Research Article

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Committed to change? Human resource management practices and attitudes towards organizational change

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Abstract: Organizations rely on human resource management (HRM) practices to steer organizational change, but little is known about the effects of HRM practices on employees' attitudes towards change. This study aims to investigate the relationship between employees' perception of HRM practices and their commitment to change. The sample comprised 221 employees of a public organization after it underwent an organizational change. Data were analyzed through structural equation modeling, considering HRM practices as individual predictors or as a second-order factor of aligned HRM practices. The results indicate that the model with individual HRM practices achieved a superior fit, but only two practices – communication and autonomy – were related to affective commitment to change. The model with a second-order factor of aligned HRM practices showed a clear positive relationship with affective and normative commitment to change, and a clear negative relationship with continuance commitment to change. Investing in HRM practices to support an ongoing change helps organizations to convince employees of the necessity and value of the change. This study provides empirical evidence that HRM practices are important for supporting employees' commitment to change and encouraging their positive behavior towards change.

Keywords: Organizational change, Commitment to change, Human resource management practices

Introduction

Positive employee attitudes towards change, as well as supportive employee behavior, have been identified as important success factors for organizational changes (Fugate, 2012), even though such changes are often driven by economic and technological goals. A commitment to change is presumed to be one of the core aspects of employees' support for its implementation (Armenakis, Harris, & Feild, 1999; Bouckennooghe, Schwarz, & Minbashian, 2015; Herscovitch & Meyer, 2002; Jaros, 2010). It forms a psychological bond between the individual employee and the organizational goals of change, and it demonstrates that a given change has been institutionalized.

Many organizations rely on human resource management (HRM) practices to support an ongoing organizational change (Alfes, Truss, & Gill, 2010; Armenakis et al., 1999). While some research has explored the roles of human resource managers during change (e.g., Alfes et al., 2010; Antila, 2006; Caldwell, 2001), or addressed HRM practices as change drivers (e.g., Whelan-Berry & Somerville, 2010), very few studies have shown how HRM practices influence employees' behavior and attitudes in the specific context of change (e.g., Conway & Monks, 2008; Giauque, 2014). Similarly, only a small number of studies have discussed the

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relationship between HRM and commitment to change (e.g., Fugate, 2012; Maheshwari & Vohra, 2015) or investigated the effect of HRM practices on attitudes towards change (Conway & Monks, 2008; Giauque, 2014). The current study thus aims to examine the relationship between HRM practices and employees' commitment to change.

Despite the high practical relevance attributed to HRM practices, few have been found to be significantly related to commitment to change or attitudes towards change (Conway & Monks, 2008; Giauque, 2014), suggesting that their importance has been overvalued. However, the lack of significant relationships in the tested models, despite significant bivariate correlations, might also be the consequence of confounding effects (MacKinnon, Krull, & Lockwood, 2000) that conceal the true relationships. The potential confounding effects point to the option of considering HRM practices as a system of aligned – instead of individual – practices (Delery & Doty, 1996). Aligned practices pursue the same goal, and synergies occur between the practices (Jackson & Seo, 2010). A system of aligned practices better explains organizational performance than individual practices that ignore relationships between practices (Lepak & Shaw, 2008). In the context of organizational change, a system of aligned practices consists, for example, of careful communication during the change, training of competencies required because of the change and performance appraisal linked to the goals of the change. In this study, HRM practices are investigated both individually and as a system of aligned practices in relation to affective, continuance, and normative commitment to change to capture both desirable and undesirable attitudes towards change.

By pursuing this objective, this study contributes to the literature in three ways. First, this study adds to the existing body of research on organizational change, by providing evidence on the role and relevance of HRM practices during organizational change (Oreg, Vakola, & Armenakis, 2011). The study shows that the use of HRM practices in change situations leads to the desired outcome: the employees' commitment to the change. It, thus, allows us to derive beneficial advice on how organizational change can be managed through the use of such practices. Second, by considering both individual HRM practices and a set of aligned practices, interrelations between these and their joint influence are taken into account (Delery & Doty, 1996). The influence of HRM practices on commitment to change can be compared between the two models that produce different patterns of results. Third, by measuring commitment to change in three components (affective, normative and continuance change commitment: Herscovitch & Meyer, 2002), this study shows differential effects for the three components without limiting the results to global or affective commitment to change.

HRM Practices and Commitment to Change

Commitment to change is differentiated into three components: affective, normative, and continuance (Herscovitch & Meyer, 2002), which describe the different motivational factors affecting employees' commitment to a change. When employees show high affective commitment to change, they are willing to support the change because of its advantages. Affective commitment to change has often been researched, and relationships with a range of antecedents have been shown (e.g., Conway & Monks, 2008; Hill, Seo, Kang, & Taylor, 2012; Seo et al., 2012). It captures positive aspects of commitment to change and is considered a desirable employee attitude. Employees who score highly on normative commitment to change feel obliged to support the change, while those who develop continuance commitment to change recognize the costs of failing to support the change. Continuance commitment to change is considered an undesirable attitude towards change and has rarely been researched (e.g., Bouckennooghe, 2012; Neves, 2011; Parish, Cadwallader, & Busch, 2008). Combining all three dimensions of commitment to change allows us to explore whether HRM practices promote the positive effects of organizational change while preventing negative impacts.

Prior research has shown that HRM practices facilitate change since they enhance employees' competences, motivation, and opportunities (Armenakis et al., 1999; Conway & Monks, 2008; Fugate, 2012; Herscovitch & Meyer, 2002). An organization can demonstrate support for its employees and communicate the change message through the use of HRM practices (Armenakis et al., 1999), which can, consequently,

reinforce a change process and help employees perceive the benefits resulting from the change initiative.

While a broad range of literature has explored organizational antecedents of commitment to change (Hill et al., 2012; Neves, 2011; Seo et al., 2012; Shin, Seo, Shapiro, & Taylor, 2015), only a small number of studies have investigated the influence of HRM practices on commitment to change (Bouckennooghe, 2012; Conway & Monks, 2008; Parish et al., 2008). Conway and Monks (2008) examined eight HRM practices in relation to affective commitment to change: two (communication and rewards) were positively related thereto, while six (career and performance development, autonomy, training, staffing, job security, and teamwork) were unrelated. Conway and Monks focused on satisfaction with HRM practices, arguing that commitment to change is more likely to be related to employees' – rather than managers' – perceptions of these practices. Their study covers HRM practices broadly, but only connects them to affective commitment to change, thus exploring the positive effect of HRM practices on the commitment to change. Further studies have investigated individual HRM practices in combination with other organizational antecedents, finding that change-related communication and role autonomy are positively associated with affective commitment to change (Hill et al., 2012; Parish et al., 2008; Rogiest, Segers, & Witteloostuijn, 2015). Only Bouckennooghe (2012) failed to find a relationship between formal communication and affective commitment to change, despite a significant bivariate correlation between the two. It can, hence, be concluded that the majority of studies provide evidence that particular HRM practices enhance affective commitment to change.

As expected, change-related communication and role autonomy were found to be negatively related to continuance commitment to change (Bouckennooghe, 2012; Parish et al., 2008). The negative aspect of continuance commitment to change – that employees are only committed because of the perceived costs of not being committed – makes it undesirable to organizations, and research results are, thus, largely consistent with the definition of this component (Herscovitch & Meyer, 2002).

The relationships between HRM practices and normative commitment to change are less clear. Whereas change-related communication and role autonomy were not found to be associated with normative commitment to change (Bouckennooghe, 2012; Parish et al., 2008), the effectiveness of top management's change-related communication was found to be positively related to normative commitment to change (Hill et al., 2012). A relationship between communication and normative commitment to change could, thus, be potentially expected.

Previous research has provided evidence for a relationship between particular HRM practices and commitment to change. This pattern of results does not allow us to assume associations between all HRM practices and commitment to change. In sum, the studies investigating commitment to change suggest that employees' satisfaction with certain HRM practices is positively related to affective and normative commitment and negatively related to continuance commitment to change. Thus:

Hypothesis 1: Employees' satisfaction with HRM practices – in particular, communication, rewards, and autonomy – is positively related to affective commitment to change.

Hypothesis 2: Employees' satisfaction with HRM practices – in particular, communication and autonomy – is negatively related to continuance commitment to change.

Hypothesis 3: Employees' satisfaction with HRM practices – in particular, communication – is positively related to normative commitment to change.

Extant research indicates that only a small number of HRM practices are especially relevant in facilitating affective and normative commitment to change or diminishing continuance commitment to change (Bouckennooghe, 2012; Conway & Monks, 2008; Giauque, 2014; Parish et al., 2008). The correlation tables in these studies, however, show significant bivariate correlations between all HRM practices and commitment to change, though some of the significant relationships vanish in the final analysis. In the study by Conway and Monks (2008), the bivariate correlations between six of the eight HRM practices and commitment to change ranged from .35 to .80, but in the multivariate regression, only two relationships proved to be significant, and some of the non-significant ones changed their sign from positive to negative. Giauque (2014) investigated the effect of seven HRM practices on positive attitudes towards change that can be assumed to be based on positive thoughts and feelings, such as in affective commitment to change. Like Conway and Monks (2008), Giauque focused on employees' satisfaction with each practice. He presented

for all HRM practices substantial bivariate correlations (between .30 and .53) with positive attitudes towards change, although only information, participation, and work-life balance showed a significant effect in the multivariate regression. The pattern of results in both studies indicates a confounding effect (MacKinnon et al., 2000).

Because of the high intercorrelations, the HRM practices compete to explain variance in commitment to change. When introduced together, the effect of each HRM practice on commitment to change is diminished. Hence, when HRM practices are examined in combination with different organizational antecedents, or as individual practices, they can be more easily identified as significant predictors (Bouckennooghe, 2012; Hill et al., 2012; Parish et al., 2008; Rogiest et al., 2015). Thus, it cannot be concluded that the results of the multivariate regression represent true relationships between HRM practices and commitment to change. The confounding effect indicates that the HRM practices are highly interrelated and that their interrelation should be taken into account.

To our knowledge, only two studies relate a larger number of HRM practices to affective commitment to change or positive attitudes towards change (i.e., Conway & Monks, 2008; Giauque, 2014) and further evidence on suppressor effects is, thus, limited. A similar pattern of correlations is, however, found in studies relating HRM practices to organizational commitment (Giauque, 2014; Giauque, Resentera, & Siggen, 2010; Kinnie, Hutchinson, Purcell, Rayton, & Swart, 2005). Commitment to change has been developed from organizational commitment (Herscovitch & Meyer, 2002) and it can, hence, be assumed that the patterns of correlations are comparable. In the studies of Kinnie et al. (2005), Giauque (2014), and Giauque et al. (2010), the correlations among the HRM practices exceed the correlations between these practices and commitment. For example, Kinnie et al. report, for their manager subsample, regression effects on commitment for four out of ten HRM practices (i.e., career opportunities, rewards and recognition, involvement, and communication), although all ten HRM practices were found to be significantly correlated with commitment, particularly with performance-related pay and performance appraisal. When introduced together, the correlated HRM practices compete against one another in explaining variance, and a confounding effect occurs (MacKinnon et al., 2000). This confounding effect cannot be transferred into a mediation effect because the individual HRM practices are not assumed to cause one another. The interrelations between practices, however, indicate that they all belong to one larger construct. This corresponds to the argument that HRM practices should be aligned with one another and implemented together (Lepak & Shaw, 2008). Aligned HRM practices are well coordinated and aim to reach the same organizational goal (Jackson & Seo, 2010). The interrelations and the confounding effect, hence, serve to support the assumption that systems of related HRM practices are relevant for commitment to change. It can, further, be assumed that the statistical models fail to identify a perfect representation of HRM practices and their effect on commitment to change, when highly correlating single practices are simultaneously introduced.

Researchers have argued that a set of aligned practices is more effective because employees are exposed to several HRM practices that have complementary effects on work performance (Lepak & Shaw, 2008). Based on the research reviewed above, it is hypothesized that a set of aligned HRM practices will be positively related to affective and normative commitment to change and negatively related to continuance commitment to change. It is further assumed that a model with a set of aligned practices shows a superior fit to the data than a model with individual HRM practices. Thus:

Hypothesis 4: A set of aligned HRM practices is positively related to affective commitment to change.

Hypothesis 5: A set of aligned HRM practices is negatively related to continuance commitment to change.

Hypothesis 6: A set of aligned HRM practices is positively related to normative commitment to change.

Hypothesis 7: A model with a set of aligned HRM practices shows a superior fit to the data compared to a model with individual HRM practices.

Methods

Organization

This study was conducted in a large Norwegian public organization that had implemented a large-scale change affecting all 6,000 employees. A new organizational structure, with five big regional units and one call center for customers, had been established. The new units were expected to perform more effectively and to act in a more customer-oriented way. The implementation of the organizational change lacked thorough planning and the change was described as chaotic. Problems occurred because work tasks and systems had not been fully adapted to the change and employees had not received initial training. Some issues remained unsolved one year after the change; consequently, several measures were only adopted after this point in time, such as leadership seminars for employees newly hired into a team leader role and measures to prevent absenteeism.

The organization aimed to support the change actively through HRM practices, such as staffing, participation, information, training, and performance management (in the call center). Supervisors were responsible for delivering organizational HRM practices and acted as facilitators to enhance the change with HRM practices that the organization had earlier neglected. They focused on communication within the team, team-building (as part of training), rewarding employees, and giving feedback.

A broad range of HRM practices was delivered that had either been developed to support the change or pre-existed it. In detail, employees were invited to apply for positions similar to or higher than their pre-change roles. The supervisors conducted interviews with all employees to select them on the basis of their motivation and competences. Some employees were hired for their preferred positions, while others were not, creating conflicts and negative attitudes among employees. Employees were involved in the planning of the change through workshops and seminars. Information on the progress of the change and the future way of working was regularly published on the organization's intranet, and information meetings were held. Supervisors actively communicated the positive aspects of the change to convince their co-workers to support it. A helpline was established to answer employees' questions regarding the upcoming change. Supervisors and employees could attend courses supporting the change process, and team-building was one of the main development goals. Employees in the call center were expected to start their work without initial training. While supervisors were offered internal training for the newly implemented systems, this was only provided during the year after the change. In the call center, feedback on performance was given using formal performance management tools. In the other units, formal feedback was limited to the yearly appraisal interview, but supervisors provided informal feedback more often. To prevent competition between the teams, feedback was not based on each team's quantitative results. Because a formal reward system had not been planned, supervisors individually decided which rewards to offer, such as challenging tasks, praise, or social activities. Employees could develop in their work task, but further opportunities for career development were limited. While some employees were satisfied with these opportunities, others were disappointed.

Sample

The employee survey was administered one year after the change had been implemented. In total, 380 employees from 34 teams in two regions and the call center were invited to participate in the quantitative survey. Overall, 221 employees (response rate of 58%) completed the online questionnaire. The respondents were 124 women and 97 men aged from 24 to 68 ($M = 47.13$, $SD = 10.05$). The employees' tenure ranged from half a year to 48 years ($M = 18.13$, $SD = 11.96$).

Measures

All scales were translated into Norwegian and then back-translated by a native English speaker. All items were assessed on 7-point Likert scales, ranging from 1=very dissatisfied to 7=very satisfied or 1=strongly disagree to 7=strongly agree.

Satisfaction with HRM practices was captured by the five scales used by Conway and Monks (2008) – measuring staffing, training, career and performance management, autonomy, and communication – and one scale from Vandenberg, Richardson, and Eastman (1999), which measured reward. These scales cover HRM practices broadly and have previously been used in relation to commitment to change (Conway & Monks, 2008). As a result of low factor loadings, one item was deleted from each of the career and performance management and communication scales, and two items were deleted from each of the staffing and training scales. The participants were asked to indicate their level of satisfaction with each HRM practice. Satisfaction with staffing was ultimately represented with two items, including, “The materials and equipment needed to perform your job” ($\alpha = .68$). Training comprised three items, including, “The amount of training that you receive” ($\alpha = .85$). Career and performance management was measured with six items, such as, “The opportunities you have in your job to make full use of your skills and abilities” ($\alpha = .91$). Autonomy was measured with four items, including, “The opportunities that you have to choose your own job assignments” ($\alpha = .93$). Communication was covered with four items, such as, “The information provided to you about how the organization is performing” ($\alpha = .79$). To measure reward, three items from Vandenberg et al. (1999) were reworded to fit with the other scales; a sample item was, “The extent to which you receive recognition and praise reflects how well you perform your job” ($\alpha = .87$).

Commitment to change was measured with the three scales developed by Herscovitch and Meyer (2002), each consisting of six items. The first scale captured affective commitment to change (e.g., “I believe in the value of this change”); the second scale referred to continuance commitment to change, containing such items as, “I feel pressure to go along with this change.”; the third scale pertained to normative commitment to change, measured with such items as, “I would feel guilty about opposing this change.” One item was deleted from each of the continuance commitment scale and the normative commitment scale because of their extremely skewed distribution and low factor loading. Cronbach’s alpha for these scales was .92, .89, and .74, respectively.

Gender (0=women, 1=men) was included as a control variable because it affected continuance commitment to change (Becker, 2005).

The participants in this study provided data on additional variables mainly related to the team and to the leadership in the team. In particular we measured perceived supervisor support (Cole, Bruch, & Vogel, 2006), perceptions of leadership behavior (Purcell & Hutchinson, 2007), team leader coaching and clear direction (Edmondson, 1999), team performance (Hirst, Mann, Bain, Pirola-Merlo, & Richvera, 2004), and job satisfaction (four items, Brayfield & Rothe, 1951). Because these variables neither refer to HRM practices nor to commitment to change, they are beyond the scope of the present paper.

Results

Descriptive statistics and correlations of all the study variables are shown in Table 1. To test the hypotheses that HRM practices are associated with commitment to change, structural equation modeling was performed through Mplus 7.3 (Muthén & Muthén, 2012). Prior to the analysis, the amount of variance between the teams was investigated with intercept-only multilevel models (Hox, 2010), but no significant variance between the teams was found for any of the three dependent variables. This indicates that the team in which a respondent belonged did not matter, and it was, thus, possible to conduct structural equation modeling.

The hypothesized model examined satisfaction with HRM practices as a predictor of commitment to change. In total, three models were estimated. In Model 1, all HRM practices were correlated and related to the three factors of commitment to change (Table 2). In Model 2 (Figure 1), two method factors underlying the negatively worded items in affective and normative commitment to change were added (Tomas & Oliver,

1999). In Model 3 (Figure 2), all HRM practices were aggregated with a second-order factor representing the set of HRM practices; the second-order factor was then related to commitment to change. The model fit was assessed with the root mean square error of approximation (RMSEA) and its confidence intervals, the comparative fit index (CFI), the Tucker–Lewis index (TLI), the standardized root mean square residual (SRMR), and Akaike’s information criterion (AIC) (Schermelleh-Engel, Moosbrugger, & Müller, 2003). An acceptable model fit requires an RMSEA below .08 and confidence intervals close to the RMSEA, a CFI and TLI above .95, and an SRMR below .10. A good fit appears with an RMSEA below .05 and the left boundary of the confidence interval close to 0, a CFI and TLI above .97, and an SRMR below .05. The AIC should decrease from model to model.

Table 1. Descriptive statistics and correlations of all study variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	.44	.50										
2. Staffing	5.00	1.18	-.06	(.68)								
3. Training	4.40	1.40	-.01	.54***	(.85)							
4. Career and performance management	4.28	1.21	-.02	.51***	.56***	(.91)						
5. Reward	4.69	1.20	.02	.35***	.51***	.63***	(.87)					
6. Autonomy	4.79	1.39	.08	.54***	.37***	.58***	.43***	(.93)				
7. Communication	4.26	.99	.03	.43***	.48***	.55***	.48***	.36***	(.79)			
8. Affective C2C	4.35	1.23	-.03	.14*	.19**	.16*	.22**	.27***	.27***	(.92)		
9. Continuance C2C	4.65	1.31	-.17*	-.15*	-.21**	-.25**	-.18**	-.24***	-.19***	-.28***	(.89)	
10. Normative C2C	4.50	.96	-.03	.10	.10	.10	.12	.19*	.11	.27***	.05	(.74)

Note. Cronbach’s alphas are on the diagonal. C2C = Commitment to change. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2. Model fit

	χ^2	df	χ^2/df	RMSEA	Confidence interval	CFI	TLI	SRMR	AIC
Model 1	1373.16	666	2.06	.069	.064-.075	.875	.861	.071	24685
Model 2 with methods factor	1140.24	660	1.73	.057	.052-.063	.915	.905	.068	24464
Model 3 with one HRM second-order factor and methods factor	1210.42	683	1.77	.059	.054-.065	.907	.899	.073	24810

In all models, the RMSEA and its confidence intervals showed an acceptable fit, while the CFI and TLI were below the threshold for acceptable model fit (Table 2). The fit of Model 2, which included correlations among the HRM practices ranging between .41 and .72 ($p < .001$), was superior to the fit of the other models. In Model 2, only autonomy and communication were associated with affective commitment to change. The significant correlations between the HRM practices help the model to adapt to the data, but suppress the relationship between HRM practices and commitment to change that is found in the bivariate correlations. Compared to the bivariate correlations, some regression weights are considerably smaller in Model 2 (e.g., career and performance management – affective commitment to change) or have opposite signs (e.g., communication – continuance commitment to change), indicating the suppressor effect (MacKinnon et al., 2000). In Model 3, the HRM practices show good factor loadings on the second-order factor, and the second-order factor is associated positively with affective and normative commitment to change and negatively with continuance commitment to change (Figure 2). Although Model 2 fits the data best, Model 3 is more

valuable for this study's research interest, owing to good loadings of the HRM practices on the second-order factor and the clear relationship between the second-order factor and commitment to change.

Consequently, the results of both models were interpreted. *H1* posited that the HRM practices of reward, autonomy, and communication are linked to affective commitment to change. This hypothesis is partly supported, as only autonomy and communication are associated with affective commitment to change (Model 2). *H2* tested whether continuance commitment is negatively related to autonomy and communication; this hypothesis fails to receive support (Model 2). *H3* investigated the relationship between communication and normative commitment to change; this hypothesis was not supported (Model 2). *H4*, *H5*, and *H6* assumed that the set of aligned HRM practices is associated with commitment to change. These hypotheses fail to find support with regard to model fit, but the model with the set of aligned HRM practices supports these hypotheses through the second-order factor representing the set of aligned HRM practices and the clear relationship between the second-order factor and commitment to change (Model 3). *H7* suggested that a model with aligned HRM practices achieves a superior model fit. This hypothesis failed to find empirical support, owing to a lower fit in the model with the second-order factor (Model 3). Gender was significantly related to continuance commitment to change, demonstrating that women report higher continuance commitment than men.

In all models, the CFI and TLI failed to reach the threshold for acceptable model fit. We, thus, tested Model 2 without normative commitment to change, as factor loadings were comparably low in this scale. This model showed correlations between the HRM practices and affective and continuance commitment to change similar to those found in Model 2 and reached higher values in the CFI (.928) and TLI (.919); however, it still failed to fulfill the requirements for acceptable model fit.

Figure 1. Model 2 relating satisfaction with HRM practices to commitment to change (with methods factor). C2C = Commitment to change. All HRM practices are correlated ($p < .001$). * $p < .05$. ** $p < .01$.

Figure 2. Model 3 relating a second-order factor of satisfaction with HRM practices to commitment to change (with methods factor). C2C = Commitment to change. *** $p < .001$.

Discussion

Little attention has been paid to the role of HRM practices in organizational change or, more specifically, to the impact of HRM practices on employees' commitment to change (Fugate, 2012). This study used two models to compare the relationships between individual HRM practices and a set of aligned practices to the components of commitment to change. As expected, the set of aligned HRM practices was related positively to affective and normative commitment to change and negatively to continuance commitment to change. When single practices were considered, only communication and autonomy were associated with affective commitment to change. The model with single HRM practices had a superior fit compared to the model with the set of aligned practices, which leads us to conclude that HRM practices provide little support during times of change. By contrast, the model with the set of aligned practices yielded evidence that all HRM practices contribute to employees' commitment to change.

Contribution to Theory

Our results advance the theory and research on the role of HRM practices during organizational change and clarify their relevance for commitment to change. First, our study recognizes that HRM practices utilized in a change situation are beneficial for employees' attitudes towards change. As expected from prior research, the individual practices of communication and autonomy and the set of aligned HRM practices were positively related to affective commitment to change. This result is consistent with earlier research that found HRM practices, particularly communication and autonomy, enhance affective commitment to change (Bouckennooghe, 2012; Conway & Monks, 2008; Hill et al., 2012; Parish et al., 2008; Seo et al., 2012). In line with earlier research (Bouckennooghe, 2012; Parish et al., 2008), the set of aligned HRM practices was negatively associated with continuance commitment to change. The lack of a significant relationship between individual practices and continuance commitment to change, however, corresponds to the findings

of wider research on organizational antecedents of continuance commitment (Bouckennooghe, 2012; Neves, 2011). This study shows that HRM practices, when considered as a system of aligned and interrelated practices, can reduce this type of commitment to change and, thus, provide useful methods for managing change. While the set of aligned HRM practices was significantly related to normative commitment to change, single HRM practices failed to show any effect. Extant research has also found significant and non-significant relationships with normative commitment to change (Bouckennooghe, 2012; Hill et al., 2012; Parish et al., 2008). Overall, the study results provide evidence that the three components of commitment to change are associated with employees' satisfaction with HRM practices.

Second, our study yields an important contribution to the existing research and corresponding arguments around systems of aligned HRM practices, although it does not allow us to draw a final conclusion. On the one hand, the model with individual HRM practices achieved the best fit, and this model is, thus, best adapted to the data in the study. Only two of the many regression weights were, however, significant, suggesting that HRM practices play a limited role in commitment to change. Because of confounding effects, there is, however, doubt that the model represents the true relationships between the variables (MacKinnon et al., 2000). The use of individual HRM practices as predictors in other studies also produced a pattern of significant and non-significant relationships (Conway & Monks, 2008; Giauque, 2014; Giauque et al., 2010; Kinnie et al., 2005). On the other hand, the use of a second-order factor of HRM practices led to clear relationships between these practices and the components of change commitment, and good loadings of the single practices on the HRM factor, but an inferior model fit. The second-order factor takes into account that HRM practices complement and constrain one another, in line with common assumptions (Delery & Doty, 1996; Lepak & Shaw, 2008). However, it does not allow us to differentiate the strengths of the relationships between each HRM practice and each component of commitment to change. Despite the better fit of the model with single practices, only the model with the set of aligned practices allows us to interpret the results in terms of the relevance of HRM during change. It was, hence, useful to conceptualize HRM practices as a set of aligned practices to account for interrelations between single practices.

Third, the use of all components of commitment to change allowed us to differentiate between positive and negative effects of HRM practices, and the results were in line with expectations (Bouckennooghe, 2012; Conway & Monks, 2008; Parish et al., 2008). Affective commitment to change can be considered the most relevant component of change commitment, because it shows a positive and supportive attitude towards the change, leading to positive behavior (Bouckennooghe et al., 2015). Continuance commitment to change is the least welcome in an organization, because employees are only committed to preventing negative consequences or costs incurred through their reluctance to support the change. Consequently, employees are not motivated to invest more than is required to keep their job and status. Other studies have also shown lower estimates for normative change commitment when compared to affective change commitment (Bouckennooghe, 2012; Hill et al., 2012; Parish et al., 2008; Seo et al., 2012). Normative commitment is usually explained through the need to reciprocate: that is, employees commit themselves due to earlier support the organization has provided (Herscovitch & Meyer, 2002). This effect of reciprocity proved to be comparably weak in this organization.

In sum, the study provides evidence that aligned HRM practices are supportive in implementing organizational change and can be regarded as one of the useful measures for managing change. It can be considered beneficial that these practices enhance affective and normative commitment to change while reducing continuance commitment to change.

Limitations and Suggestions for Future Research

These findings are limited by aspects of our methodology and suggest numerous possible directions for future research. The cross-sectional nature of the study limited the exploration to a current state and, thus, could not provide a causal explanation for the development of employee attitudes and reactions. The model development followed the predominant view that HRM practices affect employee attitudes (Jackson, Schuler, & Jiang, 2014). Measuring satisfaction with HRM practices as employee perceptions, however, does not preclude that this perception is influenced by the employees' commitment to change. HRM practices

captured at an organizational or departmental level are unbiased by employee attitudes, but only represent the set of implemented HRM practices. These are not necessarily available to all employees (Clinton & Guest, 2013). Future research should, thus, more often combine organizational and employee perceptions of HRM practices to consider aspects of implementation and actual availability for employees.

Data collection took place one year after the change when many attitudes and reactions had already settled. The length of the period between the change and the survey might also have affected the employees' attitudes, depending on the outcomes of the change for each individual employee. Future research should concentrate on a longitudinal investigation of the relationships in this model, potentially yielding richer information regarding the causes and reactions before, during, and after implementation of a change.

Although the final scales show good reliability, some of the items failed to load on their respective factor. In the affective and normative commitment to change scales, a remedy for the negatively worded items was found in adding a methods factor for these items (Tomas & Oliver, 1999). In each of the continuance and normative commitment to change scales, one item had to be excluded because the majority of participants agreed with it, causing a highly skewed distribution. HRM practices were previously used in the studies of Conway and Monks (2008) and Vandenberg et al. (1999), but had not previously been tested in a confirmatory approach. As the factor loadings of some items (staffing, training, career and performance management, and communication) fell below expectations, they were excluded from the measurement model. This indicates that the measurement of HRM practices could still be improved to attain consistent and reliable scales.

Normative commitment to change was not significantly associated with individual HRM practices. This finding is in line with earlier research that showed few significant relationships between HRM practices and normative commitment to change (Bouckennooghe, 2012; Hill et al., 2012; Parish et al., 2008), but stronger effects for organizational antecedents (e.g., trust in management, perceived supervisor support). Potentially, factors enhancing normative commitment to change could be sought outside the realm of HRM, for example, in the field of supervision and management.

The model with the second-order factor failed to reach an acceptable model fit, but it did illustrate the confounding effects. Future research should explore superior options to represent the system of HRM practices, or the level of satisfaction with these, through covering a larger number of HRM practices (e.g., 9 to 12 practices) that can be arranged in a few bundles (e.g., ability, motivation, opportunity, Jiang, Lepak, Hu, & Baer, 2012). The use of individual HRM practices as simultaneous predictors should be avoided.

When interpreting the results of this study, boundary conditions, such as the type of change and the development of the change, need to be considered. The organization studied experienced a reorganization, but demands on HRM practices and their effectiveness presumably vary with the type of organizational change. Organizational change has, however, not been considered as a contingency of HRM practices (Jackson et al., 2014) and extant research has either studied one type of change (Hill et al., 2012) or failed to distinguish different types of change in the sample (Bouckennooghe, 2012). Future research should, thus, regard HRM practices in different types of change, such as downsizing, mergers, and cultural or technological change, to identify their fit to each type of change. Further, employees' commitment to change or their attitudes towards change, more generally, can be expected to fluctuate during a change process. Depending on the stage of the process and the support provided to employees, commitment can reach higher or lower levels. The relationship between HRM practices and commitment to change, thus, might also vary during the course of a change. The cross-sectional survey in our study, as well as existing research, fails to capture development and fluctuation. In the future, more attention should be paid to longitudinal designs focusing on the development of commitment to change and aiming to predict this development through HRM practices.

Practical Implications

This study has some practical implications for organizations implementing change. HRM practices convey the message that the employees are taken care of and will cope with change successfully. To achieve this goal, organizations should carefully plan the combination of HRM practices that could support change.

When HRM practices are conceived as a system with interrelated practices, a larger number of practices should, preferably, be established because each practice will contribute its share to employees' commitment to change. New change-related practices should be attentively designed and implemented so that they enhance the change, while existing ones (e.g., forms of training) should be valued if they facilitate the change.

In line with previous research (e.g., Parish et al., 2008), communication and autonomy are associated with affective commitment to change. Considerate communication from the management and supervisors and sufficient autonomy in the employees' work tasks are, hence, basic requirements. In addition, it is reasonable to implement practices that are carefully aligned with one another and with the goals of the change. To enhance affective and normative commitment to change and reduce continuance commitment to change, it is also important to alleviate pressure, to reduce employees' fear of losses due to the change, and to stimulate a moral obligation to support the change. It is, thus, important for organizations to communicate the value of HRM practices to their employees.

Ethical statement: At the time this research was conducted, no institutional approval or ethics approval was required in Norway because the data were collected anonymously and did not include health or personality topics. In line with the guidelines of the American Psychological Association explicit informed consent was not sought for because this research was limited to job- and organization-related factors in an organizational setting. Prior to participation in the data collection, participants were informed about the goals of the study and the following aspects of data collection: (1) participation is voluntary, (2) implicit consent to participate is given when starting to fill-in the questionnaire, and (3) participation can be terminated at any time without any reason or negative consequences for the participant. We ensured that the data is not passed on to the employer and that any data analysis only refers to the complete data set and related differential and descriptive statistics, thus not disclosing individual data.

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