from involvement in the change process, they perceive a higher pressure to support the change initiative, which in turn leads to a higher level of continuance commitment to change. Hypothesis 3c was thus supported. In accordance with Hypothesis 8c, employability was negatively related to employees’ continuance commitment to change (coefficient = -.26, \( p < .001 \)). The result implies that employees get a higher level of
continuance commitment to the change when their beliefs in personal job qualifications are low. Hypothesis 8c was supported. Hypothesis 3c assumed that information has a negative relationship with employees’ continuance commitment to change. This relationship was not found, leading to the rejection of Hypothesis 3c. The correlation matrix showed comparably high correlations between information and participation ($r = .47$, $p < .001$), which indicates that participation eliminates the effect of information. Hypothesis 4c with information as a mediator was not tested due to the non-significant relationship between information and employees’ continuance commitment to change. For determining mediation, there must be a significant relationship between the mediator and the dependent variable (R. M. Baron & Kenny, 1986), and this criterion was not fulfilled.

In Model 4, coping was included as a mediator (see Table 7). This model explained 19.4% of the variance between employees. In accordance with Hypothesis 6c, coping was found to have a negative relationship with employees’ continuance commitment to change (coefficient = -.34, $p < .001$). When employees believe they lack the skills needed to handle

<table>
<thead>
<tr>
<th>Fixed effects</th>
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<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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</thead>
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<td>3.32 (.12)***</td>
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<td></td>
</tr>
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<td>Coping</td>
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<td>887</td>
<td>879</td>
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Note: † $p < .10$. ** $p < .01$. *** $p < .001$. AIC = Akaike’s Information Criterion, a general fit-index.
the change, continuance commitment to change is likely to develop. Hypothesis 6c was supported. Hypothesis 7b stated that coping would mediate the positive relationship between change turbulence and employees’ continuance commitment to change. The effect of change turbulence was significantly reduced, indicating a mediation effect. The required significant relationship between change turbulence and coping was obtained (coefficient = -.20, $p < .001$), and is presented in Table 5 (Model 3). We refer to the same level 2 model as in the affective commitment to change model, because the group variance in coping was non-significant, indicating only very small differences between groups. After testing all involved relationships, the Sobel test confirmed the expected mediation effect ($p < .01$). The positive effect change turbulence has on continuance commitment to change decreased when controlling for coping, indicating a partial mediation effect (R. M. Baron & Kenny, 1986). This result suggests that employees in a turbulent change context experience low capability to handle the change, leading to a high level of continuance commitment to the change. Hypothesis 7b was thus supported. Model 4 resulted in a lower AIC than Model 1, indicating that Model 4 fits the data best. Hence, Model 4 was chosen as the final model.

**Discussion**

The purpose of this study was to investigate factors influencing the employees’ change commitment. Our results highlight the complexity of the commitment to change concept. Overall, the study gives a multifaceted picture of commitment to change, in that it indicates a wide spectrum of factors associated with employees’ commitment to change. Furthermore, we found that the same factor can influence the employees’ affective, normative and continuance commitment to change differently. This underpins the assumption that commitment to change reflects three distinctively different attitudes towards a change (Herscovitch & Meyer, 2002). Results generally supported our premise that HRM practises and individual dispositions are related to employees’ commitment to change. The importance of a contextual perspective in change commitment research was also revealed in this study. In addition, the results uncovered a few unexpected, but interesting relationships, the most important being that supervisor’s affective commitment to change was negatively related to employees’ affective commitment to change.

In previous research, supervisors have been emphasised as role models who are in position to influence the attitudes and behaviour of their employees (e.g., Beer et al., 1990; Yaffe & Kark, in press). However, and contrary to our expectation, results demonstrated a negative relationship between supervisors’ and employees’ affective commitment to change,
indicating that affectively committed supervisors decrease employees’ level of affective commitment to a change. The answer to this surprising finding might lie in the interaction between the supervisors and their employees. It might not be sufficient that the supervisor attempts to act as a role model encouraging employees to commit to the change, if the employees are unable to perceive the supervisor as a role model they can identify with. This explanation is supported by Yaffe and Kark (in press), who investigated the relationship between supervisors’ organisational citizenship behaviour (OCB) and employees’ OCB. They found that the strength of this relationship depended on how employees perceived their leader. When the leader was perceived as a role model worthy of identification and imitation, the relationship between leaders’ OCB and employees’ OCB was strengthened. In our study, the negative relationship between the supervisors’ and the employees’ commitment to change might imply that employees do not perceive they have a leader they are able to identify with. If an employee evaluates the relationship between her/himself and the supervisor as unsatisfactory, the supervisor’s high level of affective commitment to a change could in fact lead to a low level of affective change commitment among the employees.

As expected, change turbulence was influencing employees’ commitment to change. Multiple and overlapping changes require flexible employees who are able to handle the increased demands. When new demands continuously emerge, this flexibility can be arduous to maintain. To our knowledge, the only researchers who have included the change context in earlier studies on commitment to change, are Herold et al. (2007). Contrary to Herold et al. who investigated commitment to change as a unidimensional construct, this study examined how change turbulence is related to the three dimensional construct of Herscovitch and Meyer (2002). Since the three dimensions of commitment to change are found to develop differently, we expected that change turbulence influences affective, normative and continuance commitment to change differently. As hypothesised, change turbulence was found to have a negative relationship with employees’ affective commitment to change. In a demanding environment, it is less probable that the employees will see the change as beneficial. Their level of affective commitment to the change will therefore decrease. The relationship between change turbulence and normative commitment to change was in the opposite direction than hypothesised, indicating that a turbulent change context leads to a higher level of normative change commitment in employees. Normative commitment reflects an obligation to do what is right (Meyer & Allen, 1991), no matter what the context is. An explanation for the unexpected positive relationship between change turbulence and normative commitment to change is that employees support the change as long as they see it as their obligation,
regardless of how extensive the change process is. Thus, when change-related demands increase, the employees’ normative commitment to the change will also increase. As assumed, change turbulence was positively associated with employees’ continuance commitment to change. Change implementation is in general regarded as a stressful event (Tvedt, Saksvik, & Nytrø, 2009) because of the perceived pressure to adapt to changes in the work environment (Oreg, 2006). Our finding suggests that when there are multiple changes occurring simultaneously, the overall pressure to support each change increases, thus leading to an even higher level of continuance commitment to a focal change.

HRM practices are found essential for the development of commitment to a change initiative (Conway & Monks, 2008). This study investigated change-related information and change-related participation, and their relation to commitment to change. As expected, information was found to positively relate to both employees’ affective and normative commitment to change. In accordance with Kalyal and Saha (2008) we argue that the positive relationship between information and employees’ affective commitment to change indicates that employees receiving timely and useful information are more likely to empathise and realise the actual benefits of the change. Our study displays that when employees clearly understand the goal of the change initiative, they are more inclined to generate positive attitudes towards the change. Thus, their levels of affective commitment to the change increase. To our knowledge, the relationship between information and employees’ normative commitment to change has not been investigated before. However, based on Herscovitch and Meyer’s (2002) conceptualisation of normative commitment to change, the obligation to support a change initiative will increase as long as employees perceive it as their duty to support this initiative. Researchers have argued that one of the objectives for using information as a HRM practice is to communicate the employees’ role and function in the organisation, and the type of behaviour expected of the employees (Gould-Williams, 2004; Purcell & Hutchinson, 2007). Our results indicate that employees who are informed about expected change-related behaviour feel more obliged to support the change initiative, thus increasing their normative commitment to the change. Our results did not display any relationship between information and employees’ continuance commitment to change. This finding was inconsistent with the research of Kalyal et al. (2008), which demonstrated a negative correlation. An explanation for the insignificant finding between information and continuance commitment to change in our study is the significant correlation between participation and information. The correlation might indicate that employees who have
participation opportunities also receive more information about the change than employees with less participation opportunities.

As assumed, participation was related to all three components of commitment to change. Firstly, participation was found to have a positive relationship to employees’ affective commitment to change. Our result was in line with the findings of Bordia et al. (2004), who argued that employees involved in change implementation are more likely to see the change as beneficial. It is probable that the sense of ownership will increase when employees have the opportunity to take part in decisions related to the change process and have the opportunity to discuss and suggest strategies regarding the change initiative (Parsons et al., 1991). As affective commitment to change is based on a belief in the change’s inherent benefits (Herscovitch & Meyer, 2002), this finding suggests that employees will believe in, and support the change initiative, when they have this feeling of ownership to the change process. Secondly, participation was also found to have a positive relationship with employees’ normative commitment to change. According to Meyer and Allen’s (1990) study on organisational commitment, normative commitment is influenced by the individual’s experiences of familial and cultural socialisation. They argued that employees who have been included in various organisational practises, such as involvement in the change process, feel more obligated to remain within the organisation, and thereby are more normatively committed. We assume our finding reflects a similar relationship to that of Meyer and Allen. In our study, participation leads to a higher perceived obligation to support the change, and this obligation increases the level of normative commitment to the change. Thirdly, results also supported our assumption that participation is negatively related to employees’ continuance commitment to change. Employees with high levels of continuance commitment to a change feel pressured to support the change because they are uncertain about the consequences of failing to support it. Our results support research (e.g., Bordia et al., 2004; Parsons et al., 1991) indicating that participation buffers this uncertainty, because employees involved in the change process will increase the feeling of control. The reduction in uncertainty and the increased feeling of control will presumably make the employees less inclined to support the change because of perceived pressure to support it. To our knowledge, Kalyal and Saha (2008) are the only researchers who have investigated the link between participation and continuance commitment to change. Contrary to our results, they failed to find a significant relationship between participation and continuance commitment to change. The study of Kalyal and Saha was conducted in an Eastern context, where employees’ opportunities to participate are assumed to be limited (Bakhtari, 1995). Our research was
conducted in Norway, where employee involvement is found to be a particularly important HRM practice during change implementation (Saksvik et al., 2007). The importance of participation is also reflected in the The Norwegian Working Environment Act, which states that employees are to be included in change processes of significance ("The Working Environment Act," 2007). Thus, cultural distinctions might be the reason why our finding is contrary to those of Kalyal and Saha (2008).

The interest for studying the influence of individual dispositions on employees’ reactions to change has been growing (G. Cunningham, 2006; Judge et al., 1999b). A rationale for investigating individual characteristics in a change context is that these dispositions are influencing how employees perceive the change process. In this study both coping and employability were found to influence commitment to change.

As hypothesised, coping was found to have a positive relationship with employees’ affective commitment to change, and a negative relationship with employees’ continuance commitment to change. During organisational change coping serves as a stress buffer, because it reduces uncertainty and increases employees’ belief about handling the new work situation (Ashford, 1988; Schweiger & DeNisi, 1991). In accordance with Cunningham (2006), our study demonstrated that employees are more prone to see the beneficial sides of the change if they feel they have the skills needed to handle the new demands. Realising these change benefits are associated with affective commitment to change. Results indicate that continuance commitment to the change increases when employees are afraid of not being capable of handling the new demands imposed in the wake of organisational change. In line with the findings of Cunningham (2006), our results demonstrated that when employees perceive themselves to have low levels of coping, and believe that resistance to the change initiative is too risky (Herscovitch & Meyer, 2002), continuance commitment to the change is likely to increase.

Employability was only associated with employees’ continuance commitment to change, thus rejecting our assumption that employability relates to affective and normative commitment to change as well. The negative relationship between employability and employees’ continuance commitment to change was in line with previous research, suggesting that employees who are unable to identify and realise career opportunities, are more likely to feel pressured to support the change (Kalyal et al., 2010; Kluytmans & Ott, 1999). Our study suggests that employability can buffer the uncertainty related to the consequences of not supporting the change, thereby decreasing employees’ level of continuance commitment to change. Contrary to the findings of Kalyal et al. (2010), employability was not found to
predict employees’ affective or normative commitment to change. The non-significant relationship between employability and affective commitment to change implies that employees assess the importance and values of the change irrespectively of their beliefs in their own competence and career opportunities. The fact that also normative commitment to change was unrelated to employability, indicates that the obligation to support the change is not affected by the employees’ perceived competence. This non-significant result suggests that employees who perceive themselves as obtaining a competence useful for the organisation do not feel a stronger duty for supporting the change than people with low employability.

In addition to the direct effect, the relationship between change turbulence and employees’ commitment to change was mediated by information and coping. Results demonstrated that when there are several ongoing changes, employees need information in order to sustain a high level of affective commitment to each change (Conway & Monks, 2008; Kalyal & Saha, 2008). Information helps employees to establish a sense of prediction and understanding of the surroundings (Sutton & Kahn, 1987), which in turn makes them more capable of seeing the benefits of the change (Herscovitch & Meyer, 2002). Our results suggest that when the change context is demanding, even more information is needed to maintain affective commitment to the change.

Coping was found to mediate the relationships between change turbulence, and employees’ affective and continuance commitment to change, respectively. Results demonstrated that in a turbulent change context, employees use their coping strategies in order to maintain their level of affective commitment to the change. Cunningham et al. (2006) found that coping functions as a mediator between affective commitment to change and turnover intentions, presumably because possessing coping skills reduce stressful situations. Our results denote that coping has a similar effect for the relationship between change turbulence and affective commitment to change, in that coping reduces the stress related to a turbulent change context, thereby leading to a higher commitment to the change.

Coping was also found to mediate the positive relationship between change turbulence and continuance commitment to change. Continuance commitment to change is associated with perceived pressure to support a change initiative (Herscovitch & Meyer, 2002), and our results demonstrate that this pressure increases in turbulent change environments. Because coping is suggested to buffer stress associated with the pressure to support a change (G. Cunningham, 2006), we found support for our hypothesis stating that coping mediates the positive relationship between change turbulence and continuance commitment to change.
Limitations and Future Directions

We acknowledge limitations in this study that should be taken into account for future research. First, the present study was based on a cross-sectional design; the data collection was conducted once, which does not allow any assumptions about causality. The data collection took place almost five years after the change process was started in the organisation. The establishment of the organisation of NAV has been a comprehensive process. Although the organisation is still dealing with a lot of changes, the reorganisation is probably more settled now. It is likely that the employees’ level of commitment to change has varied in the different steps of this process. Future research should aim to apply a longitudinal design in order to draw causal inferences about the development of commitment to change during a change process. In that respect, a suggestion for future research is to test employees’ commitment to an organisational change in the beginning, during, and at the end of the change implementation in order to investigate if the level of commitment to change varies across the different change stages.

Data were collected from a single organisation. Our choice of investigating one organisation has both limitations and strengths. In the present study, the effect of change turbulence was among the main hypotheses to test. To suit this purpose, it was appropriate to have only one change context in order to ensure that all employees participating in this survey had undergone the same change process. Using data from a single organisation reduces many potential confounding factors, such as organisational culture, type of industry and other systematic factors that may affect the perception of change turbulence. However, the generalisability of the results might be limited. As data were collected from 30 different offices distributed in different parts of Norway, the representativeness within the organisation should be relatively good. A drawback with investigating only one organisation is the potentially low external generalisability. Because data were collected in a public sector organisation, results might not be representative for organisations in the private sector. For example, employees within the public sector are suggested to be more affectively committed than employees within private sector organisations. This phenomenon called ‘public ethos’ is expressed by the assumption that employees and leaders within public sector organisations are intrinsically motivated by interest and immaterial values (Byrkjeflot, 2008). The relationship between commitment to change and change turbulence in private sector organisations should be investigated in future research.

A related issue to the generalisability of this study is the use of multilevel modelling within one organisation. Multilevel analysis is a valuable research method as long as its
requirements are fulfilled. When having clustered data derived from different levels, multilevel modelling is a suitable method for data analysis (Hox, 2010). However, investigating only one organisation could make it difficult to fulfil all requirements of multilevel modelling. As data were collected from only one organisation, the differences between groups were limited. If the group differences are too small, the level 2 data cannot be utilised. An assumption when having clustered data is that employee responses depend on the group they belong to, meaning that employees within the same group will be more similar than employees across groups. The lack of significant differences between groups in the present study indicated that the differences between employees were greater than the differences between groups, and that the employee responses did not depend on the group. In our study, it was only employees’ affective commitment to change that showed significant differences at group level. Future researchers using multilevel modelling to investigate change contexts should be aware of the issues discussed above, and consider how to combine the investigation of one specific change context with obtainable groups that are sufficiently different from one another.

Concerning the manner in which commitment to change develops, the vast majority of researchers have focused on specific antecedents for commitment to change (Jaros, 2010), and so has this study. Our results indicate that several factors influence employees’ level of commitment to change. This is in itself highly interesting for both researchers and practitioners, but we acknowledge that studies such as ours would be strengthened and more focused if a theoretical framework on commitment to change existed. Such a framework should aim to explain the development of commitment to change in the first place, before it actually appears in the mind of the employees (Jaros, 2010). According to Jaros (2010), the lack of a theoretical framework is problematic, because it implies that researchers cannot conduct any systematic comparison between studies that have examined the antecedents’ predictive power. Initial models have been proposed that aim to explain and predict employees’ motivation to implement planned change (e.g., Armenakis, 1999; Coatsee, 1999). According to Jaros (2010) there is research which has investigated whether these factors are causes of commitment, but the research has not yet been conducted in a comprehensive manner. Thus, we suggest that future research should examine the already proposed theoretical frameworks on implementation motivation, in order to test their relevance for commitment to change.

A final suggestion for future research is to consider the choice of variables to be included in the study. Some of the constructs measured in this study have only been
investigated to a limited extent. Change turbulence has been tested as a mediator in the relationship between self-efficacy and commitment to change (Herold et al., 2007), but this study is the first to include change turbulence as a potential predictor for commitment to change. Supervisors’ commitment to change has, to our knowledge, not been examined in relation to employees’ commitment to change before. Because both change turbulence and supervisors’ commitment to change proved to be related to employees’ commitment to change, we suggest a further investigation of these relationships.

**Theoretical Implications**

The most important theoretical implications of this study are the investigation of change turbulence and supervisor’s commitment to change, and their potential impact on employees’ commitment to change. By including change turbulence and supervisors’ commitment to change, this study is opening up for a broader scope in the field of organisational research. The inclusion of change context acts as a counterweight to the vast majority of research that has focused on aspects related to only one particular change. In most organisational changes there is often more than one particular change going on at the same time. We argue that change studies need to be designed in a way that can account for this reality. Studying changes as if they were isolated events would impede our understanding of change phenomena (Herold et al., 2007). To our knowledge, Herold et al. (2007) are the only researchers who have included the change context in earlier studies on commitment to change. Contrary to Herold et al., who investigated commitment to change as a unidimensional construct, the present study examines how change turbulence is related to the three-dimensional construct of Herscovitch and Meyer (2002). By demonstrating the impact of change turbulence on reactions to change, we provide an explanation for why necessary and well-planned changes often fail due to lack of commitment. Our study suggests that employees’ level of commitment to change not only depend on the organisation’s communicated reasons and needs for changing, but perhaps just as much on the context in which the change is happening. Thus, this paper has contributed to a further explanation of how contextual factors influence individual-level reactions to change.

Furthermore, this study has also highlighted the role of the employees’ supervisor during organisational changes. There is a substantial amount of leadership literature positing that leaders, through acting as a role models, have the opportunity to influence the attitudes and behaviours of their employees (e.g., Bass, 1985; Burns, 1978). Even so, the empirical contributions to this subject are surprisingly few. To this date, the predictive power of leader’s
commitment to change on employees’ commitment to change has not been investigated. Our research points to a relationship between the two variables. However, contrary to what we expected on the basis of the leadership literature, our research suggests that supervisors who are willing to support the change are likely to have employees who are more reluctant to support and commit to the change. This indicates that there is far from any automatic mechanisms that ensure the transfer of positive attitudes from the leaders to the subordinates. Thus, the relationship between the attitudes of the supervisors and their employees is more complex than much of the leadership literature has traditionally suggested.

**Practical Implications**

Our results have relevance for organisations undergoing change. Improving employees’ change commitment can be decisive for the final change outcome, because commitment to change predicts not only positive attitudes towards the change, but also positive, change-related behaviour (Herscovitch & Meyer, 2002). Both affective and normative commitment to change are associated with discretionary behaviour, which indicates that employees who are affectively and normatively committed to a change are willing to perform beyond what is required. On the contrary, continuance commitment to change is not associated with extra-role behaviour, only to compliance with the change (Herscovitch & Meyer, 2002). For that reason, organisations should aim at providing what is needed for the development of affective and normative commitment to change among the employees. We want to highlight two organisational initiatives that can increase the employees’ level of affective and normative commitment to change.

Firstly, the present study suggests that information is among the factors that increase employees’ affective and normative commitment to a change. Management should therefore strive to share information about the change, and make sure that information given by the top management reaches all employees. One important reason for sharing information is that employees need to know the practical consequences of the change implementation. In order to succeed with implementation of a change, the values, benefits, and necessity of the change must also be communicated. The management should therefore secure that the change message provides the employees with honest information about the challenges associated with change implementing, but also the advantages of the change. If the management is able to articulate why the change is beneficial and necessary, they are more likely to get affectively and normatively committed employees in return. The management should also be aware that in a turbulent change context with several ongoing changes, it becomes more demanding for
the employees to see the benefits and value of the change in question. In these situations it is even more vital that employees receive change-related information.

Secondly, the organisation should include participation as a part of their strategic plan of change. Employees’ willingness and perceived obligation to support the change increase when they are included in change-related decision-making. Employees that are invited to participate in decision-making, for example regarding how the change will be implemented, are more likely to develop an understanding of beneficial aspects of the change. This requires, however, that the management involve the employees at an early stage, before all final decisions are taken. Furthermore, participation fosters the obligation to support the change. If the employees can participate in the change-related processes, and the management listens to and follows up suggestions from the employees, the employees will feel more responsible for supporting the final decisions.

**Conclusion**

Firstly, the results of this study suggest that both HRM practices and individual dispositions have an influence on employees’ development of commitment to change, and that the three components of commitment to change are to some extent influenced differently by these antecedents. Secondly, our results demonstrate that the complexity of the change context plays a significant role in how employees react to change initiatives. Consequently, our study highlights the importance of including the broader change context as a factor when investigating the development of employees change commitment. Thirdly, and contrary to what was expected, we found that a supervisor’s positive attitudes towards the change does not affect the attitudes of their employees in the same positive manner, and in fact that supervisors who believe in the value of the change have employees who are less likely to emphasise these values. The suggested relationship between supervisors’ and employees’ commitment to change can give a fruitful reference point for other empirical studies investigating this relationship. In sum, this study has confirmed well-established research within the commitment to change literature. The study has pinpointed the complex relation between supervisor’s and employees’ attitudes and behaviour towards organisational change. Furthermore, it has contributed to a broader understanding of the role of change context in employees’ commitment to change.
References


