Perceived Fairness and Resistance to Organizational Change in Relation to Change-Commitment

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Table of Contents

Abstract

The present study examined commitment to change in an organization. Change-commitment is important for the success of a change. Change-commitment is divided into affective commitment, continuance commitment and normative commitment. In order to test factors relevant for change-commitment, a multidimensional model consisting of fairness dimensions (distributive fairness, procedural fairness, interpersonal fairness and informational fairness) and resistance dimensions (affective resistance, behavioral resistance and cognitive resistance) was used. The goal of the present study was to analyze a change process and contribute knowledge about how to best approach a change. It was hypothesized that the fairness dimensions would have a positive relation to change-commitment and that the resistance dimensions would have a negative relation to change-commitment. The sample was drawn from employees working at a psychiatric clinic in the Norwegian public health sector (N=111), including 77 women and 34 men with a mean age of 44 years. This study examined the different changes the wards had gone through. Hierarchical multiple regression was used in the analysis. The results indicated partial support for the hypotheses: procedural fairness was the only fairness dimension to have a significant relationship with change-commitment. It further showed that behavioral and cognitive resistance were the only resistance dimensions significantly related to change-commitment. Practitioners may use the findings of this study to approach change; suggestions to strengthen change-commitment among employees are discussed. Future research should approach the change process with a longitudinal design, examining change-commitment's development while considering specific changes in public and private organizations.

During the last decade we have seen a dramatic increase in organizational change (Lipponen, Olkkonen, & Moilanen, 2004). This is a result of a more competitive environment, making organizations fight for their survival. To stay competitive, many changes are initiated in order to cut costs and increase efficiency (Lipponen et al., 2004). There are many types of change that can take place in an organization; Weick and Quinn (1999) made the distinction between two typical, but different types of changes, being *episodic change* and *continuous change*. On the one hand, organizations face episodic changes that are infrequent but planned and have specific goals. This type of change is also referred to as a first order change (Greenberg & Baron, 2008). On the other hand, there are organizations going through continuous change, which resembles a never-ending process of change that constantly shapes the organization. This subtle, evolutionary type of change is also referred to as a second order change (Greenberg & Baron, 2008). Some specific examples of typical changes faced by most organizations today are mergers of companies, restructuring of the organization, strategy changes, the use of new technology, outsourcing, downsizing, change in leadership and change of location (Fedor, Caldwell & Herold, 2006). Although changes in most instances will benefit employees, research shows that changes are disturbing, until the change and the new way of doing things are normalized (Fedor et al., 2006).

Even though we think we know a lot about change, most organizational changes fail to meet expectations (Herold, Fedor & Caldwell, 2007). For example, Lipponen et al. (2004) reported that 50-80% of all mergers fail to meet expectations. One of the proposed reasons for this high failure rate is that organizational mergers have been approached from the economical point of view, leaving out the players of the game, the employees. There is a consensus in the literature that organizational changes may cause harm, for example inflicting stress upon employees, and therefore potentially resulting in high turnover for the company. It is acknowledged that more time should be devoted to the human factor within an organization during a change in order for the change to be successful (Lipponen et al., 2004).

Research has shown that one of the main reasons for failed change initiatives is the lack of commitment by employees (Herscovitch & Meyer, 2002). Another perspective in the change literature emphasizes resistance among employees to be a major cause of change failure (Pardo & Fuentes, 2003). Research has so far not linked resistance and change-commitment. Furthermore, fairness during a change process plays an important role for the success of the change; employees are more likely to commit to a change if they perceive the process to be fair (Fedor et al., 2006). Change will only be successful if the chain of events is played out right. Thus, the purpose of the present study is to examine relations between fairness, resistance and commitment to change. To test this, a multidimensional model consisting of fairness dimensions, dimensions of resistance and change-commitment dimensions will be applied. To the researchers knowledge, this is the only study conducted with this multidimensional approach. The current study will have a multiple-change approach in the organization investigated in order to increase confidence and generalizability of the findings (Herold et al.,2007; Fedor et al., 2006). The goal of the present study is to contribute knowledge and understanding to the field of organizational change so management and leaders may use the findings to approach change in the best way possible.

The present study will review previous research to investigate different factors that may ultimately have a significant effect on an organizational change process and how these factors relate to change-commitment. I will first address the process of a change, and then I will draw attention to the importance of commitment during the change process. Next, I will address different types of fairness. Lastly, I will discuss resistance attitudes toward change before I go on to the findings of the current study.

Process of a Change

Many of today's theories about implementing change are rooted in the work of Kurt Lewin (Marcus, 2006; Schein, 1996; Weick and Quinn, 1999). Kurt Lewin's three step linear model: Unfreezing, Moving and Refreezing, (Fig. 1) helps us understand the fundamentals of change in social settings such as an organization. Recent concepts have opted for using five to nine steps in carrying out a change, although these extra steps tend to be steps within one of Lewin's three steps (Armenakis & Bedeian, 1999). Unfreezing is the first step of Lewin's model. The purpose of unfreezing is to create openness for a change by melting down the current state. An example of this in the organizational setting is to show employees how parts of the organization can be run more efficiently, by comparing them to other organizations. The second step is moving. When enough openness for change has been achieved, action is taken to implement the change in the moving phase. The last step in a change process is to refreeze. By refreezing Lewin emphasizes that measures are needed in order to establish the new way of doing things, so that the change becomes permanent. A good way to accomplish refreezing is to adopt positive reinforcement for appropriate behavior and take disciplinary action towards those that still embrace the old way of doing things (Marcus, 2006).

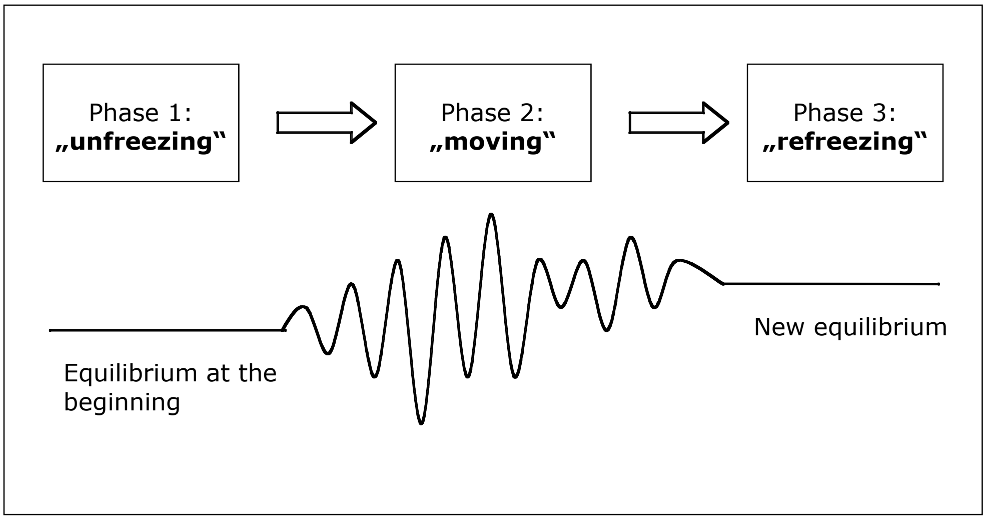

Figure 1. Kurt Lewin's model of change.

In their review of theory and research of organizational change during the 1990s, Armenakis and Bedeian (1999) mention two ground principles to take into consideration when implementing a change: (a) change takes place in several stages, which is time consuming. Any attempt in bypassing steps will decrease the chance of success, and (b) making an error in any of the stages will slow down the implementation of the change and may void progress already made.

There are as many different approaches to change as there are leaders and change instigators. Some approaches to change are favorable while others are unsuitable. Knowing the fundamentals of change theory research is key to understanding the importance of fairness, resistance and commitment during an organizational change. The current study will enhance the knowledge about how to optimally approach an organizational change by examining the change process between Lewin's moving and refreezing phase.

Commitment to Change

Commitment is in general terms defined by the Oxford Dictionary as "the state of being willing to give a lot of time, work and energy" (Crowther, Kavanagh & Ashby, 1995). As mentioned above, commitment is a crucial ingredient for the change to be successful. Change-commitment, the dependent variable in this study, is rooted from a more general form of commitment, which is referred to as organizational commitment (Herscovitch & Meyer, 2002). Fedor et al. (2006) conducted a study investigating the issue of commitment and presented the following findings from previous research:

> Organizational commitment focuses on employees' perceptions of their alignment with or attachment to their entire organization (Buchanan, 1974) and has been found to be negatively related to turnover (Cohen, 1993) and positively related to prosocial behavior (O'Reilly & Chatman, 1986), job satisfaction (Bateman & Stasser, 1984; Ford et al., 2003), motivation (Mowday et al., 1979), and attendance (Mathieu & Zajac, 1990). (p.4).

Knowing that a change most likely will cause alterations in the relationship between the employee and the organization, it is crucial for the management to understand how the change affects the employees (Fedor et al., 2006). For example, Spreitzer and Mishra (2002) found in their study of downsizing that survivors who felt more committed to the organization were more likely to remain one year after the downsizing. In regards to gaining commitment by survivors, some companies make an effort to care for people that lost their jobs. Examples of support from the organization include financial compensation, counseling or providing training or schooling to further help them get a job (Paterson & Cary, 2002).

Research distinguishes commitment to change and commitment to the organization, where commitment to change is a predictor for support of the given change (Herold et al., 2007). The current study is examining change-commitment with dimensions of fairness and resistance as predictors. A way of conceptualizing change-commitment is " 'the glue that provides the vital bond between people and change goals' " like Conner and Patterson (1982) defined it in Herscovitch and Meyer (2002, p.474).

As noted by Herscovitch and Meyer (2002), previous research from Meyer and Allen (1991) found support for the idea that organizational commitment unfolds itself in different ways. Organizational commitment has been conceptualized into three different types of commitment: affective commitment (desire to stay), continuance commitment (leaving will cause negative consequences) and normative commitment (the employee feels obligated to stay).

Herscovitch and Meyer (2002) modified the original commitment scales to measure change-commitment, rather than organizational commitment. There are some important considerations to recognize when interpreting the commitment profile of a given employee in relation to a change process, since the different types of change-commitment have different motives behind them according to Herscovitch and Meyer. Employees high on affective change-commitment will do their job to their full potential and make an extra effort to help out with the change because they genuinely believe that the change is good. In contrast, employees that show high continuance change-commitment will cooperate and work along with the change just to keep the job. Those high on normative change-commitment will act in favor of the change if they feel an obligation to do so.

Since change-commitment is such a crucial component of change, it is important to understand how change-commitment develops and how it is related to the organizational setting. Although there has not been any research done to investigate the specific development of change-commitment, we can make assumptions based on previous research of organizational commitment (Herscovitch & Meyer, 2002). Meyer and Herscovitch (2001) proposed explanations for how their different dimensions of commitment developed in the employees and how they function in an organizational setting. Affective commitment develops when the employee becomes engaged in and acknowledges the importance of the course of action due to similar values and beliefs as the organization. The way an organization going through a change can foster affective commitment is through training and participation, which in turn is likely to increase the relevance of the change and the employee's sense of belonging to the organization. Continuance commitment develops when the employee perceives that lack of commitment will result in adverse reactions, like a demotion, or if the employee has no other option than to follow the demands of the organization. A very likely situation for continuance commitment to occur is when the organization uses strategies such as rewards for compliance and punishment for noncompliance. Lastly, normative commitment develops through socialization. This occurs when the employee will feel the need to give something back to the company because the company has met the employee's expectations, or when the employee has agreed to commit through a psychological contract, which is an unwritten agreement between the employee and the company.

In addition to commitment variables mentioned above, research on self-efficacy has also contributed to the further understanding of change commitment. Self-efficacy is the perception that we have of our ability to accomplish and follow through with something (Bandura, 1977). Findings by Herold et al. (2007) show that an organization must be cautious of how aggressive the change is and how much pressure management put on employees, since employees scoring low on change self-efficacy showed lower commitment to the change if the change was too aggressive.

Change-commitment takes place at different levels of the organization. There is the organization as a whole, the work unit level and the individual level. Because of these different levels, change might not affect everyone in the organization the same way. Fedor et al. (2006) found that employees had the *highest* commitment to change when there was significant change at the work-unit level that was perceived to be a beneficial change for the work-unit members, while little demand was expected of the individual worker. From these results one may interpret that employees welcome change when the individual employee does not have to invest a lot of time and energy in adjusting to the change. The type of change that received the *least* amount of commitment were changes characterized as being low on work-unit level change and high on individual level change, even though the change was considered favorable for the work-unit. In other words, when individuals feel overworked during the change because they have to invest a great deal of time, work and effort in order to adapt, commitment to change will be low. Thus, research has shown that it is more important for the organization to gain commitment at the individual level, as opposed to the organizational level (Fedor et al., 2006).

Interpreting the high failure rate of changes, one may assume that this is one of the flaws in many changes; the individual needs are not met, causing some parts of the organization to get overworked, which in turn jeopardizes the change process. The current study will focus on the individual employees' commitment to a given change. As mentioned above, there is a distinction between change commitment and organizational commitment, where change commitment is related to the given change at hand.

The next step is to investigate predictors of change-commitment. The hypotheses in this study are focused on change-commitment in relation to perceived fairness and resistance to change.

Perceived Fairness During Change

Fairness in the workplace is growing in the field of industrial and organizational psychology; Greenberg (1987) labeled this phenomenon as Organizational Justice. Previous research has had different approaches to measure organizational fairness. Greenberg (1990) used a two-factor model where only procedural and distributive fairness was used. Procedural fairness refers to how the procedure of the change was carried out, while distributive fairness refers to the outcome of the change. Cropanzano and Ambrose (2001) suggested collapsing the traditionally distinct concepts of distributive and procedural fairness into a single fairness dimension due to overlapping effects. Other researchers like Bies and Moag (1986) operated with a dimension called interactional fairness. Colquitt (2001) broke down interactional fairness into interpersonal and informational fairness due to independent effects; this is also supported by more recent research (Kernan & Hanges, 2002).

In his study of organizational fairness, Colquitt (2001) used four different fairness dimensions: procedural fairness (process of the change), distributive fairness (outcome of the change), interpersonal fairness (treatment by leader) and informational fairness (information about the change). The purpose of Colquitt´s study was to validate a new justice measure and explore relations between organizational justice variables. Colquitt's fairness dimensions are a part of the model to be tested in the present study as a predictor for change-commitment. The assumption is that all of the fairness dimensions will show a relationship with the employees' commitment to change.

The term procedural fairness derives from justice literature, from studies of legal trials. Colquitt (2001) reported Thibauts and Walker's (1975) study in the courtroom, which found that the perceived fairness of the *outcome* of a verdict often is independent from the perceived fairness of the *process* that leads to the verdict. When this knowledge is applied to the organizational setting, certain criteria have to be met for a person to perceive change to be fair. Leventhal (1976) listed six rules of procedural justice that must be followed for the procedure to be fair. (1) The consistency rule: Procedures have to be consistent across those involved, and also consistent over time. For example, in an organizational setting, it would be unfair to give applicants for the same position aptitude tests that differ in difficulty. (2) The bias-suppression rule: People making decisions are neutral, in other words one should not serve as the judge in one's own case. (3) The accuracy rule: Procedures must be based on accurate information provided by competent people. For example, in an organizational setting, it would be considered unfair if an aptitude test did not measure work performance in a reliable way. (4) The correctability rule: There must be ways to modify or reverse decisions during the process. The option of appealing outcomes will increase perceived fairness. (5) The representativeness rule: A procedure will be considered fair if all parties involved in the process have equal voice and impact. In an organization it would then be important to take into consideration the opinion of all levels of the organization, not just leaders and top management. (6) The ethicality rule: The process will be perceived fair if the procedures remain within moral and ethical standards of the person affected. Leventhal further reported that it is situational which and how many of these rules people use in order to decide if a process has been procedurally fair. Some of these rules may not apply if the employee has expectations of how the change will unfold. Daly and Geyer (1994) suggested that if employees do not expect to have voice during a change (Leventhal's rule number 5), then absence of voice would not be perceived to be unfair.

As listed above, several criteria need to be fulfilled for perceived fairness of a change to be achieved. Hence, I hypothesize that employees in an organization will be more committed to the change if they believe that the procedure of the change is fair.

Hypothesis 1: Procedural fairness will be positively related to change-commitment.

Distributive fairness refers to the outcome of the process. In regards to an organizational change, outcome could for example be a new salary (whether it's more or less than what it was), or whether employees get their own office in the post-change era, or reversed, the employees loose their offices and get cubicles. According to Greenberg and Cropanzano (2001), it is not a given that distributive fairness is achieved when everything is divided equally. Research has shown that distributive fairness will be reached if based on one of the following criteria: equality, need and equity. When using the equality rule, distributive fairness is achieved when everybody gets the same outcome. When using the need rule, distribute fairness is achieved when those who need the most, receive the most. When using the equity rule, distributive fairness is achieved when compensation is given in relation to the individual contribution, in other words those who do more will get more (Greenberg & Cropanzano, 2001). Distributive fairness has been linked to many organizational variables including employee commitment (Fedor et al., 2006). The assumption made by Fedor is that employees will compare the immediate past situation to the new work situation, which, if it is perceived as fair, will be positively correlated to organizational commitment. An interesting finding by Lowe and Vodanovich (1995) pointed out distributive fairness to be more important than procedural fairness in relation to organizational commitment.

The outcome of an organizational change will vary among the different employees in an organization. The most important thing is that the employees believe that the outcome they receive is fair. I hypothesize that if employees perceive that the outcome they will get from the change is fair, the employee will commit to the change.

Hypothesis 2: Distributive fairness will be positively related to change-commitment.

Interpersonal fairness refers to the authority person who instigated the change and the degree to which the employee feels fairly treated by this authority figure. Change literature has focused on leadership styles in order to understand the complexity of change. Herold, Fedor, Caldwell and Liu (2008) investigated transformational leadership and change-specific leadership and how they affect the employees during a change. The difference between the two styles is that transformational leadership theory conveys a vision of a bright future for the whole organization, whereas change leadership is focusing more on the change at hand. The findings suggested transformational leadership to be the preferred approach during an organizational change because it shows a stronger relation to change commitment.

The leader instigating the change has a lot of responsibility in how he/she acts toward the employees during a change process. The way a leader behaves and handles the change is of great importance to how employees perceive fairness. Herscovitch and Meyer (2002) found in their study of leadership during a change that if the leader acted in a way that was perceived to be fair by the employees, the leader would be rated as more legitimate and competent.

We all want to be treated in a nice, respectful and fair manner by colleagues and supervisors, and during the uncertainty of a change maybe more so. I hypothesize that employees will show greater commitment to change if they perceive their treatment by the authority figure that instigated the change to be fair.

Hypothesis 3: Interpersonal fairness will be positively related to change-commitment.

Informational fairness also refers to the authority person who instigated the change, but this fairness dimension refers to whether the employee feels like he or she has received just information about the change prior to it's implementation. Although the process of change is a phase where information from the leaders to the employees should be at it's best, previous work has often found the opposite to occur. Research has shown that communication often deteriorates, causing employees to get insufficient information (Kernan & Hanges, 2002). However, when communication does take place, it can have a big impact. High quality information is found to reduce anxiety related to the change and to have a positive correlation with perceived fairness of the change (Paterson & Cary, 2002). Spreitzer and Mishra (2002) reported that giving employees advance notice will increase the degree of commitment and reduce anxiety. Realistic information will help employees get through the change process better, in the way that they can prepare themselves for potential negative outcomes, like being laid off (Schweiger & DeNisi, 1991).

Even though a change may be the biggest challenge an organization goes through, it is important that the right information is given at the right time. I hypothesize that employees will be more committed to change if they have experienced informational fairness, where information has been appropriate and given in a timely manner.

Hypothesis 4: Informational fairness will be positively related to change-commitment.

Resistance to Change

When change is to be implemented, it is seldom a surprise that resistance will be an issue. Many researchers point to resistance as being one of the main reasons for failure of a change process; resistance will in most cases cause delays to the change and make it more costly (Pardo & Fuentes, 2003). Resistance is an important factor to consider because the organization will not be ready for change to be implemented if the resistance is too high, like Lewin emphasized in his first step (Unfreezing) of the change process. However, resistance is not always a bad thing; most times there is a justified reason for resistance and in some cases motivates management to rethink certain aspects of the change (Waddell & Sohal, 1998). Some change instigators see resistance as a way of feedback that helps shape the change (Beer & Eisenstat, 1996).

The scope of the current study, in regards to resistance, is to examine its relation to change-commitment. In this section of the current study, I will highlight the mechanisms of resistance during a change and how it affects the change.

There are many reasons for resistance to occur (cf. Pardo & Fuentes, 2003). Pardo and Fuentes divided resistance as occurring in two stages: the formulation of change and the implementation of change. Some of the resistance during the formulation stage may be due to the economic cost of change, past failure, or different interests between workers and management. Resistance occurring during implementation of change may be due to deeply rooted values about how things are done in the organization from the employees or skepticism from management, due to fear of the unknown.

In answering Piderit's (2000) request to examine resistance as a multidimensional attitude towards change, Oreg (2006) examined resistance during change, focusing on affective, cognitive and behavioral resistance attitudes. Oregs' study investigated these resistance attitudes in relation to distributive and procedural fairness. These resistance components correspond to three different ways for employees to reflect and approach change. Oreg presented the following definitions for the three resistance attitudes:

> The affective component regards how one feels about the change, (e.g., angry, anxious); the cognitive component involves what one thinks about the change (e.g., Is it necessary? Will it be beneficial?); and the behavioral component involves actions or intention to act in response to the change (e.g., complaining about the change, trying to convince others that the change is bad). (p.76)

Resistance attitudes play a pertinent role in the process of change. Ideally one would want to make the employees feel good about the change, which not only reduces potential stressors around the change but also avoids a potentially longer process.

To further understand how resistance relates to change it is useful to take a closer look at Oreg's (2006) study. In his study, resistance to change was defined as a "tridimensional (negative) attitude towards change, which includes affective, behavioral, and cognitive components" (p.76). Oreg found that procedural fairness, the manner in which the change process plays out, is particularly likely to arouse behavioral resistance in the employee. Whereas distributive fairness, the outcome of a given change, is more linked to the affective and cognitive components of resistance. More specifically, Oreg included in his study a set of process and outcome variables to examine their relation to resistance. The process variables consisted of trust in management, information and social influence, while the outcome variables consisted of power and prestige, job security and intrinsic rewards.

On the one hand, we have the relations between the process variables (trust in management, information and social influence) and resistance attitudes. Oreg (2006) found that all of the process variables had a significant correlation with the behavioral resistance: actions or intention to act in response to the change. First, trust in management was negatively correlated with behavior, meaning that the more trust the employees have in management, the less they will show resistance through behavior.

Second, although the relationship between information and behavior was significant, it was in a different direction than hypothesized. Oreg (2006) had expected a negative correlation, where the more information the employees would get, the less they would resist the change through behavior. The results showed a different reality; they indicated a positive correlation between the two variables, where the more information an employee receives the more behavioral resistance he or she will show. He suggested that there is a natural explanation for this unexpected result. In many cases people show resistance for good reasons (Waddell & Sohal, 1998), as they would when more information threatens their existence in the organization. Oreg concluded that too little information as well as too much information triggers behavioral resistance from the employees. It is further argued that the best way to reduce the behavioral resistance is to provide moderate amounts of information. However, one is faced with a moral dilemma if management is keeping the truth from the employees. All in all, the relation between information and behavioral resistance suggests that the content of the information is noteworthy to the occurrence of resistance. If the nature of the information is negative for the employees, then more information worsens the situation, making it almost certain that resistance will occur. On the contrary, if the information would bring good news to the employees, one could then assume that more information decreases resistance to the change.

Third, the process variable social influence was as expected positively correlated with behavioral resistance. The practical implication of this is that if an employee is surrounded by coworkers who show behavioral resistance, the employee is then more likely to show resistance through behavior as well. This finding is also supported by previous research (Brown & Quarter, 1994).

On the other hand we have the correlations between the outcome factors (power and prestige, job security and intrinsic rewards) and the resistance attitudes. Oreg (2006) found that all of the outcome factors were negatively correlated with the affective and cognitive attitudes. First, threats to power and prestige had the strongest association with the cognitive resistance attitude (what the employee thinks about the change, whether it is necessary, or whom it will benefit). Second, job security had the strongest relationship to affective resistance attitude to change. Thus, fear of loosing one's job will trigger attitudes about how you feel about the change, for example feeling angry or frustrated. Lastly, threats to intrinsic rewards showed a strong correlation with both affective and cognitive resistance. None of the outcome factors showed any significant relation with behavioral resistance.

In line with previous work (Oreg, 2003), Oreg (2006) reported findings suggesting that some employees resist change, independent of its outcome and procedures. Thus, one may infer that some people are inherently resistant to change and will show resistance regardless of how management handles it. A study by Shapiro and Kirkman (1999) pointed out that resistance does not only occur during or after the change, but also in instances where the employees anticipate injustice before the change process has even begun.

Herscovitch and Meyer (2002) included in their study of change-commitment a behavioral measure to consider resistance and support for a given change. Respondents made a mark on a continuum, corresponding to whether they were supporting or resisting the change. Along the continuum from left to right, the anchor points representing the behavior towards change were: "active resistance, passive resistance, compliance, cooperation, and championing"(p.478). In the measure, the different anchors were defined as follows: *Active resistance* was defined as a way of opposing the change by engaging in behavior with the intention to make the change process fail; *Passive resistance* was defined as behavior with the intention to make the change process fail, but in a more concealed way; *Compliance* was defined as a way of following through with the motions of the change, while reluctantly showing modest support for the change; *Cooperation* was defined as showing support for the change by behaving in favor of it, while willing to make some modest sacrifices; *Championing* was defined as exerting pro-change behavior, in a way for success of the change to take place while promoting the change to other colleagues, which would exceed normal expectations. The findings of Herscovitch and Meyer indicated that the three types of commitment (affective, continuance and normative) positively correlate with compliance, while only affective and normative commitment correlate positively with cooperation and championing. Since Herscovitch and Meyer only examined behavioral dimensions of resistance, the present study uses Oreg's (2006) tridimensional measure including affective and cognitive resistance as well as behavioral resistance.

For an employee to be committed to a change he or she has to have little resistance, preferably none. However, this is most times not the case; resistance will always be present to some degree in a change process. As shown in Oreg´s (2006) study there is more then one way to resist a change, so for the current study I hypothesize that affective resistance, behavioral resistance and cognitive resistance will obstruct change commitment.

Hypothesis 5: Affective resistance will be negatively related to change-commitment.

Hypothesis 6: Behavioral resistance will be negatively related to change-commitment.

Hypothesis 7: Cognitive resistance will be negatively related to change-commitment.

So far we have discussed the change process as a whole. We then took a closer look at the different factors involved in a change process, which include the three types of commitment (affective commitment, continuance commitment and normative commitment), the four types of fairness (procedural fairness, distributive fairness, interpersonal fairness and informational fairness), and the resistance dimensions (affective resistance, cognitive resistance, behavioral resistance).

The model to be tested is illustrated in Figure 2. Each of the arrows from Colquitt's (2001) fairness dimensions and Oreg's (2006) resistance dimensions down to commitment to change indicates a hypothesis.

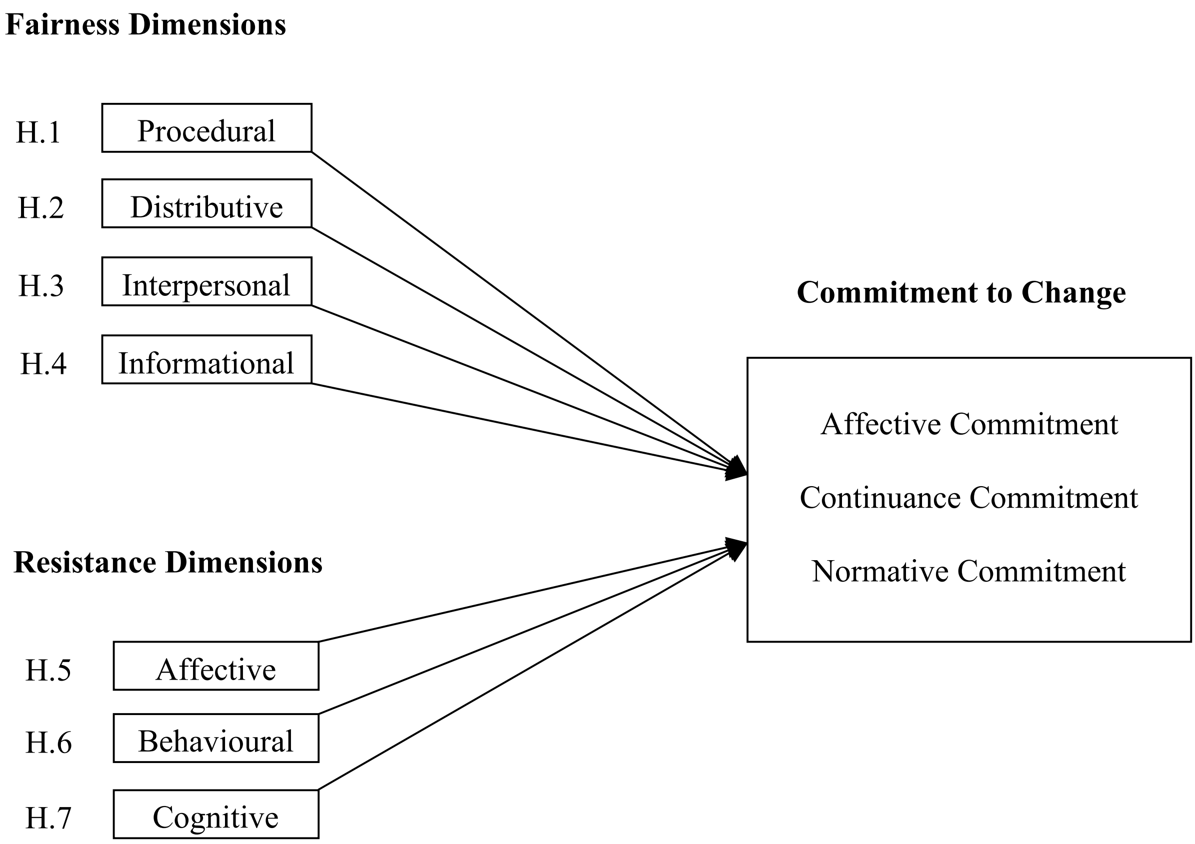

Figure 2. Path model indicating the seven hypotheses in the current study.

Method

Sample

Participants were 112 employees at a psychiatric clinic in a densely populated area of Norway. This sample included 78 women and 34 men and 72% of all the participants worked full-time. Average age of the participants was 44 years, ranging from 22 to 67 years ($M=44.16$, $SD=10.72$). Average tenure of the participants was 12 years, ranging from 1 year to 43 years ($M=11.69$, $SD=10.45$). As for education of the respondents, 18.8% had attended high school, 70.5% had attended college and 10.7% had attended university. The clinic investigated in this study is a public institution, like the majority of Norwegian health care institutions. Public hospitals in Norway are governed by the Ministry of Health and Care Services, which means that initiatives in the health care system are based on a political agenda, depending on the government in power. The psychiatric clinic in this study is part of the biggest hospital in its region and has been through an ongoing change process the last few years, due to planning of a new hospital building. The hospital has also seen a change of top management within the last few years. In addition, the psychiatric clinic and the hospital have over a period of time been faced with significant budget cuts, causing the organization to go through numerous changes, like downsizing and merging of units.

Procedure

The scales used in the current study are all originally in English. The sample was taken from a Norwegian organization; hence translation of the scales into Norwegian was necessary. The method of translation used was back translation, where the items first were translated into Norwegian and then back to English by a native English speaker for comparison. Before the questionnaires were distributed, I presented the study to the leaders of all the wards at the psychiatric clinic; later, I presented it to the individual wards. Although presenting the study personally to all the employees would have been the ideal way to reach out to respondents, this was not possible due to the different shifts people were working in this organization. A personal presentation of the study was a good way for respondents to ask questions about the study. Another reason for doing this was the assumption that the response rate would increase due to a personal connection to me as the researcher. Each participant received a paper-based questionnaire in his or her work-mailbox. In each staffroom I placed a sealed cardboard mailbox for collecting the questionnaires. An envelope was provided for the participants to enclose the questionnaire before putting it in the mailbox. The envelope and the mailbox were used for the sake of anonymity and to prevent the material from being tampered with.

The front page of the questionnaire contained detailed information about the study and instructions on how to fill it in. Respondents were asked to indicate their level of agreement with statements in the questionnaire. The employees had two weeks to complete the survey. In the formulation of the current study, a goal of obtaining at least one hundred respondents was established in order to obtain sufficient statistical power. Reminders through e-mail were sent out a week before the deadline. After the two weeks had passed, I collected the questionnaires from the mailboxes I had put out. Due to a weak response rate, the deadline was extended a week and an additional reminder was sent through e-mail. Of the 362 questionnaires that were distributed, 112 employees participated in the research (30.9%). Out of these questionnaires, one was excluded because it proved to be an outlier; resulting in a sample of 111 participants (30.6%), consisting of 77 females and 34 males.

Measures

The current study used a five-point Likert scale in the fairness dimensions, as well as a seven-point Likert scale in the resistance dimensions and change-commitment. Answers for each item ranged from *strongly disagree* to *strongly agree*.

Dependent Variable

In order to measure the level of commitment to change, participants were asked to indicate their level of agreement from items taken from the change-commitment scale previously used and developed by Herscovitch and Meyer (2002). This variable contained three commitment scales, here listed with the alpha values from Herscovitch and Meyers original research. For affective commitment ($\alpha = .94$), a sample item was “I believe in the value of this change.” For continuance commitment ($\alpha = .94$), a sample item was “I have no choice but to go along with this change.” Lastly, for normative commitment ($\alpha = .86$), a sample item was “I feel a sense of duty to work toward this change.”

Independent Variables

Perceived fairness. I measured the perceived fairness by using a scale developed by Colquitt (2001). The measure contains four dimensions of fairness and is listed below with the alpha values from Colquitt's research. For procedural fairness (α = .93), a sample item was "Have you been able to express your views and feelings during those procedures?" For distributive fairness (α = .93), a sample item was "Does your outcome reflect what you have contributed to the organization?" For interpersonal fairness (α = .92), a sample item was "Has the authority figure who enacted the procedure treated you in a polite manner?" Lastly, for informational fairness (α = .90) a sample item was "Has the authority figure who enacted the procedure explained the procedure thoroughly?"

Resistance to change. I measured resistance to change using scales developed by Oreg (2006). The measure contains the following three dimensions and is here listed with the original alpha values from Oreg. For affective resistance (α = .78), a sample item was "I had a bad feeling about the change." For behavioural resistance (α = .77), a sample item was "I presented my objections regarding the change to management." For cognitive resistance (α = .86), a sample item was "I believed that the change would harm the way things done in the organization."

Control variables. The organization participating in the current study was divided into several units which all had gone through different changes. To control for type of change that the respondent had gone through, different types of changes that normally occur in an organization were included in the questionnaire. The changes suggested in the questionnaire were merger of units, downsizing, change of leader, change of location and the use of new technology. Age and gender were also used as control variables.

Analysis

The respondents were instructed to list the change they had in mind when filling in the questionnaire. There were five suggestions of different changes and an open answer for other changes. Of the respondents, 42.3% listed the merger of units, 20.7% listed change of location, 16.2% downsizing, 11.7% listed change of leader, 1.8% listed new technology and 7.2% listed other changes, where some examples were new work hours and new job description.

Statistical analysis conducted in this study was with the use of the statistical software SPSS. Expectation maximization (EM) was used to fill in missing data, although this was not a major issue in this study since there were less than 5% missing in each variable (cf. Tabachnick & Fidell, 2007). Negatively worded items were reverse coded before analysis, like they also were in the original studies. The scales were then checked for normal distribution and reliability. The scales were sufficiently distributed and the reliability of all the scales was very good, except normative commitment. Changes were made in the normative commitment scale; excluding two of the items gave a better reliability ($\alpha = .68$).

In order to test for multivariate outliers, Mahalanobis distance was used. One participant proved to be an outlier and was therefore excluded from the sample. The output values were also checked for multicollinearity. This showed not to be a problem since the variance inflation factor (VIF) was less then 10 (Cohen, Cohen, West & Aiken, 2003). Multiple hierarchical regression was used to test the relationship between the fairness dimensions, resistance to change and commitment to change. Three hierarchical regressions, one for each commitment scale, were conducted. In the first step of the regression, the control variables were entered. The use of new technology as a change was combined with "other" changes because so few was affected, and is therefore not included in the regression. In the second step, fairness dimensions were entered, and in the third and final step, resistance to change dimensions were entered. R^2 change was examined to determine the unique contribution of each block of predictors. R^2 adjusted, which is presented in this study, was used to calculate the percentage of explained variance in each step of the regression.

Results

The correlations between all the variables and the alpha values of the scales are presented in Table 1. The regression results for each dependent variable are found in Table 2 (affective commitment), Table 3 (continuance commitment) and Table 4 (normative commitment). Hypothesis 1 suggested that procedural fairness would be positively related to change-commitment. This hypothesis was partially supported. This fairness dimension was however only significantly related to affective commitment (β=.16, $p < .05$).

Hypothesis 2 predicted distributive fairness to be positively related to change-commitment. This hypothesis was not supported, but distributive fairness was significantly related to affective commitment (β=.41, $p < .001$) in the second step of the regression, without the resistance variable. Behavioral and cognitive resistance take away influence from distributive fairness in the third step of the regression indicating multicollinearity. The problem seems to be the high correlations between resistance dimensions and affective commitment. However, the VIF of affective and behavioral resistance were lower than 10, which is a commonly used threshold for detecting multicollinearity (cf. Cohen, Cohen, West & Aiken, 2003). In addition, after having examined the collinearity diagnostics, values confirmed that there are no problems with multicollinearity in the scales. I therefore decided to include and interpret this finding in the analysis. Hypothesis 3 and 4, including interpersonal and informational fairness, were not significantly related to any of the commitment dimensions and therefore not supported.

Hypothesis 5, suggesting that affective resistance would have a negative relationship to change-commitment, was not supported. Hypothesis 6 predicted behavioral resistance to be negatively related to change-commitment. This hypothesis was partially supported and showed a significant relationship with affective commitment ($\beta = -.31$, $p < .01$). Hypothesis 7 predicted cognitive resistance to be negatively related to change-commitment. This hypothesis was partially supported and showed a significant relationship with two of the commitment dimensions. First, it was negatively related to affective commitment ($\beta = -.57$, $p < .001$). Second, it was significantly related to continuance commitment as well, but in the opposite direction predicted ($\beta = .35$, $p < .05$).

As shown in the regression tables, change of leader was the only type of change significantly related to change-commitment. It is positively related to affective commitment while negatively related with continuance commitment. The only variables that had a significant relationship with normative commitment was age ($\beta = .21$, $p < .05$) and gender ($\beta = .19$, $p < .05$), with men being more normatively committed than women.

Table 1

Means, standard deviations, and correlations of the measured variables (N=111)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	44.07	10.73	(—)															
2. Gender	.68	.47	.19*	(—)														
3. Merger of units	.42	.50	.03	-.04	(—)													
4. Downsizing	.16	.37	-.07	-.07	-.38***	(—)												
5. Change of leader	.12	.32	-.07	.13	-.31**	-.16	(—)											
6. Change of location	.21	.41	-.04	-.04	-.44***	-.23*	-.19	(—)										
7. Affective commitment	3.83	1.76	-.07	.04	-.28**	-.10	.36***	.23*	(.93)									
8. Continuance commitment	4.51	1.39	.25**	.03	.09	.07	-.29**	-.01	-.51***	(.84)								
9. Normative commitment	4.29	1.17	.22*	.22*	-.19*	-.03	-.06	.23*	.21*	.26**	(.68)							
10. Procedural justice	2.92	.72	-.11	-.00	-.11	-.15	.06	.26**	.58***	-.41***	.15	(.80)						
11. Distributive justice	2.69	.99	-.11	.03	-.15	-.07	.14	.24*	.65***	-.37***	.15	.71***	(.88)					
12. Interpersonal justice	3.79	.84	-.20*	.06	.06	-.23*	.16	.08	.30**	-.35***	.09	.56***	.42***	(.86)				
13. Informational justice	3.05	.90	-.12	.06	-.10	-.13	.22*	.17	.51***	-.38***	.13	.72***	.60***	.70***	(.90)			
14. Affective resistance	4.20	1.72	.15	-.01	.29**	.10	-.33***	-.23*	-.80***	.52***	-.18	-.57***	-.63***	-.32**	-.53***	(.91)		
15. Behavioural resistance	3.83	1.72	.13	.00	.25**	.11	-.35***	-.19*	-.80***	.47***	-.22*	-.49***	-.61***	-.34***	-.47***	.88***	(.88)	
16. Cognitive resistance	4.25	1.64	.07	-.05	.31**	.13	-.38***	-.25**	-.87***	.53***	-.19*	-.52***	-.63***	-.27**	-.47***	.85***	.78***	(.89)

Note: $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. Alpha coefficients are on the diagonal.

Table 2. *Hierarchical multiple regression predicting commitment to change*

	Affective Commitment (β)		
	Step1	Step 2	Step 3
Control variables			
Age	-.03	.01	.02
Gender	.00	-.01	.00
Merger of units	-.01	-.06	.04
Downsizing	.02	-.01	.05
Change of leader	.41**	.28**	.08
Change of location	.31	.09	.04
Independent variables: Fairness Dimensions			
Procedural fairness		.24*	.16*
Distributive fairness		.41***	.04
Interpersonal fairness		-.11	-.05
Informational fairness		.08	.02
Resistance to change			
Affective resistance			.08
Behavioral resistance			-.31**
Cognitive resistance			-.57***
R^2 adjusted	.17	.51	.79
R^2 change	.22***	.33***	.26***
F-value	4.87***	12.35***	31.89***

Note: *$p < .05$; **$p < .01$; ***$p < .001$.

Table 3. *Hierarchical multiple regression predicting commitment to change*

	Continuance Commitment (β)		
	Step1	Step 2	Step 3
Control variables			
Age	.22*	.16	.15
Gender	.02	.04	.03
Merger of units	-.04	-.02	-.08
Downsizing	.00	-.03	-.07
Change of leader	-.31*	-.25	-.13
Change of location	-.07	.05	.08
Independent variables: Fairness Dimensions			
Procedural fairness		-.29	-.20
Distributive fairness		-.09	.12
Interpersonal fairness		-.09	-.16
Informational fairness		.00	.07
Resistance to change			
Affective resistance			.20
Behavioral resistance			-.05
Cognitive resistance			.35*
R^2 adjusted	.09	.22	.32
R^2 change	.14*	.15***	.11***
F-value	2.88*	4.12***	4.93***

Note: *$p < .05$; **$p < .01$; ***$p < .001$.

Table 4. *Hierarchical multiple regression predicting commitment to change*

	Normative Commitment (β)		
	Step1	Step 2	Step 3
Control variables			
Age	.18	.21*	.21*
Gender	.19*	.18	.19*
Merger of units	-.20	-.23	-.20
Downsizing	-.07	-.07	-.05
Change of leader	-.12	-.17	-.23
Change of location	.11	.06	.05
Independent variables			
Fairness Dimensions			
Procedural fairness		-.00	-.01
Distributive fairness		.08	-.04
Interpersonal fairness		.08	.07
Informational fairness		.04	.03
Resistance to change			
Affective resistance			.12
Behavioral resistance			-.31
Cognitive resistance			-.06
R^2 adjusted	.11	.10	.11
R^2 change	.15**	.02	.04
F-value	3.14**	3.15**	2.02**

Note: *$p < .05$; **$p < .01$; ***$p < .001$.

Discussion

The purpose of this study was to analyze a change process and contribute knowledge and understanding about organizational change to the research community and practitioners. In agreement with previous research (Lipponen et al., 2004), the importance of dealing with the human factor of the organization during change cannot be emphasized enough. The current study examined perceived fairness as well as resistance during the change in order to investigate the level of change-commitment employees had. As mentioned above there are several motives behind being committed to a change, and in this study we have investigated affective commitment (genuine desire to make the change successful), continuance commitment (willingness to commit to the change is present, but only to avoid costs) and normative commitment (going along with the change because the employee feels obligated to). The seven hypotheses presented in this study investigated whether the predictors had a relation to change-commitment. The fairness dimensions were predicted to have a positive relationship with change-commitment, while resistance dimensions to change were predicted to have a negative relationship with change-commitment.

The first hypothesis, predicting a positive relationship between procedural fairness and change-commitment, was partially supported, in that it was significantly related with affective commitment. This suggests that if the employee perceives the procedure of the change as fair, the employee will have a desire to help out with the change and make an extra effort for its success. The second hypothesis, predicting distributive fairness to be positively related to change-commitment, was not supported. It should be mentioned, however, that distributive fairness was significantly related with affective commitment, with a high level of significance in the second step of the regression. This proposes that if the outcome of the change is perceived to be fair, such as payment or getting more interesting job-tasks after the change, the employee will commit and work for the good of the change. As already mentioned this hypothesis was not supported in the third step of the regression; the results indicated that the resistance dimensions accounted for more variance in affective commitment than the fairness dimensions. Hypothesis 3 and 4 concerning interpersonal and informational fairness did not show significant effects on the dependent variable in this study and were therefore not supported.

The three following hypotheses predicted a negative relationship between resistance to change and change-commitment. Hypothesis 5, anticipating affective resistance to be negatively related to change-commitment, was not supported in this study. Hypothesis 6 hypothesized behavioral resistance to be negatively related to change-commitment and was partially supported, in that it had a significant relation with affective commitment. This finding suggests that the more employees are actively working against the change by complaining or convincing others that the change is bad, the less they will cooperate to make the change happen. In other words, the less behavioral resistance employee's show, the more they will help out and be committed to the change. Hypothesis 7, predicting cognitive resistance to be negatively related to change commitment, was partially supported. Cognitive resistance was, as predicted, negatively related to affective commitment, which means that the more negative thoughts employees have about the change, the less they are willing to help out with the change. Cognitive resistance was significantly related to continuance commitment as well, but in the opposite direction predicted. The finding suggests that the more negative thoughts the employees have about the change, the more they will engage in continuance commitment.

The analysis showed that change of leader was the only change related to change-commitment. Change of leader had a positive relation to affective commitment and a negative relationship with continuance commitment. This suggests that some employees will actively help out with the change if they get a new leader, engaging in affective commitment. While others will show less continuance commitment with a new leader, in other words have more continuance commitment if they don't get a new leader.

The only type of commitment that none of the independent variables were related to was normative commitment. In other words, the results showed no evidence of employees going along with the change because they felt obligated to do so. Only the control variables age and gender had a significant relationship with normative commitment. The positive relation of these control variables with normative commitment may be explained by the fact that those who have worked there the longest, in particular the men, feel obligated to go along with the change. The reason why older employees feel more obligated to commit to the change contra the young may be explained by the change in attitude and loyalty to their workplace. People used to work a lifetime in the same organization, whereas people today tend to change jobs more often (Burgess & Rees, 1996; Gregg & Wadsworth, 1995).

Unlike the findings of Lowe and Vodanovich (1995) that found distributive fairness to play a stronger role than procedural fairness in relation to normative commitment, the present study found procedural fairness to have a slightly stronger relationship with normative commitment. It should be noted that the present study did not use the same scales as Lowe and Vodanovich, which may be a reason for the different findings. A likely explanation for the different findings may be that the organization taking part in this study is a state owned institution, where outcomes like salary and job tasks typically do not have much room for alteration among the workers after a change. In other words, the employees are more concerned about the management's handling of the change as it goes along.

By looking at the results of this study, relationships concerning affective and continuance commitment are the most present. On the one hand it gives a picture of an organization where there is a group of employees working to promote change because they want the change to succeed, and on the other hand a group that are working along with the change because they fear that not doing so will lead to negative consequences. Furthermore, it should be mentioned that a reason for employees showing continuance commitment in the current study might be due to the unstable world economy at the time of the data collection, when the lack of alternatives might foster continuance commitment (Meyer & Allen, 1991). The loss of thousands of jobs had been predicted in the Norwegian job market prior to this study.

Like most all other research, this study also has limitations. First, the number of respondents was moderate, which may lead to self-selection bias (Whitehead, 1991); this means that the particular respondents taking part in this study stand for something else than the majority of the employees, making them overrepresented. In other words, those who did participate might have been those very high or very low on change-commitment in the first place. Second, when self-report data is used, there is always the concern about the accuracy of the data. Examples of methodological concerns when using self-report data are common method variance, consistency motive and the social desirability problem (cf. Podsakoff & Organ, 1986). In this study, the respondents filling out the questionnaire were asked to keep in mind the most recent change that impacted them the most. Whereas some may have just been through a change and could remember more details, others might have been thinking about a change that happened some time ago. This leads to the issue of whether or not the respondents were able to recall the change in the degree of detail that the questionnaire demanded. Third, due to anonymity considerations, the different wards in the current study were not controlled for, which could have provided valuable insights on commitment levels of the different work units. Fourth, high correlations among the resistance scales make it difficult to interpret results in the regression. Due to high correlations the effect of the predictors is not stable. The variance explained by a specific variable changes when additional variables are introduced. Future research needs to refine the resistance scales; a validation for the Norwegian version of the scales should be performed in order to check for items that do not belong. Fifth, as Herscovitch and Meyer (2002) experienced with their sample of nurses, this study also had a majority of women participating. This might make it difficult to generalize to other organizations where the sexes are more balanced, even more so with organizations that are male dominated. Lastly, although the scales used in the questionnaire generally showed a very good reliability, there were some concerns around the normative commitment scale. After having omitted two items, the scale showed to have minimally acceptable reliability (DeVellis, 2003), which was sufficient for it to be included.

The strength of the study is that it took different changes into consideration, which increases the confidence and generalizability of the findings (Herold et al.,2007; Fedor et al., 2006). The findings are also to some extent generalizable to the Norwegian state health services due to the composition of the sample and the fact that all public hospitals are affiliated to the same head organization, allowing to presume that change procedures follow certain norms. The findings might also apply to other state governed Norwegian organizations as well, since they all operate under the government. In addition, the current study is to my knowledge the only research performed where fairness and resistance dimensions in relation to commitment during change have been studied.

Future research should consider commitment to change at several stages of the change process. This would be accomplished by using a longitudinal design where the survey could be conducted parallel to Kurt Lewin's (Marcus, 2006) model of change: in the formulation of the change, during the implementation of the change and while adapting to the change. This would provide a better picture of how change-commitment evolves through the different stages of the change. Further research should also consider the effects of specific changes to further understand the exact dynamics behind each change in relation to change-commitment. In addition, whereas this study looked at change from the individual level it would be helpful to learn more about change dynamics within and between work units to examine how change-commitment is affected. Lastly, it would be useful to study the difference between private and public organizations in regards to change-commitment during a change process. As already mentioned, the organization in this study is a state owned organization, where changes follow strict procedures that often stretch out in time. A privately owned organization where economical profit is more central might deal with change faster and more abruptly. This in turn may have implications for the dimensions of fairness and resistance in relation to change-commitment. Another way organizations in the business community differ from state run organizations is that the former tend to use bonuses to a larger degree and generally have salaries that vary more among employees. This in turn may demonstrate a stronger relationship between distributive fairness and change-commitment among the employees than it would in state run organizations. Examining the possible distinction between private and public organizations will ultimately give a better picture of how to face commitment issues in each arena.

The results also have implications for practitioners. The findings of the current study will help management to better understand factors that are important to focus on for a change to be successful. The finding of Hypothesis 7 in regards to the relationship between cognitive resistance and continuance commitment indicated that some employees work for the change, but actually think negatively of the change. These are employees that may be afraid to speak out their opinion to avoid adverse reactions. This may further indicate that there are too few ways for continuance committed employees to voice their resistance, since they obviously are against the change, but are only thinking about it. An idea for the psychiatric clinic participating may be to have a way for employees to show resistance in an anonymous way. After all, most times there is a justified reason for resistance (Waddell & Sohal, 1998). Using resistance as feedback like Beer and Eisenstat (1996) suggested may help management go through with change more swiftly, since accommodating the employees will most likely reduce resistance.

I have already discussed the two commitment variables that had a significant effect in this study, but looking at the commitment variable that was not significantly related to the predictors, normative commitment, can help practitioners understand how it may be improved. Normative change-commitment should be taken very seriously. As already mentioned above, Herscovitch and Meyer (2002) proposed that normative change-commitment develops during socialization to the organization. If this process has been successful, and the company on their part has fulfilled the expectations of the employee, the employee will feel the need to reciprocate by going along with the change, showing normative commitment. The organization participating in the current study should consider improving their socialization process in order to gain normative change-commitment, especially for young female employees, as normative commitment is related to age and gender. The socialization process starts during the first interview of a potential employee. In the initial interview and the immediate period after a person has been hired, a lot of information about rights and rules at the workplace is conveyed. Again, the employee will be normatively committed when the organization on their part has fulfilled the expectations of the employee. This is where the organization has to beware; if it fails in meeting the employee's expectations they risk losing normative change-commitment in the employee.

As previously mentioned, most organizational changes fail to meet expectations (Herold, Fedor & Caldwell, 2007). The best approach available is to follow the suggestions from the change literature, while being sensitive to the human factor. For an employee to truly perceive fairness of a change and for optimal change-commitment to occur, procedural, distributive, interpersonal and informational aspects of the change must all be applied when going through a change.

To conclude, this study makes it possible to understand a change from the perspectives of fairness and resistance dimensions in relation to change-commitment; this is, to the knowledge of the researcher, the only study that has taken this point of view. In this respect, this study is making new contributions to the change-commitment literature. This study is useful in the sense that it gave a better understanding of change factors that played a role in the organization participating, while giving ideas to areas of improvement. Future research will be able to continue in the line of the present study and take into consideration group dynamics, specific changes, and private opposed to public organizations as well as having a longitudinal perspective.

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