

UNIVERSITY OF TWENTE

**Effects of a consistently
perceived HRM-system: the
models of Kelley and Bowen
& Ostroff examined**

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Abstract

The relationship between HRM and organizational performance is often studied. Recently, research of the link between HRM and organizational outcomes is influenced by the article from Bowen and Ostroff (2004). The attribution theory from Kelley (1973) is useful for identifying features that give an explanation for the unraveling of the black box. The aim of the current study was to test with a scenario research and a questionnaire (n=354 collected within four organizations) the moderating effects of consistency and uncertainty orientation in the relationship between HRM and affective commitment. As a result, this study gives a better insight in how employees individually perceive HRM practices and what kind of attitude or behavior they will display when these practices are consistent. The role of uncertainty orientation was also examined, because attributions can, next to situational factors, also be influenced by personal factors. The research question was: How is the relationship between HRM and affective commitment influenced by consistency and uncertainty orientation? Results showed that only the content of HRM was related to affective commitment. No moderating effects were found for consistency and uncertainty orientation.

Introduction

In the last decades, there is a pressure on human resources departments and line managers in organizations to show the added value of human resource management [HRM] to organizational results (Huselid, 1995) and therefore a lot of research has been conducted to the link between HRM and organizational outcomes (Hailey, Farndale & Truss, 2005). This link is also known as the 'black box' between HRM and performance (Bowen & Ostroff, 2004) and there are two approaches in the literature that explain this link: the content approach and the process approach.

The content of HRM refers to the specific set of HRM practices and policies (e.g. recruitment and selection) and assumes that various types of HRM practices as bundles interact to improve employees' work attitudes, ultimately contributing to positive employee behaviors and organizational effectiveness (Sanders, Dorenbosch & de Reuver, 2008).

Recently is it recognized that next to the content of HRM, the process of HRM (the way that the content of HRM is perceived by employees) is also important in explaining the link between HRM and employee attitudes and behaviors (Bowen & Ostroff, 2004). Employees can perceive the same environment differently and perception drives behavior (Bowen & Ostroff, 2004). Bowen and Ostroff (2004) shifted the focus from the content to the process of HRM. They proposed that HRM practices can be viewed as a signaling function by sending messages that lead to employee perceptions, which in turn lead to attitudes and behaviors. Desired attitudes can therefore be achieved if the HRM policy is clearly perceived and interpreted as intended by the organization.

Bowen and Ostroff (2004) argue that the covariation theory from Kelley (1973) is useful for identifying features that will allow for messages to be received and interpreted uniformly among employees, which in turn can lead to desired attitudes and behaviors. According to the

covariation theory, individuals make attributions about cause-effect relationships depending on the degree of distinctiveness (the event-effect is highly observable), consistency (the event-effect presents itself the same across modalities and time) and consensus (there is agreement among individuals views of the event-effect relationship).

Consistency seems to be an important feature, because if *HR practices reinforce one another synergistically, they are more likely to be viewed as a causal bundle having distinctive effects ultimately attributable to management across contexts and time* (Li, Frenkel & Sanders, 2011: 1827). Bowen and Ostroff (2004) further report that for a correct interpretation and influence on behavior, consistency is needed. HRM policies of organizations nowadays change regularly, so different signals in time are sent to employees. Also, the various HR practices are often not linked, causing contradicting perceptions from employees (Wright, McMahan, & McWilliams, 1994). When an HRM system is perceived as high on consistency, it is likely that this contributes to firm performance by motivating employees to adapt desired attitudes and behaviors that, in the collective, help achieve the organizations' strategic goals (Bowen & Ostroff, 2004: 204).

An example of a desired attitude is affective commitment, what is reflected in the extent to which an employee can identify himself or herself with the company, the degree of emotional attachment and the level of participation. It is an important variable for an organization to be effective and to achieve competitive advantage (Allen & Meyer, 1990; Meyer & Allen, 1991). Past research showed that it has an impact on job performance, turnover, pro-social behavior and absenteeism (Cohen, 2000).

Several studies showed direct relations (main effects) between consistency and affective commitment. For example, Sanders *et al.* (2008) showed that perceptions of consistency are positively related to affective commitment in the organization. A study from Dorenbosch, de

Reuver and Sanders (2006) showed that perceptions of employees of consistent HRM practices are positively related to affective commitment to the organization. So far, process and content variables are only studied as main effects. The combination of content and process has not yet been investigated. Consistency is not studied before as a moderator in the relationship between the content of HRM and affective commitment. Bowen and Ostroff (2004) proposed that both content and process must be taken into account to achieve organizational performance and that high consistency is required to allow that the HRM content is correctly perceived. A part of the black box can therefore possibly be unraveled if content and process are both taken into account.

Properties of employees can also give an explanation for employee behavior. These properties can be cultural variables, which can also be responsible for the way employees respond to HRM systems or policies (Aumann & Ostroff, 2006). An example of a cultural variable is uncertainty avoidance, which deals with the extent to which people feel the need to avoid ambiguous or uncertain situations and manage such circumstances by providing explicit rules and regulations (Hofstede 1980). Uncertainty avoidance is a trait on the national level, but the focus in this study is on employees' perceptions and differences on the individual level, which in this case is uncertainty orientation (Shuper, Sorrentino, Otsubo, Hodson & Walker, 2004). When HRM has clear rules and guidance, employees will possibly display more affected committed behaviors, because clarity about HRM practices can lead to desired employee behavior (Paauwe & Boselie, 2005). Also, when employees are on low uncertainty orientation, they can make their own interpretation of HRM policy and do not care about rules from HRM. They will therefore be of negative influence on affective commitment. Uncertainty orientation and consistency are therefore studied as moderators in the relationship between the content of HRM and affective commitment. This will be done in two studies: an experimental study and a field study. This is

done in order to take into account both the advantages of an experimental study (cause and effect relations, detailed and concrete stimuli and assignment to conditions) and the advantages of a field study (correlations in business settings can be showed to describe and predict behavior and therefore more external validity).

The research question is: How is the relationship between HRM and affective commitment influenced by consistency and uncertainty orientation?

Theoretical framework

Content of HRM: control model versus commitment model

There are two dominant streams of research concerning the content of HRM: the control model and the commitment model. Both approaches can lead to increased organizational performance (Huselid, 1995). The control model is derived from Taylor's scientific management approach and states that human beings are not capable of self discipline, that they are lazy and that money is an important incentive (Khatri, Baveja, Boren & Mammo, 2006). According to this approach, employees should be monitored with control mechanisms to ensure that they behave consistently with organizational objectives. Employees are therefore not committed to their work; there is low morale and a climate of mistrust. Employee turnover and absenteeism are high.

The commitment model is derived from the Human relations model and states that human beings are capable of self discipline, so they can be committed and this model is therefore based on trust (Khatri *et al.*, 2006). People commit to the organization if they are trusted and allowed to work autonomously. Employees are therefore actively engaged and committed to their work. There is a high morale, employees cooperate and trust each other. Employee turnover is low. Examples of commitment-based HRM practices are more than market-based pay, open

communication, extensive training and education, functional flexibility, career ladders, greater job responsibility, and emphasis on the management of quality (Baron & Kreps, 1999).

Khatri *et al.* (2006) argue that in the dynamic business environment nowadays, commitment-based management is the norm if organizations want to survive. Organizations need employees that are self regulating and who can cope with a changing environment. Next to that, people work best when they are fully committed to the organization. Employees who are committed to the organization, and who trust their managers and the organization, have the potential to be self-regulating rather than needing to be controlled by sanctions and external pressures. They are more likely to be flexible and adaptable, both of which are crucial employee characteristics in times of change. Hence, several scholars note that a gradual shift from control to commitment is taking place in a variety of organizations and industries (Khatri & Budwar, 2002)

Both High Commitment Management and High Commitment HRM describe the mechanism that is aimed at paying attention to employees, with as a result commitment from employees. These commitment-based approaches influence employee behaviour by creating opportunities for each employee to give their best performance for the organization (Boxall & Purcell, 2008). Commitment-based management and HRM can therefore lead to more affective committed behaviors, because it increases employee commitment with organizational goals, participation and involvement (Agarwala, 2003).

Kelley's covariation theory

Attribution theories consider how people make judgements about the causes of events in their lives (Heider, 1958). According to Heider (1958) attribution theories are based on social perception (do you attribute something to the person or to the situation). Attributions can be distinguished between attributions about an observation (configuration) or attributions across

multiple observations over time (covariation). The theory from Kelley (1973) addresses covariation: a principle of attribution theory holding that people attribute behavior to factors that are present when a behavior occurs and absent when it does not. Events in a person's environment can be caused by persons, entities (things in the environment) and time (situations). To determine which of these factors caused an event, three criteria are used: consensus with another person, consistency over time and modalities and distinctiveness of the person responses to other stimuli. Kelley (1973) states that in a situation when there is high consistency, there will be an object attribution. When consistency is low, an attribution is made to passing circumstances, such as miscommunication. In a study which tests the covariation theory from Kelley (Orvis, Cunningham & Kelley, 1976) it is assumed that attributions are widely useful and usually adequate explanations for several types of behavior, including for example employee behavior.

Employees use HRM messages as communication signals from management to make sense of their work situation (Bowen & Ostroff, 2004). Commitment-based management is found to have positive effects on organizational outcome measurements, such as worker attitudes (Gould-Williams, 2004). If an organization applies commitment-based management, this can lead to affective committed behaviors, because employees may be more emotionally involved with an organization when there is commitment about the content of HRM. It is also important that these HRM messages are consistent in modalities and time, so that employees perceive messages from HRM the same. So when HRM for example applies a consistent reward and benefits procedure in time, with aligned instruments (modalities), people make an object attribution to HRM. This can lead to affective committed behaviors that benefit an organization, because consistency can lead to a feeling that you are fair treated and thereby people are willing to do something extra for

their organization. If the different instruments are not aligned (e.g. there is a lack of distributive justice), then people will make a context or person attribution. This can lead to less affective committed behaviors, because there can be confusion and people are not felt treated with respect.

Bowen and Ostroff

According to Bowen and Ostroff (2004), consistency holds that the event effect relation is consistent over time, people, and contexts: instrumentality, validity, and consistent HRM messages.

Instrumentality refers to: *establishing an unambiguous perceived cause-effect relationship in reference to the HRM system's desired content-focused behaviors and associated employee consequences* (Bowen & Ostroff, 2004: 205). Employees are more likely to perceive the instrumentality when behavior and outcomes are closely linked in time (contiguity causation attribution principle) and when they are administered consistently over some time schedule (priority causation attribution principle). Validity is *the extent to which message receivers perceive the message as valid* (Bowen & Ostroff, 2004: 206). When an HRM practice is implemented and advertised to have certain effects, and then does not do what it was intended to do, the message sent to employees is contradictory, and employees are left to develop their own idiosyncratic interpretations. The third dimension is consistent HRM messages (Bowen & Ostroff, 2004: 207). A consistent pattern of instrumentalities across HRM practices, time, and employees that link specific events and effects further enhances the likelihood that desired specific behaviors will be displayed (Delery, 1998). The dimensions instrumentality, validity and consistent HRM messages have in common that they all refer to consistency of HRM messages and message senders in time or modalities. For example, instrumentality refers to the actual influence on behavior of employees. For this, consistency is important. Validity is the case when

HRM practices achieve their goal for what they are intended. Therefore consistency is also important. Consistent HRM messages are the case when the components of HRM policies are linked over time and are aligned with each other. So the three dimensions share some theoretical overlap.

Bowen and Ostroff (2004) argue that consistency is needed for employees to interpret HRM messages correctly and show accordingly desired behaviors. Research shows that if people have to make attributions, they mostly follow the logic from the covariation theory (Cheng & Novick, 1990). So if consistency is high, employees share perceptions regarding the content of HRM and will attribute this to the entity HRM, which can lead to affective committed behaviors. If consistency is low, employees will make an attribution to passing circumstances. It is therefore expected that consistency has a strengthening effect on the relationship between HRM and affective commitment. In this research, the moderating effects of consistency are studied in an experimental study (Kelley) and a field study (Bowen and Ostroff). Therefore, it can be expected that:

H1: The positive relationship between HRM and affective commitment is strengthened by consistency.

Uncertainty orientation

Culture refers to a system of socially created and learned standards for perception, cognition, judgment, or behavior shared by members of a certain group (Tata, Fung & Wu, 2003). Hofstede's (1984) framework distinguishes between the values of individualism, power distance, uncertainty avoidance and masculinity. Uncertainty avoidance deals with the extent to which people feel the need to avoid ambiguous or uncertain situations and manage such circumstances

by providing explicit rules and regulations; it refers to people's acceptance of varying situational demands, openness to change, and propensity to take risks (Hofstede, 1980). Uncertainty avoidance is studied often in organizations and can therefore also be applied to employees (Hofstede, 1984). Donthu and Yoo (1998) found that individual cultural values have the same dimensionality as in Hofstede's (1980) typology of national level culture. Since this study is focusing on the individual employee level, uncertainty avoidance will be measured as uncertainty orientation on the individual level (Shuper *et al.*, 2004).

Employees who have a high uncertainty orientation may value the structure of policies and procedures. This may be manifested in increased clarity of reporting relationships, procedures and systems so as to reduce employees' feelings of anxiety associated with unknown situations (Randall, 1993). Uncertainty orientation, for example, influences organizations to use more structured selection practices (Stohl, 1993). Unexpected changes in procedures can therefore result in ambiguity and stress and may be perceived as threatening by employees who feel the need to avoid ambiguous situations. Thus, it seems that uncertainty orientation is a related concept to consistency. For example, the article from Tata *et al.* (2003) showed that uniformity in implementation of procedures across individuals and over time (corresponding to the justice principle of consistency), is likely to be perceived as fairer in high uncertainty avoidance cultures. Employees high in uncertainty orientation, look for structure in organizations and relationships that are clearly predictable (Hofstede, 1984).

It is assumable that culture can influence employees' perceptions of these principles of consistency. Aumann and Ostroff (2006) stated that cultural variables can be responsible for the way employees respond to HRM systems or policies, so culture can influence perceptions of consistency. For example, the article of Li *et al.* (2011) showed that consistency has a positive

relationship with intention to quit. This apparently surprising conclusion is attributed to the Chinese culture, because Chinese people value written rules and regulations less than rules from their leaders. People, who value rules, will have a high degree of uncertainty orientation. So in cultures high in uncertainty orientation, it may be important that there are consistent HRM practices.

National cultural values at the individual level can be predictors of employee commitment (Fischer & Mansell, 2009), but there is hardly any research that analyses the moderating effect of culture values on affective commitment. Randall (1993) stated that organizational commitment may be lower in countries with higher uncertainty orientation levels, because uncertainty orientation relates to desire for rules and regulations which should result in preference for organizational loyalty and lower levels of affective commitment. If there is commitment about HRM and there are established rules, employees know what is expected from them. Employees are in turn more committed to the organization, because the organization has a clear and open communication to employees by the clear rules that exist. Therefore, the moderating effect of uncertainty orientation as a personal cultural value is studied in the current study.

H2: The positive relationship between HRM and affective commitment is strengthened by uncertainty orientation.

Method

Sample

The sample included a total of 354 participants. Each respondent filled in a questionnaire with an experimental part and a field study part, so the sample is the same for both parts of the study. Totally there were 261 (75,2%) women who participated. The participants were 41.3 years of average age (SD= 11.7). Seventeen (4,9%) employees completed primary school, 136 (38,4%) vocational education, 156 (45,1%) had a bachelor degree, 37 (10,7%) employees graduated at a master level. 158 (45,3%) of the participants had a full time appointment, the mean tenure in the organization was 11.9 years (SD=10.3) and the mean tenure in the function was 7.9 (SD=8.6). 57 (16,5%) respondents had a executive function.

Procedure

Four companies were willing to participate (response rate 6,5%). The first company is an institution for people with physical disabilities with 141 respondents (response rate 15,7%). The second company is a hospital with 184 respondents (response rate 5,6%) spread across three locations. The third company is an online gaming company, including seventeen respondents (response rate 42,86%). The last company is a municipality, with thirteen respondents (response rate 86,7%). The surveys were randomly distributed via e-mail and intranet to most employees at each company. Because some Chinese employees spoke better English than Dutch, the Dutch questionnaire was translated into English. Only employees without an e-mail address of the organization received a paper version. Completed paper questionnaires were returned first to the human resource department and then to the researchers. The questionnaire was introduced with an invitation letter which contained information about purpose of the research. In this

information the confidentiality of the research was mentioned and the importance of the research investigation. After two weeks, a reminder was sent for the questionnaires with a deadline for filling it in. The questionnaire consisted of 97 statements and seven demographic questions.

Measurements

For the items of all scales, a 4-point Likert scale was used. Response items ranged from 1=totally disagree to 4=totally agree. Both in the experimental part and the field study part of the research the dependent variable affective commitment was used.

Affective commitment was used twice, to measure the effects of the field study and the experimental part from the study. Affective commitment was measured for both studies with six items that captured employees' commitment to their organization (organizational commitment with two questions from the organizational commitment scale from Meyer, Allen & Smith, 1998), as well as their satisfaction to their work (pride in work with two questions derived from McKnight, Ahmad & Schroeder, 2001) and affective commitment to work with two questions which are taken from the affective commitment to the work scale from Meyer, Allen and Smith, 1998. After a reliability and factor analysis, one item from pride in work (*I feel ashamed when I do not perform well in my job*) and one item from organizational affective commitment (*I think I can get just as attached to any other organization as to this organization*) were removed. The remaining four items were combined into one factor with a moderate reliability of $\alpha = .69$ for the field study part and a sufficient reliability of $\alpha = .78$ for the experimental part.

Study 1: experimental study. The experimental part of the study was assessed by a scenario. This stimulus describes HRM within a fictitious company, see Appendix A. After reading the scenario, the respondent was presented with a perception check about High Commitment

Management (Zhang, Tsui, Song, Li & Jia, 2008); so if the respondent was able to put him or herself into the situation of the scenario. The scale consists of seven items. Examples are: “*My company treats each employee fairly*” and “*My company encourages employees to participate in decision making*”. After a reliability and factor analysis, the item “*My company respects employees’ self dignity*” was removed. The reliability of this scale then turned out to be sufficient ($\alpha = .78$). After the perception check, some additional information was given about the HRM department of the fictitious company. In this part, manipulations were created to measure the perception of low versus high consistency, see Appendix B. Thereafter, a manipulation check was introduced. An example item is: “*This organization has a stable personnel policy*”. 111 (31,4%) participants filled in the version with high consistency, 243 (68,7%) participants filled in the low consistency version¹. The difference between low (context and person attribution) $M = 2.31$ and high (object attribution) $M = 2.59$ consistency was significant ($t(354) = 11.62, p \leq .01$). Reliability was found sufficient for the manipulation check; $\alpha = .72$ for the high consistency version versus $\alpha = .78$ for the low consistency version.

Study 2: field study. The content of HRM in this part of the study is measured by High Commitment HRM with nine questions (Sanders *et al.*, 2008). Examples are: “*Together with me, a clear career planning is made*” and “*This company pays much attention to training and education*”. This scale was found sufficient reliable ($\alpha = .70$). Consistency was assessed by a six-item scale with the concepts instrumentality, validity and consistency (Delmotte, 2008). To shorten the questionnaire, two items from every subscale were taken. Examples of items are:

¹ Besides consistency, consensus and distinctiveness information was used to create manipulations of object, person and context attributions. The versions of the questionnaires that manipulated low consistency (person and context attributions) have been merged.

“*Personnel management does not succeed in actively changing employees’ behavior*” (reverse coded) and “*In this organization, personnel practices are changing every other minute*” (reverse coded). The separate scales had a reliability of $\alpha = .67$ for instrumentality, $\alpha = .71$ for validity and $\alpha = .68$ for consistency. After a reliability and factor analysis, it was decided that the separate scales (which also share some theoretical overlap) will be combined into one consistency scale, with a sufficient reliability of $\alpha = .81$.

Uncertainty orientation was measured with the five item scale from Ang, Van Dyne and Begley (2003). An example question is: “*I prefer structured work*”. The scale turned out to be sufficient reliable ($\alpha = .78$).

Analysis

Missing data were examined. A confidence level of alpha .01 was utilized. The tests for the hypotheses were assessed by using linear regression. To examine if the moderator effects were present, a centralized product variable was made. In a stepwise regression analyses, the control variables gender and organization were first entered in model one, second the standardized moderator and independent variables were entered in model two. In the third step, the product variable of the moderator and independent variable were entered in model three to check if there is a moderator effect (Aiken & West, 1991).

Gender was chosen as a control variable, because this variable significantly related with most of the (in) dependent variables. In addition, organization was chosen as a control variable, because this variable had a significant influence on the dependent variables.

Results experimental study

Descriptive statics and Correlations

The means, standard deviations and correlations for the variables included in this study are presented in Table 1.

Table 1. Means, standard deviations and correlations between variables experiment

	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Gender (1=male)	1.75	.43											
2. Age	41.24	11.69	-.23*										
3. Education (0=primary school)	3.62	.74	-.07	.03									
4. Organization	.72	.71	-.17*	.14*	.22*								
5. Contract (1=fulltime)	1.55	.50	.45*	-.01	-.07	-.18*							
6. Tenure organization	11.92	10.32	-.09	.60*	-.09	.07	-.04						
7. Tenure job	7.90	8.64	-.03	.43*	-.05	.01	.06	.48*					
8. Executive (1=yes)	1.84	.371	.21*	-.14	-.22*	-.05	.24*	-.06	.01				
9. High Commitment Management	2.86	.48	.06	-.08	-.15	-.17*	.08	.01	.05	.02			
10. Consistency (0=low)	.65	.48	.05	.04	.01	-.03	-.01	.01	.11	-.02	.05		
11. Affective Commitment	2.83	.49	.10	-.06	-.13*	-.09	.06	.01	.02	-.02	.22*	.41*	
12. Uncertainty orientation	2.48	.45	.03	-.23*	-.22*	-.08	.01	-.09	-.00	.11*	.24*	.08	.11

* = p<.01

As can be seen in Table 1 on the foregoing page, there was a correlation between High Commitment Management and affective commitment ($r = .22, p \leq .01$) and between consistency and affective commitment ($r = .41, p \leq .01$). Next to that, High Commitment Management had a positive relation with uncertainty orientation ($r = .24, p \leq .01$). The control variables showed that High Commitment Management was related to organization ($r = -.17, p \leq .01$). Next to that, affective commitment was negatively related to education ($r = -.13, p \leq .01$). Further, uncertainty orientation was negatively related to age ($r = -.23, p \leq .01$) and education ($r = -.22, p \leq .01$) and positively related to executive function ($r = .11, p \leq .01$).

Test of Hypothesized models

In Table 2, the results for hypothesis 1 and 2 for the experimental part of the study were presented. Women scored significantly higher than men on the dependent variable affective commitment ($M_{\text{women}} = 2.86, M_{\text{men}} = 2.75$). The dummy variable for gender was therefore coded as (1=women, 0=men). The mean for affective commitment from the institution for people with physical disabilities was significantly higher than the mean on affective commitment from the other organizations ($M_{\text{physicaldisabilities}} = 3.10, M_{\text{hospital}} = 2.89, M_{\text{onlinegaming}} = 2.75, M_{\text{municipality}} = 2.71$). The dummy variable for organization was therefore coded as (1=physical disabilities, 0=other organizations).

Hypothesis 1 stated that the positive relationship between HRM and affective commitment is strengthened by consistency. The relationship between High Commitment Management and affective commitment was significant ($\beta = .09, p \leq .01$). However, consistency did not moderate the relation between High Commitment Management and affective commitment ($\beta = .00, p =$

.94). Also, consistency had not a significant positive direct effect on affective commitment ($\beta = .00, p = 1.00$).

Hypothesis 2 stated that the positive relationship between HRM and affective commitment is strengthened by uncertainty orientation. Again, the relationship between High Commitment Management and affective commitment was significant ($\beta = .08, p \leq .01$). However, there was not a significant main effect of uncertainty orientation on affective commitment ($\beta = .05, p = .96$). Next to that, there was no significant moderator effect of uncertainty orientation on the relationship between High Commitment Management and affective commitment ($\beta = .04, p = .14$).

Table 2. Results of regression analyses experimental study with High Commitment Management as dependent variable and consistency and uncertainty orientation as moderator variables (n = 344)

	Affective commitment with consistency as moderator			Affective commitment with uncertainty orientation as moderator		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender	.09	.09	.09	.08	.04	.04
Organization	.08	.05	.05	.09	.09	.09
High Commitment Management		.09*	.09*		.08*	.07*
Consistency		.00	.00			
Uncertainty orientation					.05	.04
High Commitment Management * consistency			.00			
High Commitment Management * uncertainty orientation						.04
Constant	2.73	2.75	2.75	2.73	2.75	2.74
Variance	.02	.05	.05	.02	.06	.06
FChange	.02	.03	.00	.02	.04	.00

Discussion

In the experiment which tests hypothesis 1 and 2, only direct effects of High Commitment Management were found. In an experiment, cause and effect relations can be showed, unlike in a field study (Kassin, Fein & Markus, 2008). In a field study, judgments required of respondents are often too abstract. A possible solution is to make the stimulus presented to the respondent as concrete and detailed as possible. Scenario or vignette research is proposed as a means of doing this (Alexander & Becker, 1978). Another advantage of this research is that respondents can be assigned to conditions (high versus low consistency). However, it is important to test the hypotheses also in a field study. In a field study, correlations in business settings can be showed to describe and predict behavior (Kassin, Fein & Markus, 2008). Therefore, field studies have more external validity, because people respond in a survey to their own real-life situation.

Results field study

Descriptive statics and Correlations

The means, standard deviations and correlations for the variables included in this study are presented in Table 3. High Commitment HRM was related to consistency ($r = .47, p \leq .01$) as well as to affective commitment ($r = .37, p \leq .01$). Also, High Commitment HRM had a positive relation with uncertainty orientation ($r = .15, p \leq .01$). The control variables showed that High Commitment HRM was positively related to gender ($r = .14, p \leq .01$) and negatively related to age ($r = -.13, p \leq .01$), education ($r = -.12, p \leq .01$) and organization ($r = -.20, p \leq .01$). Consistency was negatively related to age ($r = -.24, p \leq .01$), organization ($r = -.30, p \leq .01$), tenure organization ($r = -.16, p \leq .01$) and tenure job ($r = -.12, p \leq .01$). Uncertainty orientation was negatively related to age ($r = -.23, p \leq .01$) and education ($r = -.22, p \leq .01$).

Table 3. Means, standard deviations and correlations between variables field study

	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Gender (1=male)	1.75	.43											
2. Age	41.24	11.69	-.23*										
3. Education (0=primary school)	3.62	.74	-.07	.03									
4. Organization	.72	.71	-.17*	.14*	.22*								
5. Contract (1=fulltime)	1.55	.50	.45*	-.01	-.07	-.18*							
6. Tenure organization	11.92	10.32	-.09	.60*	-.09	.07	-.04						
7. Tenure job	7.90	8.64	-.03	.43*	-.05	.01	.06	.48*					
8. Executive	1.84	.371	.21*	-.14	-.22*	-.05	.24*	-.06	.01				
9. High Commitment HRM	2.43	.42	.14*	-.13*	-.12*	-.20*	.05	.04	-.01	.10			
10. Consistency	2.55	.41	.10	-.24*	-.07	-.30*	.03	-.16*	-.12*	.05	.47*		
11. Affective Commitment	2.96	.48	.11	-.08	-.12	-.25	.08	.06	.07	.04	.37*	.28*	
12. Uncertainty orientation	2.48	.45	.03	-.23*	-.22*	-.08	.01	-.09	-.00	.11	.15*	.14	.11

*= p<.01

Test of Hypothesized models

In Table 4, the results for hypothesis 1 and 2 for the field study part of the study were presented. Women scored significantly higher than men on the dependent variable affective commitment ($M_{\text{women}} = 2.99$, $M_{\text{men}} = 2.88$). The dummy variable for gender was therefore coded as (1=women, 0=men). The mean for affective commitment from the institution for people with physical disabilities is significantly higher than the mean on affective commitment from the other organizations ($M_{\text{physicaldisabilities}} = 3.10$, $M_{\text{hospital}} = 2.89$, $M_{\text{onlinegaming}} = 2.75$, $M_{\text{municipality}} = 2.71$). The dummy variable for organization was therefore coded as (1=physical disabilities, 0=other organizations).

Hypothesis 1 stated that the positive relationship between HRM and affective commitment is strengthened by consistency. Table 4 on the next page showed that there was a significant positive main effect of High Commitment HRM on affective commitment ($\beta = .17$, $p \leq .01$). Next to that, consistency had no direct effect on affective commitment ($\beta = .02$, $p = .43$). Also, the relation between High Commitment HRM and affective commitment was not strengthened by consistency ($\beta = .02$, $p = .42$). Further, the control variable organization was significant ($\beta = .23$, $p \leq .01$). It appeared that the organization for people with physical disabilities had a stronger link between High Commitment HRM and affective commitment.

Hypothesis 2 stated that the positive relationship between HRM and affective commitment is strengthened by uncertainty orientation. As can be seen in Table 4, there was also significant positive main effect of High Commitment HRM on the dependent variable affective commitment ($\beta = .02$, $p \leq .01$). However, there was no significant main effect of uncertainty orientation on affective commitment ($\beta = .15$, $p = .96$). Next to that, there was no significant moderator effect of uncertainty orientation on the relationship between High Commitment HRM and affective

commitment ($\beta = .02, p = .27$). Further, the control variable organization is significant ($\beta = .06, p \leq .05$). It appeared that the organization for people with physical disabilities had a stronger link between High Commitment HRM and affective commitment.

Table 4. Results of regression analyses field study with High Commitment HRM as dependent variable and consistency and uncertainty orientation as moderator variables

	Affective commitment with consistency as moderator (n = 337)			Affective commitment with uncertainty orientation as moderator (n=344)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender	.07	.06	.06	.23	.11	.11
Organization	.23*	.09	.09	.06*	.06	.06
High Commitment HRM		.17*	.17*		.02*	.02*
Consistency		.02	.03			
Uncertainty orientation					.15	.15
High Commitment HRM * consistency			.02			
High Commitment HRM * uncertainty orientation						.02
Constant	2.82	2.89	2.88	2.82	2.88	2.88
Variance	.06	.17	.17	.06	.15	.15
FChange	.06	.11	.00	.06	.09	.00

*= p<.01

Additional analysis

As can be seen in Table 4, the beta's from the regression from the relationship between High Commitment HRM and affective commitment are different when consistency is included in the model ($\beta .17$) and when uncertainty orientation is included in the model ($\beta .02$). Thus, it seems that the relationship between High Commitment HRM and affective commitment is stronger when consistency is included in the model. If consistency is included in the model, the direct effect is greater than if uncertainty orientation is included in the model. Therefore, the indirect effect of consistency is greater than the indirect effect of uncertainty orientation.

To explore this, a three way interaction was conducted. As can be seen in Table 5 on the next page, it turned out that the three way interaction between High Commitment HRM, consistency and uncertainty orientation was not significant ($\beta = .02; p = .36$). However, the direct of High Commitment HRM on affective commitment was significant ($\beta = .17, p \leq .01$). It may therefore be the case that High Commitment HRM is a suppressor variable. A suppressor variable is a variable which itself has no effect on the dependent variable. However, the presence of this variable in the model does affect the relationship between other independent variables and the dependent variable (MacKinnon, Krull & Lockwood, 2000). Because High Commitment HRM and affective commitment correlate positively, and consistency and affective commitment also correlate positively, it creates a negative pressure on the correlation between consistency and affective commitment. This negative pressure may mask a true positive effect of consistency on affective commitment.

Table 5. Regression analysis with dependent variable affective commitment (n=344)

	Model 1	Model 2	Model 3	Model 4
Gender	.07	.06	.06	.06
Organization	.30*	.09	.09	.08
High Commitment HRM		.17*	.17*	.17*
Consistency		.02	.03	.03
Uncertainty orientation		.01	.01	.01
High Commitment HRM * consistency			.02	.02
High Commitment HRM * uncertainty orientation			.01	.01
Consistency * uncertainty orientation			.01	.01
High Commitment HRM * consistency * uncertainty orientation				.02
Constant	2.82	2.89	2.88	2.88
Variance	.06	.17	.17	.17
FChange	.06	.11	.00	.00

*= p<.01

Discussion and Conclusion

The aim of this research was to study the relationship between HRM and affective commitment with the moderators consistency and uncertainty orientation in an experiment and in a field study. The focus in this study was on the way individual employees perceived the content (as measured with High Commitment HRM and High Commitment Management) of HRM as consistent and how this contributes to affective commitment.

The first hypothesis predicted that the positive relationship between HRM and affective commitment is strengthened by consistency. Only positive direct effects from High Commitment Management and High Commitment HRM on affective commitment were found. A possible explanation might be the fact that with Commitment-based management, the bundle of HRM practices is focused on commitment. Employees tend to feel committed to reciprocate this with behavior that benefits the organization (Konermann, Runhaar, Vermeulen & Sanders, in press). Commitment-based management strengthens the sense of belonging to an organization, what results in employees' showing affective commitment. Another explanation is the social exchange theory (Konermann *et al*, in press). The social exchange theory argues that social exchanges are present when employees perceive that the actions they do are rewarded by others. So when an organization applies Commitment-based HRM/management, employees tend to feel that they have to repay this investment and therefore show affective committed behaviors.

Despite that there are high correlations between consistency and affective commitment, and consistency and the content of HRM, there were no direct or moderator effects found. So it can be concluded that the content of HRM is important in explaining the link between consistency and organizational outcomes. It can be the case that other features are more important in explaining the link between HRM and affective commitment. For example, distinctiveness can

be an important feature. If HRM is for example perceived as distinctive with reference to other organizations, employees can be committed to the company, because they perceive HRM as positive in resemblance with other organizations. Another explanation is the measurement of affective commitment. In this research, the focus was on affective commitment. In the literature, three forms of commitment are mentioned: affective commitment, continuance commitment and normative commitment (Meyer & Allen, 1991). Continuance commitment is the commitment to an organization, because an employee perceives high costs of losing organizational membership. Normative commitment is the case when an employee remains with an organization because of feelings of obligation.

It may be the case that if an organization applies consistent HRM practices, an employee may want to stay in the organization (normative commitment), because the application of HRM practices is predictable. It could also be the case that consistency is an important variable for control-based HRM instead of commitment-based HRM. In a control-based organization, tasks are narrowly defined and standardized so employees can be properly monitored. In a commitment-based approach, jobs are broad and provide greater autonomy and empowerment. Control-based HRM is based on standardization, systematization, and formalization in management systems and processes. So it could be the case that consistency is more important for control-based HRM, with formalized and fixed rules.

Hypothesis 2 predicted that the relationship between HRM and affective commitment was strengthened by uncertainty orientation. Again, only direct effects were found for the content of HRM. It may be the case that uncertainty orientation is an important moderating variable in relationships between HRM and other dependent variables, for example innovative behaviour.

Uncertainty orientation may then weaken the relationship between HRM and innovative behaviour, because strict rules and regulations prohibit the climate for innovative ideas. Uncertainty orientation has perhaps less to do with affective commitment, because commitment may be more dependent on the organization and the HR practices that are used, than the application of strict rules and regulations. An employee can be committed if an organization applies commitment-based practices, even if there is high ambiguity in the organization.

Continuance commitment is suggested as the form of commitment which has the strongest relation with uncertainty orientation (Cohen, 2000). The employee remains a member of the organization because he/she "has to" (Cohen, 2000). It could be the case that employees who value rules, have a high need for clarity and are afraid to leave the organization, because the uncertainty about the continuation of their careers. So, again the measurement of affective commitment can be the reason that no relationship is found between uncertainty orientation and affective commitment.

Both consistency and uncertainty orientation were no moderators of the relationship between HRM and affective commitment. The study from Tata *et al.* (2003) showed that culture did not influence the perceived fairness of the principle of consistency. A higher rating on uncertainty orientation did not translate into a greater preference for consistent procedures applied across employees, perhaps because factors other than uncertainty orientation influence the perceived fairness of consistency. For example, consistency may be perceived as fair only if individuals trust the rules and the system to be fair, and inconsistent procedures resulting in fair outcomes may be preferred to consistent but unfair procedures. Further research is necessary to clarify this issue.

An additional analysis with a three way interaction between High Commitment HRM, consistency and uncertainty orientation was conducted. It turned out that the three way interaction was not significant. It may therefore be the case that High Commitment HRM is a suppressor variable. There are several ways to control for suppressor variables. The best way is stratification of the sample and to conduct a randomized study of a large sample, such that all possible suppressor variables will be distributed by chance across all study groups (Dooley, 2008).

The control variables showed that High Commitment Management was negatively related to organization. Next to that, the control variables showed that High Commitment HRM was negatively related to age, education and organization. The mean age was 41 and most people were relatively high educated. Maybe these employees had more high expectations from their organization and are therefore more committed to their job than to their organization. Further, the control variables showed that High Commitment HRM was positively related to gender. A possible explanation could be that women attach more means to High Commitment HRM than men. Women were represented more than men in this study, which therefore can explain the relationship between High Commitment HRM and affective commitment.

Limitations and implications for research

This study had some strengths and limitations. The first strong point was that the content and process of HRM were combined. According to Bowen and Ostroff (2004), the content of HRM can not be neglected. Next to that, the concept consistency was studied in a field study and in a scenario study. Another strength of this research is that the questionnaires were processed

anonymously, this can lead to lower social desirability. Next to that, this study focussed on perceived HRM instead of intended HRM.

There were also some limitations. First, because the data is collected from mostly Dutch employees, it does not allow for a cross-national comparative analysis. But individual differences in uncertainty orientation could be assessed, because the SD was .45, so there was enough variance. Further research could take into account other culture variables, such as long term orientation. In the present study we were not able to analyze this variable, because of the low reliability of the scale ($\alpha = .44$). It may be possible that long term orientation has some influence on the relationship between a consistently perceived HRM system and affective commitment, because people who are long term orientated attach more means to consistency in time (Ganesan, 1994).

Third, this study used the same instrument to measure the independent and dependent variables (although culture is independent of the instrument), thus increasing the potential for common-method bias. However, a scenario is used to overcome this problem.

Fourth, in this study, we were not able to collect qualitative data. But it may be interesting to ask employees or HRM officers for clarification. In the current study, data was collected from employees, but the focus could be also on HRM implementers. Further research could therefore focus on HRM actors, which can be also line managers, according to the trend that HRM activities are devolved to line management (Brewster & Larsen, 1992).

Also, other measures of consistency could be used. For example, in the research of Li *et al.* (2011) consistency was assessed by within-respondent agreement in relation to the HPWS index, operationalized as the inverse average deviation for each HRM practice for each respondent (consistency-based approach). In the study from Tata, Fung and Wu (2003), consistency was

measured through items that asked respondents to rate the extent to which managers applied standards uniformly across employees (e.g., “The performance evaluation procedures make sure that managers consistently apply standards from one employee to the next”).

Despite that there are not many differences in the conceptualizations from Kelley and from Bowen and Ostroff, some remarks can be made. The three consistency features validity, instrumentality and consistency from Bowen and Ostroff (2004) all three are part of characteristics of HRM messages (Delmotte, 2008). But it can be expected that consistency is also an important characteristic of the HRM message sender. An indication for this expectation can be found in the resemblances with visibility, agreement among decision makers and procedural justice. Also, the instrumentality and consistency features from Bowen and Ostroff resemble each other. Research from de Winne, Delmotte and Sels (in press) showed that these two features loaded on the same factor, so it seems that employees perceive these features the same. In addition, the validity feature (what HRM pretends to do and what HRM really does) resembles the consistency feature. Distinctiveness and consensus have clearer differences in the conceptualizations from Bowen and Ostroff and Kelley. For consistency, differences are less clear. It is however important to further refine and test the aforementioned theoretical considerations related to consistency from the model of Bowen and Ostroff and Kelley.

Despite that the concepts of High Commitment HRM and High Commitment Management are closely linked, is it possible that different parts of the content of HRM are measured, whereby not a properly comparison can be made between the field study part and the experimental part of this research.

In this study, data from four different companies was collected. The respondents are therefore from a heterogeneous population, which can make it difficult to generalize the results. Further,

the low response rate was probably due to a number of reasons. Some respondents mentioned that the questionnaire was too long. Furthermore, the questionnaire in this study came along with an employee satisfaction research in the hospital and the health care institution. This perhaps generated tiredness by the respondents. In addition, respondents who have to hand in their paper questionnaire to the HRM department were perhaps afraid that their anonymity would not be guaranteed. Next to that, we choose to have a 4-point Likert scale, in order to address people's tendency to select midpoints of a range. Because there were no 'neutral' and 'do not know' response category, some respondents stopped earlier with filling in the questionnaire. In addition, the questionnaire was not easy understandable for all respondents. This may be due to the fact that many respondents do not often encounter with the HRM department. This is especially the case with the hospital and the health care institution, because the HRM department in these organizations advice the management and not the employees. Also, it seems that employees can not make a distinction between the three features of consistency, because the different features loaded on one factor.

In sum, it can be concluded that commitment-based HRM and management lead to affective commitment.

Practical implications

The control variables showed that High Commitment HRM was negatively related to age and education. Maybe older and higher educated employees have more expectations from their organization and are more critical. Employees with more work experience may have more familiarity with High Commitment HRM. In addition, it could be the case that higher educated employees have more understanding of High Commitment HRM practices. For organizations, it

is important to use and promote the various High Commitment HRM tools, like training and education. Employees in this study, who scored high on affective commitment, had a high degree of emotional attachment within the company. This can result in lower absenteeism and increased productivity. So it is important for companies to apply commitment-based practices, for example training and education, a career planning in collaboration with the employee and job security.

Appendix A

The Following scenario was administered:

“You are employed as product developer within a company that manufactures high-quality and innovative electronic products. Your task is to design and develop new ideas and products. Next to the product development department, the company’s management is supported by four other departments: the financial department is responsible for all financial activities. The personnel- or Human Resource department is responsible for all employee related affairs. The IT department provides support all computerized systems within the company. Finally, the department of Communication facilitates all internal and external communication of the company. The management desires to create an atmosphere in which every employee can make use of their talents and perform as best as possible. Within your own department management activity involves all employees in major decisions and opinions are taken seriously. Moreover, management has arranged that the financial department reserves a budget for development of the company’s employees. Also the costs for a home internet connection are refunded so that you can work at home. The IT department has laptops available, so that employees can work wherever they like. Besides this, there is the possibility to log on into the company’s network from home. The department of Communication makes sure that all employees are informed of important management decisions”.

Appendix B

Table 6. Scenario manipulations

Attribution	Since the time you have worked in this company you have noticed that the personnel department
Object	<ul style="list-style-type: none"> • Usually takes measures that are experienced by you, as well as your colleagues in the same way (consensus) • Offers training and learning that are equally valued by both you and your colleagues (consensus) • Always offers opportunities to take courses (consistency) • Has attuned all different parts of personnel policy, for instance they attuned recruitment and selection (consistency) • Offers favourable fringe benefits, for example the provision of laptops (distinctiveness) • Gives a lot of freedom for your own input into the work (distinctiveness)
Person	<ul style="list-style-type: none"> • Usually takes measures that you and your colleagues experience differently (consensus) • Offers training and learning that are differently valued by both you and your colleagues (consensus) • Always offers opportunities to take courses (consistency) • Has attuned all different parts of personnel policy, for instance they attuned recruitment and selection (consistency) • Offers the same benefits as most other companies do (distinctiveness) • Gives little freedom for your own input into the work (distinctiveness)
Context	<ul style="list-style-type: none"> • Usually takes measures that you and your colleagues experience differently (consensus) • Offers training and learning that are differently valued by both you and your colleagues (consensus) • Doesn't offer the opportunity to take courses, whereas in the past it had been possible (consistency) • Hasn't attuned all different parts of personnel policy, for instance they did not attune recruitment and selection (consistency) • Offers favourable fringe benefits, for example the provision of laptops (distinctiveness) • Gives a lot of freedom for your own input into the work (distinctiveness)

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