JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH 428

Mervi Ruokolainen

Do Organizational and Job-Related Factors Relate to Organizational Commitment?

A Mixed Method Study of the Associations

Esitetään Jyväskylän yliopiston yhteiskuntatieteellisen tiedekunnan suostumuksella
julkisesti tarkastettavaksi yliopiston Agora-rakennuksen salissa AgAud 3
joulukuun 10. päivänä 2011 kello 12.

Academic dissertation to be publicly discussed, by permission of
the Faculty of Social Sciences of the University of Jyväskylä,
in building Agora, auditorium AgAud3, on December 10, 2011 at 12 o'clock noon.

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2011

Do Organizational and Job-Related Factors Relate to Organizational Commitment?

A Mixed Method Study of the Associations

JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH 428

Mervi Ruokolainen

Do Organizational and Job-Related Factors Relate to Organizational Commitment?

A Mixed Method Study of the Associations

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2011

Editors
Aarno Laitila
Department of Psychology, University of Jyväskylä
Pekka Olsbo
Publishing Unit, University Library of Jyväskylä

Cover picture by Mirva Salmi

URN:ISBN:978-951-39-4510-7
ISBN 978-951-39-4510-7 (PDF)

ISBN 978-951-39-4509-1 (nid.)
ISSN 0075-4625

Jyväskylä University Printing House, Jyväskylä 2011

ABSTRACT

Ruokolainen, Mervi
Do organizational and job-related factors relate to organizational commitment?
A mixed method study of the associations
Jyväskylä: University of Jyväskylä, 2011, 135 p.
(Jyväskylä Studies in Education, Psychology and Social Research
ISSN 0075-4625; 428)
ISBN 978-951-39-4509-1 (nid.)
ISBN 978-951-39-4510-7 (PDF)
Finnish summary: Ovatko organisaation ja työn piirteet yhteydessä organisaatioon sitoutumiseen? Monimenetelmällinen tutkimus ilmiöiden välisistä yhteyksistä

The purpose of this study was to examine organizational commitment (OC) and organizational and job-related factors as antecedents of it. The study was based on a research project "Organizational Culture and Well-being" (2003-2006) during which various data were collected and utilized in four separate studies as follows: interview data were gathered from a public health care district (HCD) (n = 16) and an ICT company (n = 15) for Study I, cross-sectional data were collected from a cartonboard mill, the ICT company and HCD, (n = 1252) for Studies II-III, and longitudinal data were gathered from the HCD in 2003-2005 (n = 409) for Study IV. The interview-based findings indicated that OC was regarded as an obscure construct, characterized by an employee's responsibility and defined as age-related work involvement. In addition, employees' commitment was perceived to be dependent on structural and cultural factors, a climate of uncertainty and obscurity, humanistic HR practices and non-organizational factors. The main cross-sectional results revealed, firstly, that employees who perceived organizational culture as highly rule-oriented were less affectively and normatively committed than those who assessed the culture as human-oriented or referred to task-oriented leadership culture. Secondly, the older employees in the HCD experienced stronger affective and normative commitment than their younger colleagues in the condition of higher work-to-family conflict. Thirdly, in a situation where job insecurity was high, the younger employees in the HCD proved to be more protected than the older ones form the negative effect of job insecurity on affective and normative commitment, whereas in the mill normative commitment decreased more among the younger than older employees when job insecurity was perceived as high. The longitudinal findings showed that OC functioned as a stronger precursor of work characteristics than vice versa. Thus, the more affectively and normatively committed the employees were in 2003, the less job insecurity and work-to-family conflict they experienced, the better job control they reported, and the more humanistic they regarded the organizational culture in 2005. In addition, employees, who assessed their organizational culture as humanistic in 2003, expressed higher affective and normative commitment in 2005. In sum, organizations should foster employees' OC by, for instance, emphasizing a humanistic organizational culture. In the future, greater attention should be paid to possible age-related differences in defining of OC and its antecedents.

Keywords: organizational commitment, affective commitment, normative commitment, job characteristics, age, organizational culture, longitudinal study, interview study

Author's address Mervi Ruokolainen
Department of Psychology
University of Jyväskylä
P.O. Box 35
FIN-40014 University of Jyväskylä
mervi.h.ruokolainen@jyu.fi

Supervisors Docent Saija Mauno (main supervisor)
Department of Psychology
University of Jyväskylä, Finland

Professor Ulla Kinnunen
School of Social Sciences and Humanities
University of Tampere, Finland

Professor Jarl Wahlström
Department of Psychology
University of Jyväskylä, Finland

Reviewers Professor Hans De Witte
Department of Psychology
Katholieke Universiteit Leuven, Belgium

Professor Jukka Lipponen
School of Science
Aalto University, Finland

Opponent Professor Jukka Lipponen
School of Science
Aalto University, Finland

ACKNOWLEDGEMENTS

This PhD project has been very interesting and has included many instructive moments. I wish to express my gratitude to the many people who have advised and supported me during this project.

First, I want to extend my greatest thanks to my supervisor Docent Saija Mauno, who took me into her research group and who has inspired, guided and supported me over the years and helped me to complete this project. Saija, without you this dissertation would not have been possible. I am also grateful to my other supervisors, Professor Ulla Kinnunen and Professor Jarl Wahlström, for their constructive comments and expertise throughout this project. Furthermore, I wish to thank the official reviewers, Professor Jukka Lipponen and Professor Hans De Witte, for their valuable comments and suggestions on how to improve my thesis.

I also want to express my thanks to Docent Asko Tolvanen for his patient help and guidance with statistical methods. Gratitude also goes to English lecturer Michael Freeman and Finnish lecturer Tiina Reis for their help improving and editing the language of this thesis. I also want to thank the University of Jyväskylä, the Finnish Work Environment Fund and the Emil Aaltonen Foundation for financial support during this study. In addition, I would like to thank the employer and employee representatives from the three studied organizations for all their contributions to my research.

I would also like to acknowledge the support I have received from my colleagues and friends. Dr. Anne Mäkikangas, Dr. Marja Hätinen, Dr. Katriina Hyvönen, and Lic. A. Psych. Sari Suomalainen, thank you for inspiration and companionship. I also want to thank Satu Pursiainen and Johanna Waal for being such loving friends and reminding me what is truly important in life. Special thanks go to Dr. Päivi Forsblom, my academic tutor, and my other friends in Munich for all the support and unforgettable moments that we have spent together.

I also want to express my warmest thanks to my loving parents Seija and Seppo Pyykkö and my dear sister Maarit Pyykkö who have always been there for me and believed in me. All my love and gratitude go to my husband Simo Ruokolainen. You have supported, encouraged, comforted and cheered me up during this project. Finally, I want to thank my children. Erika and Anton – you are the most precious gifts in my life.

Munich, November 2011 Mervi Ruokolainen

FIGURES

TABLES

CONTENTS

1 INTRODUCTION

1.1 Organizational commitment in today's working life

Organizational commitment has attracted considerable attention during recent decades owing to the fact that it has many positive effects on employees and organizations. According to the previous meta-analytic reviews, organizational commitment or affective commitment, in particular, relates to employees' improved job performance, organizational citizenship behavior, health and well-being as well as lower level of turnover intentions, actual turnover and absenteeism (e.g., Cooper-Hakim & Viswesvaran, 2005; Mathieu & Zajac, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Riketta, 2008; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). With regard to organizational operational performance, better productivity, quality, profitability and customer satisfaction have also been linked to commitment (e.g., Harter, Schmidt, & Hayes, 2002; Wright, Gardner, Moynihan, & Allen, 2005). In addition, committed employees have been seen to be innovative, to be active in developing their organizational-relevant skills, to invest more time and energy in obtaining the results, and to show stronger support and acceptance for organizational change (e.g., Blau et al., 2008; De Clercq & Rius, 2007; Meyer, Srinivas, Lal, & Topolnytsky, 2007; Ng, Feldman, & Lam, 2010). Altogether, organizationally committed employees seem to perform at a higher level and stay with the organization, thereby contributing to organizational productivity and effectiveness and decreasing the costs related to turnover.

In light of the several positive consequences associated with organizational commitment, it is clear that the organizations tend to value highly committed employees. However, it is not necessarily easy either for organizations to commit the employees in their service or for employees to stay committed in the face of the business and economic realities that characterize working life today. For example, global competition, quartile economics, and changes in technology and consumer demands make work less predictable. Organizations may also confront pressure to improve their efficiency by downsizing, outsourcing and

reengineering jobs, and using a more contingent workforce (see e.g., Burke & Cooper, 2006; Meyer, 2009). In a continuously changing environment, it can thus be challenging for organizations to make long-term future prognoses, human resource policies, and employment relationships and show their own commitment to their employees. All this may, furthermore, reflect negatively on employees' willingness to commit.

In order to commit the employees to the organization, more knowledge is needed regarding what commitment actually is and whether it still is a relevant matter in continuously changing organizations. The literature offers a number of definitions of commitment, which vary in their target and nature (for a review, see Cooper-Hakim & Viswesvaran, 2005; Klein, Molloy, & Cooper, 2009). However, predominantly these definitions were formulated at a time when societal and organizational changes were less evident than they are today, and have mainly been studied quantitatively, meaning that the individual's own experience of commitment has been conspicuously absent (Klein et al., 2009; Meyer & Allen, 1997). Hence, more research is needed to clarify how employees nowadays subjectively understand commitment, what kind of meanings they associate with it and whether these conceptualizations resemble or differ from the traditional ones.

Another important issue that strongly characterizes today's working life and with which organizations are struggling is the aging of the workforce (see Employment in Europe 2007, 2007; the 2009 Ageing Report, 2009). The pressure of organizations to retain their aging employees and to delay their exit from the labor force is becoming more crucial due to forecasts of a shortage of a labor. In addition, the rapid retirement process has been regarded as a risk for the success of many organizations (e.g., Dess & Shaw, 2001; Droege & Hoobler, 2003; Streb, Voelpel, & Leibold, 2008). Aging employees' strong organizational commitment may, however, decrease their turnover intentions and thoughts about early retirement and help organizations to retain these employees longer in their service. Thus, it might be useful for organizations to understand what factors are associated with employees' organizational commitment nowadays and what role is played by age in this equation.

In Finland, little research has been published on employees' organizational commitment. The few existing studies have concentrated on comparing union and organizational (Jokivuori, 2002) and occupational and organizational (Laine, 2005) commitment, and the antecedents and outcomes related to them. Moreover, the relationships between organizational commitment and employee psychological well-being (Tuomi, Vanhala, Janhonen, & Nykyri, 2006), and the effect of psychological contract fulfillment on organizational commitment (Parzefall, 2008) have been investigated. The results of these studies have revealed that the Finnish employees seemed to be strongly committed to their organizations.

With regard to the concerns presented above, the aims and contribution of the present study rest on four particular issues. *First,* the study clarifies the concept of organizational commitment and it antecedents by examining these phenomena both quantitatively and qualitatively. *Second*, it investigates as anteced-

ents of organizational commitment the psychosocial job (e.g., work-to-family conflict, job insecurity), and organizational (e.g., humanistic organizational culture) characteristics that seem to have an important role in working life today and which may influence employees' decision to stay with or leave the organization (e.g., Allen, Herst, Bruck, & Sutton, 2000; Cheng & Chan, 2008; Kooij, Jansen, Dikkers, & De Lange, 2010; Meyer, Hecht, Gill, & Toplonytsky, 2010). *Third,* the study also focuses on an employee's age as a moderator between job characteristics – organizational commitment relationships, a topic, which has been relatively under-investigated in previous studies (cf., Cheng & Chan, 2008; Claes & Van De Ven, 2008; Finegold, Mohrman, & Spreitzer, 2002; Gordon, Whelan-Berry, & Hamilton, 2007). *Fourth*, this dissertation broadens the perspective offered in previous Finnish studies by concentrating in part on different antecedents, examining the commitment in three different organizations and utilizing both cross-sectional and longitudinal data.

This Introduction section of my study focuses next (subsection 1.2) on the different definitions related to organization commitment. Subsection 1.3 introduces the antecedents of organizational commitment examined in this study. In the subsection 1.4, the main theories explaining the relationships between the phenomena are presented. Finally, subsection 1.5 defines the aims of the study.

1.2 Conceptualizations of organizational commitment

1.2.1 The earliest uni- and multidimensional definitions

The concept of organizational commitment has been challenging for researchers in the fields of organizational behavior and management as there is a lack of consensus on how to define it (e.g., Brown, 1996; Cohen, 2007; Cooper-Hakim & Viswesvaran, 2005; Klein et al., 2009; Meyer & Herscovitch, 2001). Several different conceptualizations of organizational commitment have been presented since the 1960s. In order to better understand the current state of the concept of organizational commitment, a description of the development of the concept is offered next.

One of the earliest attempts to define organizational commitment was Becker's (1960) side-bet theory. According to this theory, an individual's commitment to an organization is based on the accumulation of investments, so called side-bets that an employee values and accrues over time while working for the organization (e.g., retirement and health care benefits, seniority increments, vacations) and which will be lost or deemed worthless if s/he decides to leave the organization (see e.g., Brown, 1996; Cohen, 2007; Meyer & Allen, 1984). Altogether, the employee's commitment to the organization is effected by the threat of losing such investments along with a perceived lack of the ability to replace or make up for the loss of them (see e.g., Cohen, 2007; Meyer & Allen, 1984). Kanter (1968) introduced the term "continuance commitment" to describe an employee's continuance in an organization in a situation where it has be-

come difficult for her/him to leave due to the investments accrued and sacrifices made while working for the organization.

The next significant attempt to define organizational commitment was made by Porter, Steers, Mowday and Boulian in 1974. They emphasized an employee's psychological attachment to an organization, and thus took an attitudinal approach to commitment instead of viewing it in the more concrete terms of side-bets (Mowday, Steers, & Porter, 1979). Accordingly, organizational commitment was defined as "the strength of an individual's identification with and involvement in a particular organization" (Porter et al., 1974, p. 604). A highly organizationally committed person was characterized as follows: s/he has a) a strong belief in and acceptance of the organization's goals and values, b) a willingness to exert considerable effort on behalf of the organization, and c) a definite desire to maintain membership in the organization (Porter et al., 1974). Organizational commitment is thus more than passive loyalty to an organization, as it denotes that employees are willing to give something of themselves to the organization, and so contribute to its success and well-being (Mowday et al., 1979). The definition offered by Porter and colleagues (1974) has been held to be unidimensional, although it distinguishes three different aspects or dimensions of attitudinal commitment (see Cohen, 2007; Jaussi, 2007). In fact, only the first dimension (a) has been argued to focus on the psychological basis of attachment, whereas the latter two dimensions (b-c) represent more the consequences of commitment than commitment itself (Cohen, 2007; O´Reilly & Chatman, 1986).

In 1982 Wiener entered the debate on organizational commitment by stating that organizational commitment could be defined as a sense of obligation that binds an employee to a certain course of action. Thus, normative pressure obliges employees to act in a way which meets organizational goals and interests and commits them to their organizations. Wiener described committed employees as willing to make personal sacrifices for the sake of the organization because they "believe it is the 'right' and moral thing to do" (Wiener, 1982, p. 421; see also Meyer & Parfyonova, 2010). To sum up, the unidimensional approaches of Becker (1960), Porter and colleagues (1974) and Wiener (1982) characterise the early definitions of organizational commitment.

With regard to multidimensional approaches, it has been acknowledged that organizational commitment can take different forms such as emotional attachment, sense of being locked in or feeling obligated to continue a course of action. Thus, the nature of commitment (i.e., a mind-set, frame of mind or psychological state defining the relationship between an employee and an organization) has been seen to vary (Klein et al., 2009; Meyer & Allen, 1997; Meyer & Herscovitch, 2001). Two significant multidimensional models were developed in the 1980s: the model by O'Reilly and Chatman (1986) and the Three Component Model of Organizational Commitment by Meyer and Allen (see Allen & Meyer, 1990; Meyer & Allen 1984, 1991). The four-component model recently proposed by Cohen (2007) is an interesting re-conceptualization of organizational commitment. The other multidimensional approaches developed since the 1980s have had less impact on organizational commitment research (for more detail, see Meyer & Herscovitch, 2001) and therefore are not introduced here.

According to O'Reilly and Chatman (1986), organizational commitment represents an employee's psychological attachment to the organization, reflecting the degree to which the employee internalizes or adopts the characteristics or perspectives of the organization. They also argue that organizational commitment can be characterized through three different forms or dimensions; compliance, identification and internalization. Compliance occurs when the employee adopts the requisites attitudes and behavior only to gain specific rewards. Identification, on the other hand, is based on a desire for affiliation, meaning the desire to establish or maintain a satisfying relationship. Finally, the basis of internalization is on value congruence between the employee and the organization. According to Cohen (2007), O'Reilly and Chatman's model actually distinguishes two processes of commitment: 1) instrumental exchange based on shallower attachment and 2) deeper psychological attachment.

Thus far, the most dominant multidimensional conceptualization of organizational commitment has been Meyer and Allen's three-component model (Allen & Meyer, 1990; Meyer & Allen, 1991; Meyer, Allen, & Smith, 1993). In this model they integrate the three general themes or conceptualizations existing in the previous, mainly unidimensional definitions of organizational commitment. In other words, they see organizational commitment as consisting of affective attachment to the organization, perceived costs associated with leaving the organization, and obligation to remain with the organization, labeling them; affective, continuance and normative commitment, respectively (Allen & Meyer, 1990; Meyer & Allen, 1984, 1991, 1993). Common to these three approaches is that they all see commitment as a psychological state that characterizes an employee's relationship with the organization, and has effects on the employee's decision to continue or discontinue membership in the organization (Meyer & Allen, 1991, 1993; Powell & Meyer, 2004). Where they differ is in the nature of the psychological states, mind-sets, they describe. Accordingly, affective commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization (Meyer & Allen, 1991). Continuance commitment is defined as an awareness of the costs associated with leaving the organization, and normative commitment reflects a feeling of obligation to continue in the organization's employ (Meyer & Allen, 1991). In other words, employees with strong affective commitment remain because they want to do so, those with strong continuance commitment remain because they need to do so, and those with strong normative commitment remain because they feel they ought to do so (Allen & Meyer, 1990, 1996; Meyer et al., 1993). The three dimensions are not exclusive, and thus an employee can experience all of them to a varying degree (Meyer & Allen, 1991, 1997).

1.2.2 The most recent conceptualizations

Cohen´s (2007) four-component commitment model (see Figure 1) represents a recent re-conceptualization of organizational commitment. The model is based on the idea of Mowday and colleagues (1982) that the development of organizational commitment is a process which begins before an employee enters the or-

ganization and continues during the period of employment (see Cohen, 2007). The model modifies existing multidimensional models of organizational commitment. It proposes that organizational commitment comprises two dimensions: timing of commitment and bases of commitment. The former differentiates commitment attitudes that develop before and after an employee's entry into the organization and the latter makes a distinction between instrumental attachment and psychological attachment. The four forms of commitment Cohen (2007) defines as follows: ´Normative commitment propensity´ is a general moral obligation towards the organization, rooted in one's past experiences such as culture and socialization, and developed before organizational membership. ´Instrumental commitment propensity´ in turn is a general tendency to be committed to a particular organization and is based on the exchanges such as benefits, compensation and remuneration expected with the organization. The third form of commitment in Cohen's model is ´instrumental commitment´ which develops from the actual exchange with the organization and is based on an employee's evaluations of the quality of the exchange. That is the evaluations between an employee's contributions to the organization and rewards that s/he receives. Finally, ´affective commitment´ is defined as psychological attachment to the organization, and emphasizes strong identification with, involvement in and sense of belonging to the organization.

Commitment dimensions		Bases of commitment	
		Instrumental attachment	Psychological attachment
Timing	Before entry to the organization	'Instrumental commitment propensity'	'Normative commitment propensity'
	After entry to the organization	'Instrumental commitment'	'Affective commitment'

FIGURE 1 The four-component commitment model by Cohen (2007)

The latest debate around the concept of organizational commitment has focused on construct clarification and integration (see Becker, Klein, & Meyer, 2009; Klein et al., 2009). Two major efforts have been made to define the core concept of organizational commitment. First, Meyer and Herscovitch (2001) ended up defining organizational commitment as an internal stabilizing or obliging force that gives direction to an individual's behavior. It binds an employee to a target and/or to a course of action relevant to that target (Meyer, 2009; Meyer & Herscovitch, 2001). Although this force itself can be accompanied by mind-set of desire (affective commitment), obligation (normative commitment) and perceived cost (continuance commitment) or different combinations of them, the core essence of commitment, i.e., a force binding one to a target, is unidimen-

sional (Meyer, 2009; Meyer & Herscovitch, 2001). Thus, the mind-sets only reflect an individual's belief, feelings and experiences about the nature of her/his commitment (Becker et al., 2009).

Second, Klein and colleagues (2009) defined commitment unidimensionally as a bond. They argued that commitment as a bond describes commitment as a psychological state reflecting how strongly an individual is bound (or psychologically attached) to the target, whereas commitment as a binding force (Meyer & Herscovitch, 2001) is based on the idea that the antecedents of commitment create pressure which binds the individual to the target. According to Klein and colleagues (2009), organizational commitment should be defined as a bond as it most clearly distinguishes commitment from its antecedents, outcomes and other related but distinct constructs (Becker et al., 2009). In addition, in their model Klein et al. (2009) distinguish between how strongly someone is attached (commitment strength), to what someone is attached (the target) and why someone believes that s/he is attached (commitment rationales).

The main difference between the definitions of commitment offered by Meyer and Herscovitch (2001) and Klein and colleagues (2009) is that in the latter definition the bond between an individual and organization does not require the force that creates the bond (Vandenberghe, 2009). According to Klein et al. (2009), the mind-sets in Meyer and Herscovitch's model relate to different antecedents of commitment, whereas the commitment rationales in their own model reflect how individuals make sense of their commitment. Thus, the rationales do not necessarily associate with the actual causes of the bond (Klein et al., 2009). Klein et al. (2009) have also emphasized that commitment is a singular phenomenon that can be viewed in multiple ways, whereas in the case of mind-sets one can speak of different dimensions, types or forms of commitment. In addition, Klein and colleagues (2009) have argued that the mind-sets in Meyer and Herscovitch's model confound how individuals view their commitment and how strongly committed they are, whereas in their own model the commitment rationales hold these factors separate.

On the basis of the different definitions presented above, it is difficult to say which would describe the concept of organizational commitment in the most unambiguous and most comprehensive way. What comes to the older unidimensional models (Becker, 1960; Porter et al., 1974; Wiener, 1982), they are far too simple to characterize the phenomenon and have encountered some criticism (see Klein et al., 2009). In their definitions, Meyer and Herscovitch (2001) and Klein and colleagues (2009) have succeeded in summarizing the essence of commitment such that it is applicable to all commitment targets. In this study, however, I preferred the definition offered by Meyer and Herscovitch (2001) as it is based on Meyer and Allen's (Allen & Meyer, 1990; Meyer & Allen, 1991; Meyer et al., 1993) model of organizational commitment which at the moment of research was and remains the most widely used multidimensional conceptualization of organizational commitment. The strengths and weaknesses of the model are discussed more in the closing section of this dissertation.

1.3 Antecedents of organizational commitment

Various antecedents of organizational commitment have been widely studied. As shown in Figure 2, these antecedents include demographic, personal, role, job/work, organizational and group/leader characteristics (see the meta-analyses by Cohen, 1992, Mathieu & Zajac, 1990, Meyer et al., 2002). In this study, the focus is on psychosocial job as well as organizational antecedents of organizational commitment. Moreover, age-specific analyses are performed in Study III and different demographic and work-related background factors are controlled for in Studies III-IV.

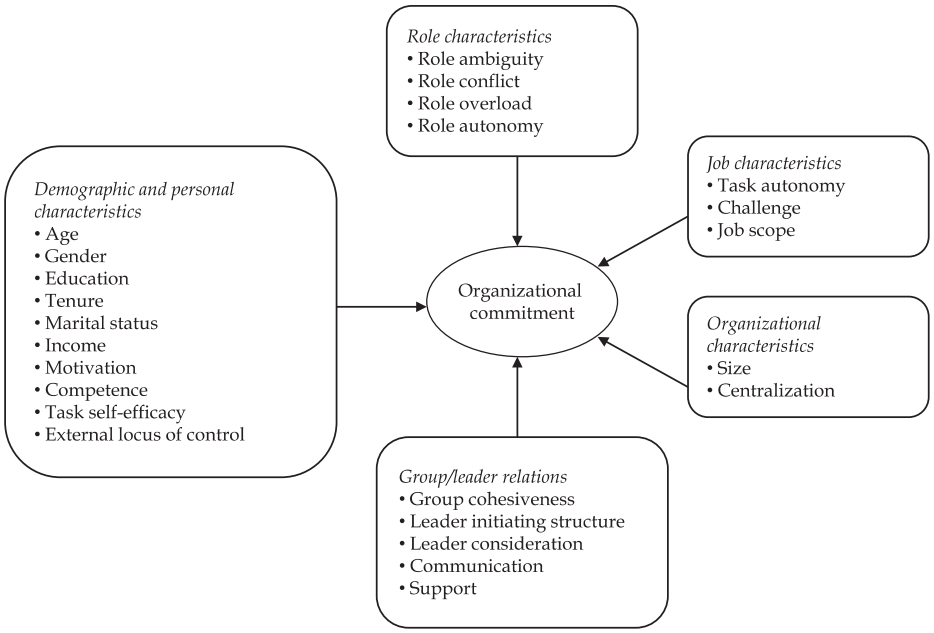


FIGURE 2 Antecedents of organizational commitment

1.3.1 Job, work and organizational characteristics

This section focuses, first, on the four psychosocial job characteristics investigated for this dissertation: job control, job insecurity, work-to-family conflict, and workload. These characteristics are relevant in today's working life and can influence employees' decision to stay with or leave the organization (e.g., Allen et al., 2000; Cheng & Chan, 2008; Kooij et al., 2010; Meyer et al., 2010).

These four characteristics also describe the experienced psychosocial aspects of job (Caplan, 1985) and can be divided into job demands and job resources in accordance with the Job Demands-Resources model (henceforth JD-R model) (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands refers

to different physical, psychological, social or organizational aspects of the job (e.g., high pressure of work, role overload, poor environmental conditions, problems related to reorganization) that require employees to make a physical and/or psychological effort (cognitive or emotional) and are therefore related to physiological and/or psychological costs (i.e., strain) (Bakker, Demerouti, de Boer, & Schaufeli, 2003; Bakker, van Veldhoven, & Xanthopoulou, 2010; Demerouti et al., 2001). Job resources, on the other hand, are physical, psychological, social or organizational features of the job manifested at the organizational (e.g., career opportunities, job security), interpersonal (e.g., supervisor and co-worker support, team climate) and task (e.g., skill variety, task identity, performance feedback) levels or at the level of the organization of work (e.g., role clarity, participation in decision-making) (Bakker et al., 2003, 2010; Demerouti et al., 2001). High job resources may reduce job demands and the physiological and/or psychological cost associated with them, stimulate personal growth, learning and development, and help employees to achieve their work goals (Bakker et al., 2003, 2010; Demerouti et al., 2001).

Next, brief definitions of job control (as a job resource) and job insecurity, work-to-family conflict and workload (as job demands) are given and their relationships with organizational commitment are reviewed. Second, as organizational culture is examined as an organizational precursor of organizational commitment in this study, the concept and its linkages to organizational commitment are also discussed.

Perceived *job control* is one of the main components of the Job Demand-Control model (Karasek, 1979; Karasek & Theorell, 1990), and consists of two dimensions: job autonomy and participation in the decision-making process (Spector, 1998). Thus, job control refers to task authority and involves the employee's freedom to determine how his/her work gets done, set his/her own goals, and use his/her skills at work, and have the opportunity to contribute to decision making (e.g., Karasek & Theorell, 1990; Mauno & Kinnunen, 1999; Terry & Jimmieson, 1999). A high level of job control (or autonomy) has relatively consistently been found to increase an employee's general organizational commitment (e.g., Abraham, 2000; Brockner et al., 2004; Cohen, 1992; De Cuyper & De Witte, 2006a; Idsoe, 2006; Krausz, Sagie, & Bidermann, 2000; Mauno, Kinnunen, & Ruokolainen, 2006; Parker, Axtell, & Turner, 2001; Spector, 1986) or affective commitment (e.g., Bakker et al., 2003; Ko, Price, & Mueller, 1997; Llorens, Bakker, Schaufeli, & Salanova, 2006). With regard to normative commitment, the few existing studies have revealed either positive or negative associations between job control and normative commitment (e.g., Bakker et al., 2003; Ko et al., 1997). In relation to employees' opportunities for organizational level participation, organizational commitment and, in particular, affective commitment are reported to be higher among employees who are allowed to participate in decision making (e.g., Meyer & Allen, 1997; Meyer, Bobocel, & Allen, 1991; Wasti & Can, 2008) and who perceive managers as receptive to their thoughts and ideas (e.g., Allen & Meyer, 1990; Robertson, Lo, & Tang, 2007).

Many negative job demands (e.g., job insecurity, work-to-family conflict, workload, time pressure at work) have also been studied in relation to organizational commitment. First, *job insecurity* has most often been conceptualized as a threat of involuntary job loss or job continuity (e.g., De Witte, 1999; Sverke, Hellgren, & Näswall, 2002). Thus, according to the global definition of job insecurity, job insecurity refers to the amount of uncertainty a person feels about the continuity of his/her job in the future (see De Witte, 1999; Hartley, Jacobson, Klandermans, & van Vuuren, 1991; Mauno & Kinnunen, 1999; Sverke et al., 2002). The previous empirical studies have reported that job insecurity has negative consequences for an employee's general organizational commitment and affective commitment (see meta-analyses by Cheng & Chan, 2008; Sverke et al., 2002). The relationships have mostly been reported to be moderate or strong (e.g., Claes & Van De Ven, 2008; De Cuyper & De Witte, 2006b, 2007; De Cuyper, Notelaers, & De Witte, 2009; De Witte & Näswall, 2003; Kinnunen, Mauno, Nätti, & Happonen, 2000; Lee & Peccei, 2007; Parker et al., 2001), although a few studies have found non-significant linkages between the phenomena (e.g., Feather & Rauter, 2004; for longitudinal effects, see Kinnunen et al., 2000,).

Work-to-family conflict has been defined as a form of inter-role conflict in which role pressure from the work domain interferes with family life (e.g., Byron, 2005; Greenhaus & Beutell, 1985; Kinnunen, Geurts, & Mauno, 2004; Kinnunen & Mauno, 2008). It consists of three inter-related dimensions, i.e., time-, strain- and behavior-based conflict (Greenahaus & Beutell, 1985; see also Mauno et al., 2006): in time-based work-to-family conflict, time demands, i.e., the amount of time spent in one role (e.g., long working hours), interferes with the performance of a family role (e.g., as a spouse or parent). In strain-based conflict, strain or fatigue experienced in one role hinders performance or exploits resources that would be otherwise available for another role. Finally, behavior-based conflict emphasizes that behavioral styles in one role are incompatible with the behaviors expected in another role. In this study the focus is on time- and strain-based work-to-family conflict. Previous studies on work-to-family conflict as an antecedent of organizational commitment have shown somewhat inconsistent associations (see Allen et al., 2000). There is empirical evidence to show that work-to-family conflict could reduce employees' general organizational or affective commitment (e.g., Allen et al., 2000; Kossek & Ozeki, 1999; Lyness & Thompson, 1997; Mauno et al., 2006; Meyer et al., 2002; Netemeyer, Boles, & McMurrian, 1996). However, according to a qualitative review conducted by Eby, Casper, Lockwood, Bordeaux and Brinley (2005), the opposite holds. Thus, employee perceptions of high work-to-family conflict could relate to their greater affective commitment. Furthermore, in their meta-analysis Mesmer-Magnus and Viswesvaran (2005) reported only a weak positive relationship between work-to-family conflict and organizational attachment (includes organizational attachment, organizational commitment, job involvement, and time commitment to work).

Workload and *time pressure at work* can be defined as having too much to do in a limited amount of time (e.g., Karasek & Theorell, 1990; Mauno & Kinnunen, 1999; Spector & Jex, 1998). As job stressors related to a role overload situation,

they can yield negative job attitudes and impaired well-being (e.g., Mauno & Kinnunen, 1999; Nordqvist, Hovmark, & Zika-Viktorsson, 2004). However, relatively few studies have examined workload as a possible precursor of organizational commitment. On the basis of the small number of few existing studies, workload seems either to diminish employees' general organizational commitment (e.g., Bakker et al., 2010; De Cuyper & De Witte, 2006a) and employees' affective commitment (e.g., Bakker et al., 2003; Llorens et al., 2006), or to foster normative commitment (e.g., Ko et al., 1997). In addition, the connection can also be statistically non-significant (e.g., Addae & Wang, 2006).

Organizational culture has been defined in many ways. It has been seen as a complex and multifaceted concept for which it is difficult to find a generally agreed definition (e.g., Cameron & Quinn, 1999; Denison, 1996; Hofstede 2001; Martin, 2002; Schein, 1990). In this study organizational culture is defined as follows (see e.g., Hofstede, 2001; Martin, 2002; Schein, 1990): organizational culture refers to commonly shared, internalized, concrete or non-concrete models of thinking and behaving. These relatively stable models a) are variously manifest in organizations, for example, through values, symbols, rituals, and expectations, b) guide and shape organizations', groups' and employees' aims, behavior, performance and thinking, and c) are learned through socialization and/or organizational membership (Mauno & Ruokolainen, 2005). Moreover, there are several different theoretical models of organizational culture. Those most referred to are, perhaps, the Competing Values Framework by Cameron and Quinn (1999), the Cultural Dynamics model by Schein (1985, 1990) and the so called Onion Model by Hofstede (2001). The last of these is applied here, as it profiles organizational cultural practices at the organizational level and includes dimensions rather similar than those used in this study.

In Hofstede's (1998, 2001; Hofstede, Neuijen, Ohayv, & Sanders, 1990) model, shared values form the core of an organizational culture. These values are, however, invisible, unconscious and rarely discussable, and thus too abstract to observe and study (Hofstede, 1998; Hofstede et al., 1990). The visible and observable part of an organizational culture is manifested in practices which are reflections of organizational symbols, heroes and rituals (Hofstede, 1998; Hofstede et al., 1990). Hofstede (1998, 2001) has shown that at the national level cultural differences reside mostly in values, but when comparing organizational cultures inside a country, organizations differ mainly in the practices that they value and that are learned through socialization at the workplace. He distinguishes six organizational cultural dimensions that could be found in an organization: 1) process-oriented versus result-oriented (i.e., concern with means vs. concern with goals), 2) employee-oriented versus job-oriented (i.e., concern for people vs. concern for getting the job done), 3) parachial versus professional (i.e., employees' identity tied to organization vs. employees' identity tied to professional competence), 4) open system versus closed system (i.e., organization and people are open to newcomers and outsiders vs. organization and people are felt to be closed and secretive), 5) loose versus tight control (i.e., amount of internal structuring in the organization), and 6) normative versus

pragmatic (i.e., implementation of inviolable rules, organizational procedures vs. market driven, customer oriented).

A variety of empirical studies have focused on the relationship between organizational culture and organizational commitment. The results have varied according to the definitions and manifestations of organizational culture used. In studies concentrating on organizational culture manifested in organizational cultural values, perceived organizational visible practices (i.e., rituals and operational practices specific to the organization) and behavioral norms and expectations (i.e., norms and rules regulating an individual's behavior in the organization), as it is also the case in this study, three main themes that have associations with organizational commitment have frequently been reported.

The first of these is the theme of humanistic, supportive or people-oriented values/practices. These values and practices emphasize, for instance, concern for people, employee development, trust, encouragement, collaboration, teamwork, participation, fairness and affiliation. These values and practices have been found to have a positive effect on employees' general organizational commitment (e.g., Glisson & James, 2002; Kalliath, Bluedorn, & Strube, 1999; Lok & Crawford, 1999, 2004; Ostroff, Shin, & Kinicki, 2005; Silverthorne, 2004) or on their affective and normative commitment (e.g., Finegan, 2000; Meyer et al., 2010; Rashid, Sambasivan, & Johari, 2003; Vandenberghe & Peiró, 1999). The second theme concerns values and practices that emphasize task, innovation and business realities. In such organizations, striving toward growth, risk-taking, creativity, competitiveness, efficiency, productivity, performance, achievement, enthusiasm, and vision are accorded high value. Values and practices like these have been shown to improve employees' organizational commitment (e.g., Glisson & James, 2002; Kalliath et al., 1999; Lok & Crawford, 1999, 2004; Ostroff et al., 2005; Silverthorne, 2004) or their affective and normative commitment (e.g., Finegan, 2000; Meyer et al., 2010; Vandenberghe & Peiró, 1999). Finally, the third group of values and practices that commonly emerge in studies of organizational culture emphasizes rules and hierarchy. The focus is thus on values and practices referring to internal processes, bureaucratic control, authority, stability, formal rules and procedures, cautiousness, obedience, low level of flexibility, regulations, and avoidance of conflict. The studies investigating the relationships between hierarchical and bureaucratical values/practices and organizational commitment have usually reported a decrease in employees' general organizational commitment (Glisson & James, 2002; Silverthorne, 2004) or affective commitment (e.g., Vandenberghe & Peiró, 1999).

To sum up, psychosocial job characteristics as well as the organizational culture can all have either positive or negative associations with employees' organizational commitment or, especially, affective commitment. The majority of the previous empirical studies have, however, been cross-sectional, and thus unable to draw conclusions about causality between the phenomena. Moreover, the previous studies have relatively often treated organizational commitment as a unidimensional construct and measured it either at a general level or through affective commitment. In this study the relationships between job/work charac-

teristics and two organizational commitment dimensions (i.e., affective and normative commitment) are also examined longitudinally.

1.3.2 Age as an antecedent

Age has been seen as an important factor that influences differences in what employees want from work and how committed they are to their organizations (Finegold et al., 2002; Ng & Feldman, 2010b; Rhodes, 1983). Several studies have shown positive association between an employee's age and either general organizational commitment (e.g., Cohen, 1992; Hackett, Lapierre, & Hausdorf, 2001; Mauno et al., 2006; Ng, Butts, Vandenberg, DeJoy, & Wilson, 2006; Rhodes, 1983) or different commitment dimensions (e.g., Cohen, 1999; Hackett, Bycio, & Hausdorf, 1994; Meyer et al., 2002; Ng & Feldman, 2010ab). Thus, the older employees are, the more organizationally committed they tend to be. The literature offers several theoretical explanations and mechanisms for why and how age relates to organizational commitment. Of these explanations, the career stage and birth cohort models are perhaps the most frequently applied, and these are briefly introduced next. In addition, the psychological contract and socioemotional selectivity theories may help to explain the linkages between an employee's age and commitment. These theories are discussed later in Chapter 1.4.4.

First, changes in employees' *career stages* over time may be reflected in their organizational commitment. For instance, compared to employees in the early career stage, those in the middle and later career stages may more often have jobs that include broad organizational roles and responsibilities, consulting and guidance (Finegold et al., 2002). Consequently, employees in these later career stages may also have higher job autonomy and decision-making latitude, and they may receive more organizational rewards (e.g., challenging job assignments, seniority increments, pension benefits, promotions). Altogether, these positive job features and perceptions of investments tend to accumulate with employees' age and seniority, which, in turn, may account for their higher organizational commitment (e.g., Koeber & Wright, 2001; Meyer & Allen, 1984; see also Hedge, Borman, & Lammlein, 2006).

Second, the *birth cohort effect* may offer an explanation for the age – organizational commitment relationship (Rhodes, 1983). On this reasoning, employees in different birth cohorts differ from each other in their professional identities and employment preferences because the prevailing societal, cultural and economic conditions behind the cohorts vary (Finegold et al., 2002; Loughlin & Barling, 2001). The cohort effect may, for example, be seen among older employees in a stronger emphasis on Protestant work ethic (see Hedge et al., 2006) or different views on the value of work (Finegold et al., 2002, Meyer & Allen, 1997), and hence stronger organizational commitment.

1.4 The theoretical models utilized in the present study

Theoretical justifications for the model in which job- and organizational-related characteristics are treated as predictors of organizational commitment can be derived from the social exchange theory (Blau, 1964; for a review, see Cropanzano & Mitchell, 2005) and the norm of reciprocity (Gouldner, 1960). In brief, these concepts emphasize that gestures of goodwill, helpfulness and favor create a moral obligation to a recipient to reciprocate the favorable treatment at some point in the future (e.g., Cropanzano & Mitchell, 2005; Settoon, Bennett, & Liden, 1996; Wayne et al., 2009). Theories and models that nowadays utilize the social exchange theory and the norm of reciprocity in explaining employees' working attitudes and behavior are the organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986) and psychological contract (Rousseau, 1989) theories. These are introduced next in more detail. In addition, two job resource-oriented models, i.e., the JD-R model (Demerouti et al., 2001) and Conservation of Resources (henceforth COR) theory (Hobfoll, 1989; Hobfoll & Shirom, 2001), are discussed. Finally, the theories explaining the role of an age in organizational commitment context are briefly presented.

1.4.1 Organizational support theory in explaining organizational commitment

The organizational support theory (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002) describes the social exchange relationship between employees and organizations and, furthermore, the development of perceived organizational support (henceforth POS). It assumes that the development of POS is encouraged by employees' tendency to assign humanlike characteristics to an organization (Aselage & Eisenberger, 2003; Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). As a result of this organizational personification, employees may see their favorable or unfavorable treatment as an indication of the extent to which the organization favors or disfavors them (Aselage & Eisenberger, 2003; Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). In addition, if employees believe that organizational rewards and favorable job conditions are based more on the organization's voluntary actions than external constraints, such as union negotiations or regulations, the more these conditions contribute to POS (Rhoades & Eisenberger, 2002). Altogether, POS has commonly been defined as employees' global belief concerning the extent to which the organization cares about their well-being and values their contribution to the organization (Eisenberger et al., 1986). Furthermore, the whole history of employees' treatment by an organization influences employees' assessment of POS (Aselage & Eisenberger, 2003).

According to the organizational support theory, three different psychological processes underlie the consequences of POS (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002): first, based on the reciprocity norm, POS can create an obligation to an employee to care about the organization's welfare and

help the organization to reach its goals (i.e., people should help those who have helped them, see Gouldner, 1960). Second, the caring, approval and respect included in POS can fulfill an employee's socioemotional needs, leading her/him to incorporate organizational membership and role status into her/his social identity and thereby develop a positive emotional bond (e.g., affective commitment) to the organization. Third, POS can raise an employee's expectancy that the organization recognizes and rewards improved performance. These processes should benefit both employees, by, for example, increasing job satisfaction and, heightening positive mood, and organizations, by improving commitment and performance, and reducing employee turnover (e.g., Bishop, Scott, & Burroughs, 2000; Eisenberger et al., 1986, Eisenberger, Fasolo, & Davis-LaMastro, 1990; Panaccio & Vandenberghe, 2009; Rhoades & Eisenberger, 2002; Rhoades, Eisenberger, & Armeli, 2001; Wayne et al., 2009). With regard to organizational commitment in particular, previous empirical findings have reported positive relationships between POS and affective commitment (e.g., Baranik, Roling, & Eby, 2010; Dawley, Andrews, & Bucklew, 2008; Lee & Peccei, 2007; Maertz, Griffeth, Campbell, & Allen, 2007; Panaccio & Vandenberghe, 2009; Rhoades et al., 2001; Vandenberghe, Bentein, & Stinglhamber, 2004) and between POS and normative commitment (e.g., Dawley et al., 2008; Maertz et al., 2007; Panaccio & Vandenberghe, 2009).

The organizational support theory and POS offered a useful theoretical framework for this study. The job and organizational resources explored in this dissertation (e.g., job control, humanistic organizational culture) can be seen to reflect organizational supportiveness, whereas job demands (e.g., job insecurity, work-to-family conflict, rule-oriented culture) can be seen as manifestations of a non-supportive organization. It is likely that employees, who receive highly valued resources from their organizations, and thus experience high organizational supportiveness, feel obliged, on the basis of the norm of reciprocity, to help the organization to reach its goals by committing to it. Job demands, on the other hand, may diminish employees' willingness to commit to the organization. Moreover, job resources communicating approval and respect for employees may foster employees identification with the organization and create an emotional bond between the organization and its employees (i.e., commitment), whereas in the case of high job demands the bond may not develop.

1.4.2 Psychological contract theory in the context of organizational commitment

The psychological contract theory (Rousseau, 1989, 1995) is another theory emphasizing social exchange processes and the norm of reciprocity in the establishment and maintenance of the employee – employer relationship. Rousseau (1989, 1995) has defined the psychological contract in terms of employees' belief in the existence of mutual obligations between themselves and the organization (for reviews of the concept, see Conway & Briner, 2005; Ruotsalainen & Kinnunen, 2009). A psychological contract comes into being when the employee believes "a promise has been made and a consideration offered in exchange for

it, binding the parties to some set of reciprocal obligations" (Rousseau, 1989, p. 123). In other words, based on the resources promised to the employees in exchange for the employees' contribution to the organization (i.e., mutual obligations), the employees form a psychological contract with the organization (Aselage & Eisenberger, 2003). Psychological contracts are perceptual, subjective, unwritten, not necessarily shared by other party to the exchange (Coyle-Shapiro & Kessler, 2000; Rousseau 1989; Zhao, Wayne, Glibkowski, & Bravo, 2007), and have traditionally been divided into transactional and relational contracts (Rousseau, 1995). Transactional contracts are characterized by specific, short-term exchanges of economic resources that require limited involvement by the organization and employee (e.g., rapid advancement, merit pay), whereas relational contracts emphasize broad, long-term exchanges of socioemotional resources (e.g., job security, career development) (Aselage & Eisenberger, 2003; Coyle-Shapiro & Kessler, 2000).

Psychological contracts can also be violated or breached. According to Rousseau (1989), contract breach is a failure of an organization to respond to an employee's contribution in a way the employee believes they are obliged to do. Contract breach is, thus, an employee's belief (cognition) that the organization has failed to fulfill its obligations to her/him (Morrison & Robinson, 1997). Feelings of contract violation, on the other hand, refer to the affects following the breach (Morrison & Robinson, 1997; see also Bal, De Lange, Jansen, & Van Der Velde, 2008). The affective events theory (Weiss & Cropanzano, 1996) indicates that negative events at the workplace cause negative emotional reactions (e.g., anger, frustration, mistrust), in turn reflecting formation of work attitudes and behaviors (see Bal et al., 2008; Zhao et al., 2007). Failure to meet the terms of the psychological contract damages the relationship between the employee and the organization and violates the trust on which the contract is based (Rousseau, 1989). In addition, the psychological contract theory indicates that employees may have more negative reactions to contract breaches which appear to be wilful than those that the organization has no control over or that result from misunderstanding (Morrison & Robinson, 1997; Rousseau, 1995, see also Aselage & Eisenberger, 2003). The psychological contract theory also indicates that contract breach is a key determinant of employee dissatisfaction and poor performance (Aselage & Eisenberger, 2003). In relation to organizational commitment, the previous empirical studies have shown that fulfillment of the contract can foster employees' organizational commitment (e.g., Coyle-Shapiro & Kessler, 2000; Sturges, Conway, Guest, & Liefooghe, 2005), whereas contract breach/violation may diminish it (e.g., for meta-analyses, see Bal et al., 2008; Zhao et al., 2007; see also Ng et al., 2010).

In this study the psychological contract theory can be adduced to explain the following processes: first, in the case of fulfillment of the relational psychological contract, the employees believe that the organization has provided them with valuable job resources (e.g., good possibilities for job control, a humanistic organizational culture) and they reciprocate by showing higher levels of organizational commitment. Second, if the relational psychological contract is perceived by the employees as breached or violated, as can be the case in a situa-

tion of high job demands (e.g., high job insecurity, high workload, high work-family conflict), it may result in feelings of anger and disappointment, and leading to a decrease in or loss of commitment to the organization.

Comparisons between the organizational support and psychological contract theories

The organizational support (POS) and psychological contract theories share some similarities. They both emphasize the exchange of highly valuable resources and the norm of reciprocity in the employee – organization relationship (Aselage & Eisenberger, 2003). In addition, they regard fairness of treatment (e.g., in the form of procedural justice) as an essential factor for the development and maintenance of this relationship and emphasize its many positive consequences (Aselage & Eisenberger, 2003; Rhoades & Eisenberger, 2002; Rousseau, 1995; see also Panaccio & Vandenberghe, 2009; Sturges et al., 2005). The theories also assume that employees appreciate favorable treatment received from the organization more if it is based on voluntary actions than involuntary actions (Aselage & Eisenberger, 2003; Eisenberger et al., 1986; Morrison & Robinson, 1997; Rousseau, 1995).

The two theories also differ from each other in certain respects. According to the POS theory, if employees feel that the organization cares about them and offers them aid and support when they need it, then this tends to create feelings of obligation to the organization (Aselage & Eisenberger, 2003; Eisenberger et al., 1986). The psychological contract theory, in turn, posits that the exchange occurs in the form of mutually fulfilled obligations (Aselage & Eisenberger, 2003; Rousseau, 1995). According to the psychological contract theory, the type of promises, the obligations expected, and the degree to which the promises are fulfilled influence the strength of the bond between the employee and organization (Aselage & Eisenberger, 2003; Rousseau, 1995). The POS theory, on the other hand, does not pay much attention to what is promised or expect particular type of behavior from employees to reciprocate favorable treatment (Aselage & Eisenberger, 2003). Instead, it proposes that favorable treatment alone strengthens the relationship between the employee and organization (Aselage & Eisenberger, 2003). The POS theory also regards favorable treatment received from organizational agents (e.g., supervisors, recruiters) as favorable acts by the organization itself, whereas the psychological contract theory assumes that promises made by organizational agents are also made in their own names (Aselage & Eisenberger, 2003; see also Rousseau, 1989).

1.4.3 Resource-oriented models and organizational commitment

The theoretical justifications for the relationship between the phenomena in focus in this study can also be derived from the JD-R model (Demerouti et al., 2001; see also Bakker, Demerouti, & Euwema, 2005; Bakker et al., 2003, 2010) and COR theory (Hobfoll, 1989; Hobfoll & Shirom, 2001), both of which emphasize the important role of job resources.

First, according to the JD-R model, lack of resources and high or unfavorable job demands (as well as the strain reactions associated with these) may directly lead employees to experience health problems, exhaustion, reduced motivation, impaired work attitudes (e.g., reduced organizational commitment) and withdrawal behavior (e.g., Bakker et al., 2003, 2005; Demerouti et al., 2001; Llorens et al., 2006). High job resources, on the other hand, may reduce job demands and/or the physiological and psychological costs associated with them, stimulate personal growth, learning and development (i.e., intrinsic motivational role) and help employees to achieve their work goals (i.e., extrinsic motivational role), whereas in the situation of poor resources the opposite holds, i.e., employees may confront difficulties in coping with the negative influences of their job demands and attaining their work-related goals as well as feel failure and frustration (Bakker et al., 2003, 2010; Demerouti et al., 2001).

In applying the JD-R model in this study, it is assumed that employees who experience high job resources (i.e., job control, humanistic organizational culture) probably increase their commitment to the organization. Job demands (i.e., job insecurity, work-to-family conflict, workload, hierarchical culture) at work may, on the other hand, lead to a decrease in organizational commitment.

The COR theory is also a resource-oriented model, according to which employees tend to retain, protect and build resources that they value (Hobfoll, 1989, 2002). These resources can be almost anything that the individual personally values, and can be divided into personality characteristics (e.g., self-esteem, optimism), conditions (e.g., well-being, employment), objects (socioeconomic status, housing), and energies (e.g., time, money) (Hobfoll, 1989, 2002). As resources can change over time, the theory concentrates on the loss and gain cycles of resources (Hobfoll, 2002). That is to say, positive experiences or resources are likely to accumulate, creating a positive spiral of resources, whereas losing an important resource causes a loss of other resources, leading to a negative spiral of resource loss. Resources are also important in the context of loss. For instance, individuals with a strong resource pool are less susceptible to resource loss and are more capable of problem-solving in stressful situations (Hobfoll, 2002). The COR theory has recently been utilized to understand the relationship between job attitudes and job and work characteristics (see e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Halbesleben, Harvey, & Bolino, 2009; Panaccio & Vandenberghe, 2009; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

In this study, job control, a humanistic organizational culture and organizational commitment could be seen in light of the COR theory as positive job- and organizational-related resources that the employees highly value and which may give rise to a positive spiral of other resources. For example, people who are highly committed may be able to gain other job-related resources (e.g., high job control, seeing the organizational culture as more humanistic) or vice versa. In addition, employees with high resources may also experience their job demands (e.g., job insecurity, work-to-family conflict, workload) as less harmful.

1.4.4 Theories explaining the moderating role of age in organizational commitment context

The psychological contract (Rousseau, 1989, 1995) and socioemotional selectivity (Carstensen, Isaacowitz, & Charles, 1999) theories can be utilized when explaining the moderating role of employee's age in the job characteristics – organizational commitment relationship.

First, it has been stated that the employees in different career stages also have different psychological contracts (Rousseau, 2001). This means that veteran and older employees usually have more stable psychological contracts, or contracts that are more resistant to change, than those of younger and less experienced workers because the psychological contracts of older employees have developed during their long tenure (Rousseau, 2001). Older employees may also have more realistic expectations about what to receive from the organization, whereas younger employees usually enter an organization with high expectations, adapting to reality over time (De Vos, Buyens, & Schalk, 2003; Hedge et al., 2006; Thomas & Anderson, 1998). Therefore, older employees may experience changes in their employment situation or breaches of their psychological contract as less harmful compared to younger employees (see also Bal et al., 2008). A meta-analysis by Bal and colleagues (2008) has supported this by showing that, compared to younger employees, older employees experienced the negative effect of contract violation on affective commitment as less harmful.

The concepts of contract malleability and contract replicability (Ng & Feldman, 2008, 2009) have been introduced to explain how age affect employees' reactions to psychological contract breaches and, furthermore, their work attitudes. Contract malleability refers to the extent to which employees can tolerate deviations in contract fulfilment without perceiving the psychological contract as violated. Contract replicability in turn refers to employees' view of whether their current psychological contracts could be replicated in other organizations. Ng and Feldman (2009) assumed that older employees perceive their psychological contracts as more malleable than do their younger colleagues, as they understand and control their emotions better (i.e., their emotional reactions are less intense; see the socioemotional selectivity theory discussed later), process positive information more deeply and place more value on social relationships outside work than utilitarian activities at work (e.g., financial reward). With regard to contract replicability, older employees are suggested to have less faith than their younger counterparts that their contract could be easily replicated elsewhere (Ng & Feldman, 2009; see also Lippmann, 2008). According to Ng and Feldman, this is because older employees may have less confidence about their ability to change their work environment (i.e., weaker self-efficacy), they are often stereotyped by others as more rigid and less productive and creative employees, and it seems to be harder for them than their younger colleagues to find a similar new job after redundancy (see also Hedge et al., 2006). There is some empirical evidence that in a situation of contract unreplicability older employees have proved to be more affectively and normatively committed to their organizations than younger employees (Ng & Feldman, 2008). However, Con-

way (2004) found that employees' perceptions of employability (i.e., skill development in order to secure employment elsewhere) impacted positively on the affective commitment of employees aged 41 or over.

Second, the socioemotional selectivity theory (Carstensen et al., 1999) has been utilized to explain employees' age-related emotional reactions to different work and organizational phenomena (see also Ng & Feldman, 2010b). The theory is a life-span theory of social motivation (Carstensen et al., 1999; see also Carstensen, Fung, & Charles, 2003; Löckenhoff & Carstensen, 2004) which addresses perceptions of the future as either limited or open-ended as predictors of the goals that employees select and pursue and the social partners they seek in order to fulfill these goals. It has been stated that if employees perceive time as open-ended, they prioritize growth, future- and learning-oriented as well as knowledge-related goals (i.e., acquiring new information or social interactions), whereas under conditions in which time is perceived as limited, employees focus on achieving short-term, present-oriented, and emotion-related goals (i.e., existing relations) (Carstensen et al., 1999, 2003; see also De Lange et al., 2010). The differences that aging brings in relation to individual's resources, expectations, goals, needs and employment priorities (e.g., commitment) are also explained by the Selection, Optimization and Compensation theory (Baltes, 1997; Baltes, Staudinger, & Lindenberger, 1999; Freund & Baltes, 1998). For example, the resources related to "growth and promotion" goals (e.g., job variety, training) have been argued to decrease with age, whereas resources for the maintenance and regulation of "loss or prevention" goals (e.g., job security, skill utilization) have been stated to increase with age (Baltes et al., 1999; see also De Lange et al., 2010; Finegold et al., 2002; Kooij et al., 2009). Altogether, it is possible that for older employees organizational commitment represents a meaningful goal or situation that they seek to maintain.

The socioemotional selectivity theory proposes that older employees are more prone to describe their future as limited, and thus are less concerned about it than their younger colleagues (Carstensen et al., 1999, 2003). It also states that older employees have usually made good choices over their career span, which has helped them to gain good positions, high job status and/or a job they enjoy and in which they can experience positive job attitudes (Carstensen et al., 1999; Ng Feldman, 2010b). Finally, the theory argues that the knowledge that time is limited influences employees' emotional experiences rendering them more positive (Carstensen et al., 1999). Accordingly, older employees experience fewer negative emotions, report less negative affectivity and are better in self-regulating their emotions after negative events (e.g., stressful job situations) than younger employees (Carstensen et al., 1999, 2003; Charles, Reynolds, & Gatz, 2001; Ng & Feldman, 2010b; see also De Lange et al., 2010).

In this study, the psychological contract and socioemotional selectivity theories can be applied as follows: older employees may experience high job insecurity, high workload and high work-to-family conflict as less harmful from the breach of psychological contract point of view and be better able to regulate negative emotions caused by these stressful job situations than their younger

colleagues. Older employees' better tolerance of uncongenial job situations may, further, reflect a less severe decrease in their organizational commitment.

1.5 Aims and hypotheses of the present research

The main purpose of this dissertation was to examine organizational and job-related characteristics as antecedents of employees' organizational commitment. The study was based on the mixed method approach by utilizing both qualitative and quantitative data collected from three different organizations; a public health care district (HCD), an ICT company and a cartonboard mill. Altogether, this dissertation consists of four individual studies (see Figure 3), each of which seeks to answer the key question presented above but from different perspectives. The specific aims of the separate studies including the research questions and hypothesis are introduced next in more detail.

Study I was designed to increase, through qualitative interviews, understanding of organizational commitment both by examining the interpretations given to it by the employees and by identifying its antecedents. It sought to answer two research questions: 1) How do the informants interpret and make sense of the concept of organizational commitment? 2) What factors might increase or decrease it? The focus of this study was thus on employees' subjective meanings and experiences concerning organizational commitment, and the approach to the phenomenon was both explorative and interpretative (see e.g., Denzin & Lincoln, 1994; Dey, 1993; Patton, 1990). Previous studies focusing on organizational commitment from a qualitative perspective have been rare and have utilized data from rather similar organizations (e.g., a manufacturing plant, aerospace/high-tech organizations (cf., Singh & Vinnicombe, 2000; Randall, Fedor, & Longenecker, 1990). My study broadens this perspective by clarifying how employees nowadays understand commitment and by collecting the data from two organizations (i.e., HCD and ICT company) representing different business domains. Because this study was qualitative, I did not pose any specific hypotheses consistent with the traditions of qualitative research.

The aim of *Study II* was to clarify whether certain dimensions of organizational culture would relate to organizational commitment by utilizing cross-sectional quantitative data sets. Relationships of these kinds have already been explored in some prior studies (see e.g., Finegan, 2000; Glisson & James, 2002; Meyer et al., 2010; Silverthorne, 2004). However, these studies have some limitations, which the present study sought to address. My study, for instance, extended the existing research beyond countries in the Anglo-American world and also compared three different organizations, instead of specific occupational groups and smaller samples such as have usually been investigated in previous research. Moreover, this study applied Organizational Culture Profile survey (Ashkanasy, Broadfoot, & Falkus, 2000), which has not previously been utilized in this type of research context.

By applying a rather new statistical methodology (i.e., factor mixture model analysis) (e.g., Muthén, 2001; Muthén & Muthén, 2000) it was hypothesized (*H1*) that three types of cultural classes can be identified among employees in the three organizations. More specifically, a people-oriented class, hierarchy-oriented class and task-oriented class were expected to emerge. These classes are distinct, unobserved latent classes of employees whose members closely resembling each other with respect to how they perceive the organizational culture. Simultaneously, these classes differ from each other as much as possible. The hypothesis was based on previous organizational cultural theories, measures and empirical studies (e.g., Cameron & Quinn, 1999; Cooke & Szumal, 1993; Hofstede, 2001) in which three cultural dimensions describing a people- (variously labeled, e.g., humanism, supportiveness, social relations), hierarchy- (variously labeled, e.g., bureaucracy, power distance, authority) and task- (variously labeled, e.g., goal-, performance-, result-, innovation-) orientation usually exist (see also Berson, Oreg, & Dvir, 2008). For example, a people-orientation has conceptual similarity with the clan culture defined by Cameron and Quinn (1999), the employee-orientation emphasized by Hofstede et al. (2001) and the constructive culture included in Cooke and Lafferty's (1987) scale. On the other hand, the hierarchy- and task-orientations have parallel features with the hierarchy - and market cultures (Cameron & Quinn, 1999), aggressive-defensive culture (Cooke & Lafferty, 1987) and control- and result-orientations (Hofstede et al., 1990).

When combining the constructs of cultural classes and organizational commitment, it was hypothesized (*H2*) that the people-oriented and task-oriented classes would relate to employees' higher organizational commitment, whereas the hierarchy-oriented class would relate to impaired commitment. For example, on the basis of POS theory (Eisenberger et al., 1986), people-oriented and task-oriented cultures can be seen as reflecting organizational supportiveness as they indicate that the organization cares about its employees' well-being (people-orientation) and values their contribution (task-orientation) in achieving the organizational goals. A hierarchy-oriented culture, on the other hand, may be associated with a non-supportive organization (Eisenberger et al., 1986). According to the JD-R model (Demerouti et al., 2001), a people-oriented culture can be considered as a highly valuable job resource which has a positive association with employee's commitment, whereas a hierarchy-oriented culture can be seen as a job demand having a negative effect on commitment. Empirical studies to date have shown that the organizational culture in which the people- and task-orientation are valued is likely to increase employees' organizational commitment, whereas a hierarchy-oriented culture can weaken it (e.g., Glisson & James, 2002; Lok & Crawford, 1999, 2004; Silverthorne, 2004; Vandenberghe & Peiró, 1999).

The first aim of *Study III* was to examine whether three specific job demands that strongly characterize present-day working life, i.e., workload, job insecurity and work-to-family conflict, would be associated with employees' organizational commitment. Applying the POS theory (Eisenberger et al., 1986), high job insecurity, excessive workload and work-to-family conflict can be seen

as reflecting a non-supportive organization which in turn may associate negatively with employees' organizational commitment. According to the JD-R model (Demerouti et al., 2001), these three job characteristics can be seen as high job demands, and thus may associate negatively with organizational commitment. On the basis of the psychological contract theory (Rousseau, 1995), employees may experience the psychological contract as breached or violated if the organization does not offer them a reasonable amount of job security and workload as well as good possibilities to balance work and family. In such a situation, employees may feel, for example, disappointed, frustrated or angry and consequently reduce their commitment to the organization. As empirical research (e.g., Allen et al. 2000; Bakker et al., 2010; Cheng & Chan, 2008; De Cuyper & De Witte, 2006a; Meyer et al., 2002; Sverke et al., 2002) have also shown support for these theories, it was hypothesized (*H3*) that, job insecurity, work-to-family conflict and workload would be negatively related to organizational commitment (i.e., a main effect of job demands on organizational commitment).

Moreover, as little research has been conducted on the role of age in the job demands – organizational commitment relationship (cf., Cheng & Chan, 2008; Claes & Van De Ven, 2008; Finegold et al., 2002; Gordon et al., 2007), the second aim of Study III was to investigate whether these linkages would be moderated by an employee's age. From a practical perspective it is important to know whether age buffers against the negative effect of job demands on organizational commitment and whether there is scale-based variation in these associations (e.g., are some job demands more harmful than the others at different ages?). Such information would, for instance, help organizations to target their development activities (e.g., training, working time arrangements) at the right age groups.

Based on the various theoretical arguments presented above (e.g., birth cohort effect, older employees' higher career stage) and the previous meta-analyses (Cohen, 1992; Mathieu & Zajac, 1990; Meyer et al., 2002; Ng & Feldman, 2010b; Rhodes, 1983), it was hypothesized (*H4*) that older employees would show higher organizational commitment compared to their younger counterparts (i.e., a main effect of age on organizational commitment). Furthermore, the final hypothesis (*H5*) stated that older age would buffer against the negative effects of job demands (i.e., job insecurity, work-to-family conflict, and workload) on organizational commitment (i.e., age and job demands would have interaction effects on organizational commitment). Theoretical justifications for the age as a moderator can be derived from the socioemotional selectivity (Carstensen et al., 1999) and psychological contract (Rousseau, 1995) theories. Thus, older employees' organizational commitment may decrease less in a situation of high levels of job insecurity, work-to-family conflict and workload, as they experience fewer negative emotions, report less negative affectivity and are better able to self-regulate their emotions after negative events (e.g., stressful job situations) than their younger colleagues (Carstensen et al., 1999, 2003; Charles et al., 2001; see also De Lange et al., 2010). Moreover, older employees may have more tolerance against unfulfilled promises at work (i.e., job insecuri-

ty, work-to-family conflict, high workload) than their younger counterparts (Ng & Feldman, 2009; see also the meta-analysis by Bal et al., 2008).

The purpose of *Study IV* was to clarify whether four currently relevant work characteristics, i.e., job insecurity, work-to-family conflict, job control and a humanistic organizational culture, are prospectively related to employees' organizational commitment by utilizing two-year follow-up data gathered in one of the studied organizations (HCD). Few longitudinal studies on these phenomena exist (cf., Kinnunen et al., 2000; Meyer et al., 2002; Parker et al., 2001), and hence this study provided broader and more reliable knowledge on the direction of the predictive relationships between them. On the basis of the POS (Eisenberger et al., 1986) and psychological contract (Rousseau, 1995) theories as well as JD-R model (Demerouti et al., 2001), it was expected first (*H6*) that job insecurity and work-to-family conflict as manifestations of a non-supportive organization, contract breaches and job demands at T1 would have a negative effect on organizational commitment at T2, whereas job control and a humanistic organizational culture as manifestations of a supportive organizations, contract fulfillment and job resources at T1 would have a positive effect on organizational commitment at T2.

Because each construct was measured twice in the follow-up data, it also offered a possibility to test for reverse causality between the target phenomena, that is, whether organizational commitment at T1 predicts perceived work characteristics at T2. It was hypothesized (*H7*) that (high) organizational commitment would show a prospective link with higher job control, more humanistic organizational culture, lower job insecurity and, lower work-to-family conflict reported in the follow-up. The theoretical basis for this assumption has its foundation in the COR theory (Hobfoll, 1989; Hobfoll & Shirom, 2001). Accordingly, organizational commitment is a positive organization-related resource, and highly committed employees may be able to gain other job-related resources (e.g., high job control, perception of the organizational culture as more humanistic) or experience their job demands (e.g., job insecurity, work-to-family conflict) as less harmful. Thus, high organizational commitment can start a resource spiral or chain which is likely to lead to other work-related resources.

The seven hypotheses addressed in this study can be summarized as follows:

H1: Three cultural classes, i.e., a people-oriented class, hierarchy-oriented class and task-oriented class, can be identified on the basis of the data obtained from the employees in the three organizations (Study II).

H2: The people-oriented and task-oriented classes are related to employees' higher organizational commitment, whereas the hierarchy-oriented class is related to impaired organizational commitment (Study II).

H3: Job insecurity, work-to-family conflict and workload are negatively related to organizational commitment (Study III).

H4: The older employees show higher organizational commitment compared to their younger colleagues (Study III).

H5: Older age buffers against the negative effects of job demands (i.e., job insecurity, work-to-family conflict, and workload) on organizational commitment (Study III).

H6: Job insecurity and work-to-family conflict at T1 have a negative effect on organizational commitment at T2, whereas job control and a humanistic organizational culture at T1 have a positive effect on organizational commitment at T2 (Study IV).

H7: High organizational commitment (T1) will show a prospective link with higher job control, a more humanistic organizational culture, lower job insecurity, and lower work-to-family conflict reported at follow-up (T2) (Study IV).

Figure 3 illustrates the conceptual framework of the study with the main constructs and associations examined in Studies I-IV.

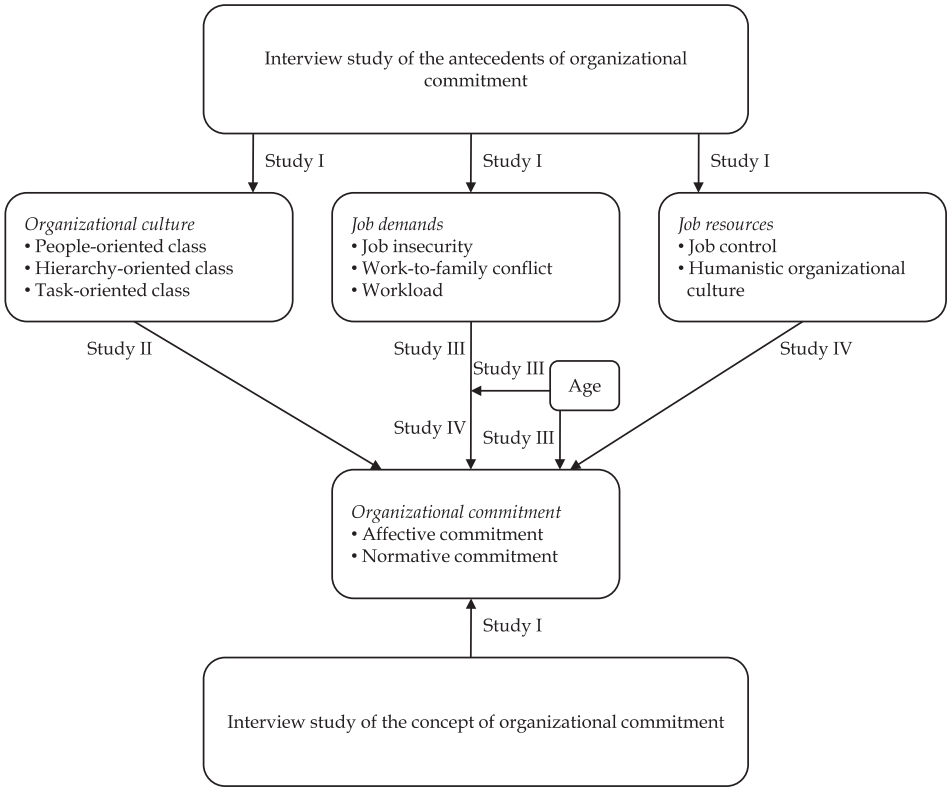


FIGURE 3 The framework of the study

2 METHOD

2.1 Participants and procedures

This study is a part of a larger follow-up project "Organizational Culture and Well-being", which was conducted among three organizations, i.e., a public health care district (HCD), an ICT company and a cartonboard mill, between 2003 and 2006 (see Mauno, 2010; Mauno et al., 2006, Mauno, Kinnunen, & Ruokolainen, 2005b, 2007). The project was financially supported by the Emil Aaltonen Foundation and the Finnish Work Environment Fund. My role in this research project is described in Appendix 1. The organizations represented both the private and public sectors. They also differed from each other in size, personnel and branch of the economy. The organizations were intentionally chosen to be different in many important respects as one aim of the research project was to validate the organizational culture survey included in it. The ICT company and the HCD were located in central Finland, whereas the cartonboard mill in south-east Finland.

At the time of the data collection, the HCD was the largest non-university, public hospital in Finland, providing medically specialized healthcare services in its seven units located in three different towns and employing almost 3 200 persons. The HCD functioned in eight different domains (e.g., operative and conservative medical services, psychiatry, administration) all of which included several specialist fields (e.g., surgery, paediatric, radiology, technical support, laundry service). Altogether, the study participants represented 36 different areas of responsibility. The average group size was 20 persons. The HCD was also in the joint ownership of 30 municipalities and its history dated back to 1950.

The ICT company (i.e., the mother company) consisted of two companies – one in the telecommunications sector and one in the IT sector – which had merged in the year 2000 and which had different cultural and historical backgrounds. The telecommunications company had had a long and rather stable history (over 115 years), whereas the IT company was established in 1989. The

ICT company employed about 600 persons and provided information, communication and technology services, communication programs and telephone and telecommunication services. In addition, the ICT company was divided into eight different business units (e.g., telephone and telecommunication, software solutions, teleselling) with an average group size of 37 persons. Since the merger, the company had carried out several changes in structure, strategy, and personnel. In 2003-2004 (during the interview period, Study I) the IT company had undergone large-scale downsizing and realignment.

The cartonboard mill, in turn, was the smallest of the three organizations in this study and biggest employer in its hometown, with a workforce of 350 personnel. It consisted of nine departments (e.g., cartonboard machine, automation maintenance, power station, laboratory) with an average group size of 24 persons.The cartonboard mill was also a part of a larger forestry industry group and focused on the manufacture of fully coated folding cardboard.

Three datasets were gathered. For *Study I* qualitative interview data were collected over a period of five months (from October 2003 to February 2004) from 16 key informants in the HCD and 15 in the ICT company. In the ICT company, in order to increase the total number of informants, two interviews were conducted as a pair-interview. The mill was not included in interview study owing to the long geographical distance between the interviewees and interviewers. In both organizations the interviewees represented upper-level managers, immediate superiors, HR professionals and labor union officials. In addition, in the HCD the informants included occupational health care and industrial safety officers. The interviewees were recommended by liaison officers who acted between the organizations and the researchers throughout the research project. The sampling procedure was based on the idea that these interviewees were more likely to have rich information on research topics due to their positions in their respective organizations.

The background characteristics of the informants by organization showed that in the HCD the vast majority were women (69%) and in the ICT company they were men (87%). The mean age of the informants in the HCD was 52.4 years and in the ICT company 49.9 years. The majority of the informants in the HCD had a university degree (67%), whereas most of the interviewees in the ICT company had completed a vocational education (60%). In the HCD the participants were more often in managerial positions (63%) than in the ICT company (40%). In both organizations the informants' average tenure with their current employer was rather similar, i.e., 20.5 years in the HCD and 20.9 in the ICT company. However, the interviewees in the HCD had worked longer in their current positions (14.2 years) than the informants in the ICT company (8.9).

Participation in Study I was voluntary and based on the interviewees' informed consent. Each eligible informant received an e-mail from the interviewers stating the purpose of the interview and giving an assurance that participation would be voluntary, confidential and anonymous. In addition, they were told what kind of feedback they would receive on the results and when. After the informants had given their consent to the interview, they were also offered

an opportunity to inspect the themes that the interview would cover before the interviews were conducted. This protocol, along with verbal encouragement to speak openly and honestly, was repeated at the beginning of each interview.

Moreover, permission to tape-record the interview was requested. Each interview lasted one to two hours. The interviews were performed by seven interviewers (1 PhD, 2 doctoral students, and 4 undergraduate students), all of whom were informed about the goals and method of the interview during a short interview training session. This training was given to ensure comparability across interviews and interviewers. Nevertheless, it was emphasized to the interviewers that they were allowed to ask interviewees extra and clarifying questions, if necessary. The interview protocol was pilot-tested with two interviewees. The interviews were tape-recorded and transcribed in full, resulting in 410 pages for analysis.

As I was interested in exploring how the interviewees themselves construct or interpret the concept of organizational commitment and its antecedents and what attitudes and experiences they have in relation to them (e.g., Hsieh & Shannon, 2005; Patton, 1990), I chose semi-structured interviews with open-ended questions (e.g., Kvale, 1996; Miller & Glassner, 1997; Tuomi & Sarajärvi, 2003). This method invites informants to make qualitative statements and allows them to shape the course of the interview rather than just passively answering the interviewer's questions (e.g., King, 2004; Kvale, 1996). The interview questions centred around three main themes: 1) organizational culture, 2) occupational well-being and job attitudes, and 3) research findings from the earlier phase of the research project (i.e., the questionnaire study conducted in 2003). It should be noted that organizational commitment was not the main theme of the interview. In fact, only one question focused directly on it (i.e., "The research findings from the baseline measurements showed that the employees' organizational commitment was weak. What might be a reason for this and what could be done in the organization to improve commitment?"). Nevertheless, all the transcribed interview material was utilized and analysed in order to answer the research questions.

Studies II and III were based on the cross-sectional questionnaire data gathered from all three organizations in the first phase of the research project in 2003. In the HCD and mill the code-numbered questionnaires were distributed on paper to the respondents through the organizations' internal mail. The respondents at the ICT company received their code-numbered questionnaires at home by mail, because some of the company's departments were located in different towns. A similar procedure was also followed in the HCD if the respondent had a temporary contract or was on leave of absence. The respondents returned their completed questionnaires in sealed envelopes directly to me. Accompanying the questionnaire, was given a brief introduction to the study, including the purpose of the survey, and assurances that participation would be voluntary, the anonymity of respondents would be respected, and the responses would be treated as confidential. In each organization, after negotiations with employer and employee representatives, bulletins about the research project were posted.

In the ICT company and the mill all the employees participated in the survey. In the HCD, random sampling, by which every second employee was selected, was done because of the high number of employees (N ≈ 3 200). The responses were obtained from 296 employees in the ICT company (response rate 47.7%), 221 employees in the mill (response rate 63.0%) and 735 employees in the HCD (response rate 46.0%). The background characteristics of the respondents by organization are presented in Table 1. The participants in the study sample were representative of those in the total sample in all three organizations with respect to at least two background factors, i.e., gender and age (see also Mauno et al., 2005b, 2007).

Study IV was based on longitudinal follow-up data gathered by code-numbered questionnaires in 2003 (see Studies II, III above) and 2005 from the HCD. The same follow-up data were also collected from the ICT company but not utilized in Study IV, because of the small sample size (n = 88). The follow-up questionnaire was sent to those employees of the HCD who had answered in 2003 and who were still employed in the HCD in 2005 (n = 623). Responses were received from 409 employees (response rate 65.7%). The background characteristics of the respondents in this study are shown in Table 2. According to the demographic characteristics, the longitudinal sample was representative of those in the cross-sectional sample (Studies II, III) – at least in gender, age, education, managerial position and shift work. One previous study has also shown that the respondents in this longitudinal sample did not differ from the respondents in the cross-sectional sample in relation to occupational group (Mauno et al., 2007). In addition, the cross-sectional sample of the HCD represented reasonably well the whole personnel of the HCD in regard to the main background factors (i.e., gender, age, type of job contract, proportion of full-/part-time workers (see Table 1; see also Mauno, Kinnunen, Mäkikangas, & Nätti, 2005b; Mauno et al., 2005b). The main exceptions reported concerned the overpresentation of nursing staff and the under-representation of medical services in the sample (Mauno et al., 2005b, 2007). The research procedure of this study followed that utilized earlier in Studies II and III.

TABLE 1 Background characteristics of the participants in cross-sectional Studies II-III by organizations

Background factors	HDC (n = 735)		ICT (n = 296)		Mill (n = 221)	
	%[1]	%[2]	%[1]	%[2]	%[1]	%[2]
Gender						
Women	87	84	33	25	19	19
Men	13	16	67	75	81	81
Age						
18-24	2	2	7	10	1	2
25-34	7	19	41	47	15	18
35-44	29	31	25	21	27	26
45-54	35	32	21	17	41	38
55-64	17	16	6	5	16	16
Vocational education						
None/course-based	7	-	11	9	27	-
Vocational school	71	-	34	44	66	-
Polytechnic college	11	-	22	21	4	-
University degree	11	-	33	26	3	-
Marital relationship						
Yes	76	-	79	-	79	-
No	24	-	21	-	21	-
Children at home						
None	46	-	57	-	49	-
1	18	-	17	-	20	-
2	22	-	19	-	23	-
3 or more	14	-	7	-	8	-
Type of job contract						
Permanent	80	73	95	97	- [3)]	-
Other	20	27	5	3	- [3)]	-
Managerial position						
No	87	-	70	-	84	-
Yes	13	-	30	-	16	-
Work schedule						
Regular day shift	6	-	91	98	40	-
Other shift	94	-	9	2	60	-
Working time						
Part-time job	7	13	9	10	2	-
Full-time job	93	87	91	90	98	-
	M	*SD*	*M*	*SD*	*M*	*SD*
Working hours/week	38.43	6.07	39.84	7.62	40.65	6.71
Job tenure	13.81	9.38	9.38	10.64	22.76	9.83

Note. %[1] = participants in the study sample. %[2] = employees in the total sample.
[3)] The item was not included in the mill's questionnaire because all employees were permanently employed.

TABLE 2 Background characteristics of study participants in the cross-sectional sample (Studies II-III) and longitudinal sample (Study IV) in the HCD

Background factors	Cross-sectional sample (n = 735)		Longitudinal sample (n = 409)	
	n	%	*N*	%
Gender				
Women	639	87	359	88
Men	96	13	50	12
Age	*M* = 44.00, *SD* = 9.82		*M* = 46.4, *SD* = 8.79	
Vocational education				
Low	54	7	31	8
Intermediate	513	71	286	70
High	159	22	89	22
Marital relationship				
Yes	550	76	331	82
No	173	24	71	18
Children at home				
No	334	46	222	54
Yes	382	54	186	46
Type of job contract				
Permanent	579	80	352	87
Other	147	20	53	13
Managerial position				
No	624	87	344	85
Yes	96	13	61	15
Shift work				
No	288	46	187	45
Yes	387	54	223	55
Working hours/week	*M* = 38.42, *SD* = 6.07		*M* = 38.44, *SD* = 6.02	

2.2 Measures

In this study, I utilized seven different measures; these are introduced briefly here and presented in more detail in Appendix 2. First, *organizational commitment* was measured in Studies II-IV by two scales – affective and normative commitment – based on the Three-Component Model of Commitment Questionnaire (Meyer et al., 1993). These scales were chosen owing to their better content/predictive validity and because they both reflect an employee's positive attitude to remaining with the organization (see e.g., Meyer et al., 2002). Continuance commitment was left out due to the criticism leveled at its two-dimensional factor structure (e.g., Dunham, Grube, & Castaneda, 1994; Hackett

et al., 1994; Jaros, 1997; Ko et al., 1997; McGee & Ford, 1987) and weak correlations with other job attitudes as well as work-related antecedents and outcomes (e.g., Cheng & Stockdale, 2003; Ko et al., 1997; Meyer et al., 2002). Both the affective and normative scales contained six items (e.g., "I do not feel 'emotionally attached' to this organization", "I would feel guilty if I left my organization now", respectively), which the respondents evaluated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Three items on affective and one item on normative commitment were reverse-scored so that a high score indicated a high level of commitment. The Cronbach's alphas for the affective commitment scale varied between .76 and .80 and for the normative commitment scale between .83 and .84. The study-specific figures are presented in Table 4.

In Study II *organizational culture* was assessed by using the Organizational Culture Profile survey (henceforth OCP) (Ashkanasy et al., 2000; Broadfoot & Ashkanasy, 1994). The original OCP is a relatively lengthy survey containing 50 items and 10 dimensions (see Appendix 2). The questionnaire included all 50 items, but in the further confirmatory factor (CFA) and factor mixture model (FMM) analyses, an abridged version of it was applied, mainly for three reasons. First, the earlier psychometric studies concerning the scale (Broadfoot & Ashkanasy, 1994; Falkus, 1998) have shown that the OCP does not have the most adequate and psychometrically sound factor structure. In fact, these prior findings have indicated that an abbreviated form of it is also possible. Second, it did not seem reasonable to retain all these 50 items in the CFAs and FMM analyses as this would have resulted in unnecessarily complicated models, which would have been difficult to interpret. For example, performing CFA on a large number of items can be problematic as the method of variance may inflate the factor structure and enhance the probability of finding only a single common factor (see Anderson, Gerbing, & Hunter, 1987). Third, explorative factor analyses (EFA) suggested use of the abridged version of the OCP scale.

Consequently, it was decided to use the OCP as a six-dimensional structure (see Appendix 2), with the following dimensions: 1) Encouragement (5 items) i.e., the degree to which the organization encourages its employees to be innovative, creative and initiative; 2) Communication (3 items) i.e., free sharing of current and understandable information at all levels within the organization; 3) Humanistic workplace (4 items) i.e., the extent to which the organization respects and cares for its employees and encourages social relations; 4) Socialization on entry (3 items) i.e., how the socialization of new members is organized and how effective it is; 5) Leadership (4 items) i.e., the role of leaders in directing the organization, maintaining its culture and serving as role models; and 6) Rule orientation (3 items) i.e., the degree to which the organization's structure and rules limit the action of its members. Answers were given on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The Cronbach's alphas for these dimensions varied between .49 and .88, for more detail, see Table 4.

When comparing the six-dimensional structure of organizational culture to the original ten-dimensional structure (see Appendix 2), it can be seen that Humanistic workplace, Socialization on entry, Rule orientation, Communica-

tion, and Leadership dimensions were almost identical to the Humanistic, Socialization on entry, Structure, Communication, and Leadership dimensions included in the original OCP measure. The new Encouragement dimension, on the other hand, consisted of items that loaded earlier on the Communication and Innovation dimensions. In addition, the Job performance, Planning, Environment, and Development of the individual dimensions included in the original measure did not emerge as psychometrically robust scales in my data.

Psychosocial job characteristic scales. In Study III quantitative *workload* was measured by using the 5-item Quantitative Workload Inventory (Spector & Jex, 1998; see also Karasek & Theorell, 1990). The participants were asked to answer the questions on the amount (e.g., "How often you have to do more work than you can do well?") and pace (e.g., "How often your job requires you to work very fast?") of work assignments by using a 5-point scale ranging from 1 (never) to 5 (always). The Cronbach's alpha for the scale was .85. The *job insecurity* measure by Caplan, Cobb, French, van Harrison and Pinneau (1980) was utilized in Studies III and IV. The scale contained four items (e.g., "How certain are you about your job security?") measuring, in particular, global job insecurity (i.e., the threat of job loss). The items were assessed on a 5-point scale ranging from 1 (very certain) to 5 (very uncertain). The Cronbach's alphas for the scale varied between .71 and 74 (see Table 4). *Work-to-family conflict* was measured in Studies III and IV by using a 9-item version of the SWING scale (Geurts et al., 2005; Wagena & Geurts, 2000). The participants were asked to evaluate their perceptions of time- (e.g., "How often does the time you spend on work activities prevent you to be with your family as much as you would like to?") and strain-based (e.g., "How often are you irritated at home because your work is so demanding?") work-to-family conflict on a frequency-based response scale (1 = never, 4 = very often/always). The Cronbach's alphas for the scale varied between .86 and .88 (see Table 4).

Employees' evaluations of both *job control* and *humanistic organizational culture* were assessed in Study IV. Two dimensions of the job control scale (Jackson, Wall, Martin, & Davids, 1993) – control over timing (four items; e.g., "Do you set your own pace at work?") and control over methods (four items; e.g., "Can you decide how to go about getting your job done?") – were measured on a 5-point Likert scale ranging from 1 (not at all) to 5 (a great deal). These two forms from the five original scales were selected as they appear to be the most important in autonomy studies. The Cronbach's alphas for the scale varied between .90 and .91 (see Table 4). The *humanistic organizational culture* scale was derived from OCP scale (Ashkanasy et al., 2000) (see Appendix 2). Four items (e.g., "This organization regards the welfare of its employees as its first priority.") describing the extent of which the organization respects and cares for its employees and encourages social relations were evaluated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The Cronbach's alphas for the scale varied between .77 and .79 (see Table 4).

In Studies III and IV several *general and work-related background characteristics* of the participants were controlled for, i.e., employee's age (moderator in

Study III, control variable in Study IV), gender, marital relationship, vocational education, managerial position and total weekly working hours.

2.3 Data analyses

Study I

In Study I, a data-driven content analysis (see Hsieh & Shannon, 2005; Dey, 1993; Patton, 1990; Tuomi & Sarajärvi, 2003) was conducted to explore the meanings and antecedents that the interviewees associated with organizational commitment. The analysis consisted of several phases. In the first phase, the transcribed material was read through several times. The second phase, which included the identification of relevant themes or concepts emerging from the data rather than imposed from outside, were performed in four stages. First, the data were reduced by winnowing out unimportant parts of the text and highlighting quotes describing organizational commitment and its antecedents. Second, the quotes were examined thoroughly and a brief, reduced description or summary of each quote was written down. Third, these notes were clustered by putting similar ones into the same class or main category and the classes were labeled according to their contents. Fourth, the main categories were subsumed under wider concepts or integrative categories or concepts. To sum up, the data analysis proceeded from informants' verbatim statements through clustering to identification of concepts of organizational commitment and its antecedents. This proved to be a coherent way of organizing the interview material in relation to the research questions. This procedure also did justice to both the research questions and the statements of the interviewees (Hsieh & Shannon, 2005). An example of the data analytical process is illustrated in Table 3.

The credibility of the analysis was strengthened by the following procedures: the supervisor of the research project read the interview material in order to make sure that I had produced credible results. During the research project I also had, among others, several unofficial discussions on organizational commitment and its manifestation with colleagues participating in the research project. These conversations were based on my personal knowledge and on unofficial observations of the organizations obtained through organizational visits and the interviews. Moreover, in both organizations, public feedback sessions were organized in which I had a chance to "test" my findings in general by talking with the employer and employee representatives.

TABLE 3 An example of the data-driven content analysis in Study I

Original quote	Reduced description	Main category	Integrative category
'Certainly there are people who do their jobs without thinking of themselves. They are always ready to do somebody else's shift.'	Job is put ahead of employee's own needs, if necessary	Altruistic and flexible job behavior	Responsibility
'If someone, for instance, has been on the evening shift but the person who is supposed to do the night shift is for some reason sick and the situation might be such that there is no way to get anybody to take on the night shift and if a full crew is needed, then very rarely does a worker say that she/he won't stay on.'	Employees do not say no to extra shifts if the situation at work requires this		
'People come in at the weekends too when it [the job] has to be finished on time and if it couldn't be done earlier.'	Working overtime on weekends	Putting in extra time	
'Certain people in the organization work excessively long days, in other words are somewhat too committed.'	Working long days		
'People take work home because they don't have time, for instance, to read all the material, which means that it has to be taken home.'	Working at home after official working hours		
'There are people who don't fail to come in [to work] even when they are not feeling too well.'	The threshold for calling in sick is high	Avoiding absence from work	
'Even with an arm in plaster they'll still come to work.'	The threshold for calling in sick is high		
'One tries to do one's best, sometimes even takes one's work too seriously and takes on extra pressure and responsibility.'	Job is tried to do as good and responsible as possible	High sense of conscientiousness and obligation	
'If here, for example, you mean correcting one of those bigger faults, for example, outside working hours, well it hasn't been written down anywhere and no one in particular has been instructed to do it but… almost invariably everyone (irrespective of the time) gets down to it, can this in fact be described as duty?'	Employees have high sense of duty		

Study II

The data analyses in Study II were performed in four phases by applying both person- and variable-oriented approaches.

In the first phase of the analysis, the latent scale structures for measuring organizational culture and organizational commitment were constructed. The the factor structure of the organizational culture scale has been far less studied, whereas the psychometric properties of the organizational commitment scale have been verified it many previous studies (e.g., Cohen, 1996; Dunham et al., 1994; Hackett et al., 1994). The psychometric analyses of the OCP-50 were started with EFA via SPSS 11.0. Separate EFAs (principal axis factoring with oblimin rotation) for the 50 items were conducted: first, for the full data set and then for each organization separately. In interpreting the results of the EFAs, the following three criteria, which are often utilized when developing a scale, were applied: 1) a minimum factor loading of 0.40, 2) no cross-loading over 0.20, and 3) at least three items measuring each factor (see Stanton, Sinar, Balzer, & Smith, 2002). Thereafter, CFAs via Mplus 3.11 were performed for the full data set. CFA was used to confirm the factor structure proposed by the EFA (in the case of organizational culture) and by the theory (in the case of organizational commitment). In the CFA, the data input was in the form of raw data matrix and estimation was done using MLR (maximum likelihood parameter estimates with robust standard errors). The goodness-of-fit for the models was evaluated against the following indices: (1) comparative fit index (CFI; should be > 0.95), (2) Tucker-Lewis index (TLI; should be > 0.95), (3) standardized root mean square residuals (SRMR; should be < 0.08), and (4) root mean square error of approximation (RMSEA; should be < 0.06) (see Hu & Bentler, 1999). The chi-square statistic was not utilized as a fit index because of its high sensitivity to large sample sizes (see Bagozzi & Yi, 1988).

In the second phase, the person-oriented analyses were conducted by FMM via Mplus. The main idea of a person-oriented approach is that it focuses on individuals and the patterns of individual characteristics relevant to a research question (Bergman, Magnusson, & El Khouri, 2003). Accordingly, the main focus is on individual development or profile of variables, not the variables themselves or their statistical relations (Bergman & Magnusson, 1998). Using FMM, the data obtained from the three organizations were searched to find persons who had similar perceptions of organizational culture (i.e., six cultural dimensions). The analysis thus revealed unobserved latent classes of individuals who were homogenous within classes and different across classes (see Lubke & Múthen, 2005; Muthén, Asparouhov, & Rebollo, 2006). In other words, using FFM (i.e., estimating the optimal cultural class structure by grouping people not variables), it was tested whether the respondents differed from each other in their perceptions with respect to organizational cultural dimensions and formed latent cultural classes (see Muthén, 2001; Muthén & Muthén, 2000). The analyses were done across the three organizations. It was posited that organizational differences would be seen in the proportions of latent classes,

which may vary across organizations, whereas the class structure would be similar across organizations.

Because FFM is methodologically superior to, but less well-known than, the more traditional cluster analysis, it is important to understand its advantages. First, FMM computes the participant's probability of belonging to a particular latent class (Lubke & Muthén, 2005; Muthén & Muthén, 2000, 2004), whereas cluster analysis only classifies the respondents into groups (i.e., without probability estimates). Second, FMM allows a statistical comparison of the number of latent classes (Lubke & Muthén, 2005; Muthén, 2001; Muthén & Muthén, 2004), whereas in cluster analysis techniques, this is achieved more subjectively by the researcher. In this study five different criteria were used, as advised by Muthén and Muthén (2004), to determine the optimal number of latent classes: (1) Akaike's information criterion AIC, (2) the Bayesian information criterion (BIC), (3) a sample-size adjusted BIC (ABIC), (the lower the BIC, AIC and ABIC values, the better the obtained class solutions), and (4) the Vuong-Lo-Mendell-Rubin (VLMR) test of fit and (5) Lo-Mendell-Rubin adjusted test (LMR) (compares solutions with different numbers of classes; a low p-value (<.05) indicates that the *k*-1 class model has to be rejected in favor of a model with at least *k* classes). Third, FMM allows highly inter-correlated dimensions to be retained in the analyses and takes into account their unique variance. Thus, FMM searches for latent classes, whose mean values emerge in the latent structures (Muthén, 2001), whereas cluster analysis confounds all sources of variance (e.g., error variances).

The highly inter-correlated cultural dimensions (the correlations between the dimensions varied from -.39 to .84, for more detail, see Table 7) was the main reason for adopting FFM in this study. Due to a problem of multicollinearity, the explored cultural dimensions were inappropriate for many variable-oriented statistical methods (e.g., regression or variance analyses). However, while it would have been possible to use only one independent variable "supportiveness" (unidimensional second-order factor) to characterize organizational culture in this study, doing so would have oversimplified organizational culture as a phenomenon and failed to capture its diversity. In sum, FFM, by allowing the six cultural dimensions to be retained in the analysis, enabled their unique variance to be taken into account, thereby offering more interesting class structures than would have been permitted by the "supportiveness" variable alone. In fact, this strategy is in line with previous organizational culture research, which has emphasized the multidimensional nature of organizational culture (e.g., Cameron & Quinn, 1999; Hofstede et al., 1990; Van den Berg & Wilderom, 2004). Moreover, it has been found that the relationships between the organizational culture and outcome variables tend to vary across different cultural dimensions (e.g., Glisson & James, 2002; Vandenberghe & Peiró, 1999), which further underlines the importance of focusing on the different cultural dimensions.

In the third phase of the data analyses, the variable "organization" was included in the analyses and, using SPSS, it was examined whether the propor-

tions of latent cultural classes would vary by organization (i.e., how the respondents would be distributed between the different cultural classes in each organization). These analyses were conducted via the crosstabs procedure, because of the categorical nature of the variables. Finally, in the fourth phase, it was explored whether individuals' organizational commitment (i.e., affective and normative commitment) would vary by latent cultural classes and by organizations. The analysis was done by 3 (classes) x 3 (organizations) MANOVA (multivariate analysis of variance), with latent class and organization as independent variables and the highly inter-correlated commitment scales (r = .65) as dependent variables.

Study III

Moderated hierarchical regression analysis (see Aiken & West, 1991; Baron & Kenny, 1986) was chosen in Study III to examine the main effects of job demands and an employee's age and the moderating effects of employee's age on organizational commitment. As the analyses were conducted separately for all organizations and both commitment dimensions, six different regression models were computed. Affective and normative commitment, which intercorrelated highly (r = .64), was regressed on the antecedents in five steps as follows: the demographic variables (i.e., gender, marital relationship, vocational education) were entered at Step 1 and the structural work factors (i.e., managerial position, hours worked weekly) at Step 2 in order to control for their effects, the job demands scales were entered at Step 3, the moderator (i.e., employee's age) at Step 4, and, finally, the three interaction terms (i.e., workload x age, job insecurity x age, work-to-family conflict x age) were entered into the model at Step 5.

Study IV

Hierarchical regression analysis was conducted in Study IV in order to examine the predictive relationships between the work characteristics and organizational commitment. The analyses were done separately for each scale by using the following procedure: the dependent variables (i.e., organizational commitment dimensions, work characteristic scales) were derived from measurement point T2 (2005) and the independent variables from measurement point T1 (2003). In Model 2 the baseline value (T1) of each dependent variable was first controlled for at Step 1 in order to see whether the other antecedents at T1 would continue to have predictive power. Thereafter, the demographic background factors (i.e., gender, age, education, marital relationship) and structural work factors (i.e., managerial position, weekly working hours) at T1 were entered at Step 2 and Step 3 as control variables. Finally, to investigate work characteristics as antecedents of organizational commitment, job demands (i.e., job insecurity, work-to-family conflict) at T1 (Step 4) and job resources (job control, humanistic organizational climate) at T1 (Step 5) were added into the analyses. When the focus was on organizational commitment as a precursor of work characteristics, affective and normative commitment were entered in the analyses at Step 4. The

different analyses were performed for both commitment dimensions as they were highly inter-correlated (r = .62, in 2003). Model 1 coincided with Model, 2 with one exception; in Model 1 the baseline effect of the dependent variable was not taken into account in the first step of the analysis. It would have been possible to include the cultural Rule orientation dimension in the research model as well. However, I excluded it as I wanted to keep the model simple enough to work with (i.e., containing two job demands and two job resources at a time). A summary of the participants, variables and data analyses is presented in Table 4.

TABLE 4 Summary of the participants, variables and data analyses used in Studies I-IV

	Participants	*Variables*	*Data analyses*
Study I	*HCD*: n = 16 • 69% women • mean age 52 years • 67% uni. degree education • 63% managerial position • tenure with current employer 21 y. • tenure in current position 14 y. *ICT*: n = 15 • 87% men • mean age 50 years • 60% vocational education • 40% managerial position • tenure with current employer 21 y. • tenure in current posit. 9 y.	Semi-structured interview study	Data-driven content analysis
Study II	*HCD*: n = 735 • 87% women • mean age 44 years • 76% married • 46% no children at home • 71% vocational education • 80% permanent employees • 13% managerial position • 93% full-time job • 6% regular day shift • weekly working hours 38.4 • tenure with current employer 14 y.	Organizational commitment: • Affective commitment (α = .78) • Normative commitment (α = .83)	EFA, CFA (MLR, maximum likelihood parameter estimates with robust standard errors), Factor mixture model (FMM) analysis, Crosstabs analysis, MANOVA

(continues)

TABLE 4 (continues)

	Participants	*Variables*	*Data analyses*
Study II	*ICT*: *n* = 296 • 67% men • mean age 37 years • 79% married • 57% no children at home • 34% vocational education • 95% permanent employees • 30% managerial position • 91% full-time job • 91% regular day shift • weekly working hours 39.8 • tenure with current employer 9 y. *Mill*: *n* = 221 • 81% men • mean age 45 years • 79% married • 49% no children at home • 66% vocational education • 100% permanent employees • 16% managerial position • 98% full-time job • 40% regular day shift • weekly working hours 40.7 • tenure with current employer 23 y.	Organizational culture: • Encouragement (α = .88) • Communication (α = .76) • Humanistic workplace (α = .77) • Socialization on entry (α = .49) • Leadership (α = .74) • Rule orientation (α = .55)	
Study III	*HCD*: *n* = 735 •for details, see Study II *ICT*: *n* = 296 •for details, see Study II *Mill*: *n* = 221 •for details, see Study II	Organizational commitment: • Affective commitment (α = .78) • Normative commitment (α = .83) Job insecurity (α = .74) Work-to-family conflict (α = .86) Workload (α = .85) Age as a moderator Background variables: • gender, education, marital relationship, managerial position, weekly working hours	Moderated hierarchical regression analysis

(continues)

TABLE 4 (continues)

	Participants	*Variables*	*Data analyses*
Study IV	*HCD* In 2003 (*n* = 735) •for details, see Study II and III • 54% shift work In 2005 (*n* = 409) • 88% women • mean age 46 years • 82% married • 54% no children at home • 70% vocational education • 87% permanent employees • 15% managerial position • 55% shift work • weekly working hours 38.4	Organizational commitment: • Affective commitment (α = .76-.80) • Normative commitment (α = .83-.84) Job insecurity (α = .71-.73) Work-to-family conflict (α = .86-.88) Job control (α = .90-.91) Humanistic org. culture (α = .77-.79) Background variables: • gender, age, education, marital relationship, managerial position, working hours	Hierarchical regression analysis

3 RESULTS OF STUDIES I-IV

3.1 Study I: Meanings of organizational commitment

The main aim of this qualitative interview study among the HCD and ITC company was to explore the meanings which were given to organizational commitment and identify the factors that could precede it.

Organizational commitment – interpretations associated with the concept

The results of the content analyses revealed that the concept of organizational commitment was given three different integrative meanings (see Table 5). *First*, it seemed to be a vague and intangible concept that relates to other work commitment constructs than merely the organization. Thus, organizational commitment was regarded as an *obscure construct*. In particular, the HCD informants were confused about what organizational commitment is and experienced it as a problematic concept, while admitting that commitment is a current and important topic in the public and organizational debate. In fact, the interviewees easily associated commitment with a target other than the organization. This was seen in their talking about organizational commitment as if it were a synonym for job involvement, or for occupational or work unit commitment. Some informants even felt that organizational commitment was not necessary if employees are committed to their jobs. In the ICT company lack of familiarity with the concept did not, however, emerge to the same extent. Only one interviewee expressed uncertainty as to what is meant by organizational commitment.

> 'There's a lot of talk about commitment. It's somehow rather a strange word commitment.' (HCD, Female)
> 'I don't really understand how to the organization, what it means, committed to the organization?' (ICT, Male)
> 'I mean, what is the idea behind this commitment. I mean, of course they're able to define what it means, that you're committed to the job.' (HCD, Female)
> 'Anyway people are committed to the basic task of our organization.' (HCD, Male)

'Are we in our profession committed more in a way to the occupation and not so much to the organization?' (HCD, Female)
'Can we require that a person commits to the organization when she/he is committed to doing her/his job well? Isn't that enough of a degree of commitment?' (HCD, Female)

Second, the meaning most commonly associated with organizational commitment was *responsibility*. In both organizations the interviewees defined organizational commitment through responsibility, which they saw as manifested in conscientious, dutiful, altruistic and flexible job behavior. According to the informants, committed employees do not, first of all, neglect their duties, behave carelessly in their work or lightly pass the buck to other employees. Neither do they say no to extra work (i.e., working extra shifts) if some unanticipated situation or achieving a work goal requires them to do so or if, by so doing, they can help their co-workers. Thus, committed employees are always ready to change their shifts or personal plans if their employer or a co-worker asks them to. In addition, responsibility was seen to be manifested in employees' giving extra time (i.e., working long days/hours) and avoiding absence from work. The interviewees, particularly in the HCD, pointed out that commitment to the organization can be effectively shown by working overtime and working at home outside official working hours (e.g., evenings and weekends). Furthermore, the informants emphasized that employees with a high level of commitment will come to work even if they do not feel well. Thus, the threshold for calling in sick was seen to be high with committed employees. Lack of commitment was, in fact, believed to be manifested in different kind of malpractices such as unnecessary or unjustified absenteeism and misuse of working hours.

'Our staff have such a strong sense of responsibility that they wouldn't refuse except in the most extreme situations.' (HCD, Male)
'Conscientious workers at least start out with the idea that they'll get their work done even if it means eating into a little of their own time.' (HCD, Male)
'If here, for example, you mean correcting one of those bigger faults, for example, outside working hours, well it hasn't been written down anywhere and no one in particular has been instructed to do it but… almost invariably everyone, irrespective of the time it takes, gets down to it, can this in fact be described as duty?' (ICT, Male)
'One tries to do one's best, sometimes even takes one's work too seriously and takes on extra pressure and responsibility.' (ICT, Male)
'Certainly there are people who do their jobs without thinking of themselves. They are always ready to do somebody else's shift.' (HCD, Female)
'People come in at the weekends too when it [the job] has to be finished on time and if it couldn't be done earlier.' (ICT, Female)
'It shows [commitment] that people work long days.' (HCD, Female)
'Certain people in the organization work excessively long days, in other words are somewhat over-committed.' (ICT, Male)
'There are people who don't fail to come in [to work] even when they are not feeling too well.' (ICT, Male)

Third, organizational commitment was described as *age-related work involvement*. Here, the concept of work involvement refers to a normative belief about the value of work in general in an employee's life (see Kanungo, 1982). It is related to Morrow's (1993) concept of work ethic endorsement, which describes the degree to which employees believe in the importance of work itself, or the Protestant work ethic, which refers to the extent to which employees feel that

their personal worth results from self-sacrificing behavior at work (see Randall & Cote, 1991). In both organizations, the interviewees explained that for employees with a high level of organizational commitment work usually has a value for its own sake and it deserves their commitment, whereas for uncommitted employees other values in life are more important than work. A high level of work involvement was also reported to be more typical of older employees. In addition, organizational commitment was regarded as an employee's personal decision. Thus, according to these informants, every employee has a right to make the decision that suits her/him in best as far as commitment to the organization is concerned. Moreover, one informant in the ICT company believed that some employees are always actively and voluntarily looking for a new and better job despite the organization's efforts to retain their services.

> 'The younger nurses have quite a different attitude, that their private life also has much more importance.' (HCD, Female)
> 'Young people don't accord the same value to work as, for example, it has had during our careers.' (HCD, Female)
> 'The older nursing staff are anyway the sort that still have it - a drive to commitment, but the younger ones… does it bother them if they go off to Norway or England.' (HCD, Male)
> 'They are such terribly young people that maybe they can't commit in that way.' (ICT, Female)
> 'If my situation in life were to change, for instance, so that I had to move or for some other personal reason, I wouldn't feel that this is the only organization where I can work, I could just as easily change.' (HCD, Female)
> 'Changing jobs is common practice and sometimes it helps one's career.' (ICT, Male)

TABLE 5 Meanings associated with organizational commitment

Meanings	Integrative meanings	Number of mentions	
		HCD	ICT
Vague and intangible concept	Obscure concept	4	1
Synonym for job involvement, occupational and work unit commitment		8	0
Conscientiousness and obligation	Responsibility	7	6
Altruism, flexibility		3	4
Putting in extra time		7	2
Avoiding absence from work		5	3
High work involvement	Age-related work involvement	4	3
Age- and person-related issue		6	3

Antecedents of (low) organizational commitment

The antecedents of organizational commitment that emerged in this study were mainly organizational (see Table 6). The *first* factors – in the interviewees' opinion – that affected employees' organizational commitment were *structural and*

cultural. In the HCD, the informants attributed weak organizational commitment partly to the huge size and scattered location of the organization. In the HCD the interviewees believed that the employees did not know the umbrella organization and its units (i.e., structure) well enough and, therefore, the organization appears to them as faceless and remote. In other words, they saw organizational familiarity and closeness as essential factors making for strong organizational commitment. According to the informants from the ICT company, the problems with organizational commitment originated in the company merger and the structural bi-polarity and cultural confusion/inequality consequent upon it. They reported that despite the merger the two sectors had remained separate and that there was no cohesive organizational culture. In fact, the employees in the telecommunication company were used to a rather secure and "static" long-term employment relationship (i.e., "cradle-to-grave" attitude), whereas in the IT field, the culture was young and work more insecure because of its sensitivity to economic fluctuations and change. In addition, some interviewees ascribed impaired organizational commitment to employees' excessive commitment to their own sector rather than the whole company. Such employees mainly valued their own sector and "felt at home" there. Moreover, the informants representing the telecommunication company described how in their view the ICT company had not always valued their contribution to the same extent than as that of the IT staff.

> 'It's easier to commit to smaller units.' (HCD, Female)
> 'This organization certainly seems a bit nebulous and distant because it's so terribly big.' (HCD, Male)
> 'The size of this organization, if it were some small firm or a small, very small hospital, then it would seem close. This is faceless, this kind of big organization, you can't commit to it. You don't feel it's yours, close to you like a private hospital or a local health centre.' (HCD, Female)
> 'As I see it, we have a conflicting situation, there is the IT side and then there is this traditional old telephone company [Telecommunication sector]. And yes I think there's a clear gap… It's a totally different world there than in this old traditional telephone company. They "speak a different language" up there in the tower [in the IT sector]. In the Telecommunication sector it's as if we [telecommunication] were nothing, that we were just a necessary evil here.' (ICT, Male)
> 'Strategy is that the emphasis is wholly on the IT sector. Well it is foreign at least to most employees in the Telecommunication sector. The old side [telecommunication] doesn't feel part of the new company. They like the telephone company better as it was. You can't commit to the company when you know that the company is oriented to the IT sector and we are in no way part of it.' (ICT, Female).

Second, the interviewees emphasized that in the HCD and ICT company a certain *climate of uncertainty and obscurity* was prevalent and impaired organizational commitment. For example, in the ICT company organizational downsizing and redundancies were often spoken about. According to the interviewees, the employees were aware that redundancies might be impending in the IT sector since a collaborative procedure had already been launched. However, the informants reported that the employees did not know what changes were on the way and how operations were going to be organized in future. In sum, the informants emphasized that at a time when the employer was downsizing and

slimming down the workforce, it was not realistic to expect employees to be committed to the organization and not to have any turnover intentions. In fact, the interviewees argued that a secure job is a minimum precondition for committing themselves to the organization. In the ICT company the informants also thought that if employees do not have enough time to adjust to organizational changes or are not able to influence them, they probably feel insecure and uncommitted. In addition, the interviewees explained that unclear organizational goals, strategies and values reduced organizational commitment in both organizations because the employees did know to what kind of activity or organization they were expected to commit. Overall, the informants believed that a certain vagueness in organizational policy and its execution was related to impaired organizational commitment.

> 'Now there has been a bit of that…. shedding staff. Well yes it has also brought this sense of insecurity and perhaps leads to this lack of commitment.' (ICT, Male)
> 'Collaborative procedure, well it certainly causes that [low commitment]' (ICT, Male)
> 'If your job is insecure and you are afraid of when will it be my turn, well then anyone can imagine how it affects work motivation and performance and all that kind of thing [commitment].' (ICT, Male)
> 'Yes, I would think that [continuous organizational change] play a part in low commitment. Lack of commitment to the organization is partly due to that fact that you don't feel that you have been able in any way to influence this change, let alone understood why it has to happen yet again.' (ICT, Male)
> '[low commitment stems from] changes and the obvious mistakes that have been made.' (ICT, Male)
> 'At least partly responsible for [lack of commitment] is the lack of a clear strategy.' (ICT, Male)
> 'If you don't have a clear idea who they [managers] are, you don't know who you boss is, or what these "systems" above all are, then you can't be committed to them.' (ICT, Male)
> 'The staff don't always know what they should be committed to when they don't know the overall aims.' (HCD, Female)
> 'You can't commit when you don't really know where the company is ultimately heading.' (ICT, Male)
> 'Nobody really knows what the situation in this company is, where it is going, what it will do, who it will belong to.' (ICT, Male)

The *third* class of organizational factors that the informants associated with employees' organizational commitment consisted mainly of *humanistic HR practices*, i.e., practices relating to management, development, participation, job control and communication. Some interviewees, in both organizations, reported that the organizational management, in particular, affects organizational commitment. For instance, in the HCD the interviewees stated that a manager who acts as a role model and expresses her/his own commitment to the organization could increase subordinates' commitment, whereas a manager who is distant and ignores subordinates and their daily routines and duties has the opposite effect. However, the HCD informants did not particularly emphasize factor related to humanistic management, whereas in the ICT humanistic management was clearly an issue. The ICT interviewees expressed the view that if the organization wants to improve employees' organizational commitment, a crucial step would be to increase humanistic procedures in management.

'The management of the organization is not physically visible. It is distant and not at least what the personnel would really round and commit to. If you never see the managers physically, then it may be like this. You don't know what to commit to.' (HCD, Female)
'I think the question of lack of commitment is also very much a question of a lack of leadership ability.' (HCD, Female)
'The managers perhaps need to improve their leadership skills and how they handle people. I always wish that there were more of this kind of… a more like people-centered approach.' (ICT, Male)
'This [management in this organization at the moment] is known as cold human resource management.' (ICT, Male)

The HCD interview data indicated that perceived organizational supportiveness is a potential antecedent of high organizational commitment. The interviewees stated that employees would commit if the organization showed that it values and appreciates them and takes their needs, capabilities and personal development into account. They also stated that positive feedback and appraisals should form part of the daily routine in every organization. The informants in both organizations emphasized that for a successful HR policy and, by extension, for organizational commitment factors related to employee participation and job control/scope are crucial. In fact, in their view it is difficult to commit if a person has no possibility to influence decision making concerning his/her own work, work unit or organization, or if a person does not have the opportunity to participate in development processes or planning relating to his/her own job. Moreover, an interesting, challenging, meaningful and clearly defined job was associated with increasing commitment. In addition, the informants in both organizations believed that open communication and free discussion would foster organizational commitment. However, they reported that nowadays communication inside the organizations was not as good as it might be, and therefore employees' organizational commitment was weak. Accordingly, they recommended both quantitative and qualitative improvements in their organizations' communication policy, for instance, in the amount of communication and its openness.

'Commitment to the organizations will happen when they make good use of your abilities… and also give your responsibilities accordingly.' (HCD, Female)
'Developing your own professional skills, it's the most important factor that gets you to commit.' (HCD, Male)
'If the organization praises you for being good, for existing, good that you can do the job and good that you did this, then you commit to it.' (HCD, Female)
'If you have the possibility to influence things and take part in, well then you commit.' (HCD, Female)
'If you feel that decisions are made at the top and then trickle down from there to be applied to those below, then it may perhaps make it more difficult to commit.' (HCD, Female)
'It's important that do I get to do the kind of work that interests me.' (HCD, Male)
'Work should be good and meaningful. It should be meaningful, with the possibility to succeed in it and become absorbed in it.' (ICT, Male)
'If the task itself is somehow clear, then it [has a positive effect on commitment].' (HCD, Female)
'Certainly the opportunity for interaction in different matters would increase it [commitment].' (HCD, Female)
'If only there was more openness in dealing with matters. Here the information culture is just awful. It [lack of commitment] tells you something about this lack of openness.' (ICT, Female)
'I certainly believe that it has its own part [lack of commitment] in the lack of discussion.' (ICT, Male)

Fourth, the interviewees in the HCD mentioned *non-organizational factors* which could be related to organizational commitment. In fact, some informants believed that the reasons for employees' reduced organizational commitment could lie in external issues, outside the organization. For example, according to one informant, lack of organizational commitment is a rather general trend in Europe, including the Nordic countries, and not just a problem for this particular organization. Another explanation that was offered highlighted the growing prevalence of individualistic values in Finnish society with the consequence that the significance accorded to work is generally decreasing and the value of leisure time increasing. In addition, one interviewee suggested that employees' decreased organizational commitment may reflect the impaired status of public health care. Some informants also saw temporary employment as an external reason for weak commitment among the HCD employees; short or temporary of job contracts are quite common throughout Finland's healthcare sector.

> 'One of these general European or general Nordic trends that sick leave [indicating lack of commitment] for some reason is on the increase.' (HCD, Male)
> 'With us perhaps it is more individual-centered, everyone acts as an individual and makes their own contribution but not like in the name of the organization.' (HCD, Female)
> 'It may well be a general phenomenon that this kind of municipal health care isn't like a modern thing anymore, it should be somewhat different.' (HCD, Male)
> 'Generally speaking people do a lot of work on temporary contracts, you don't like it's worth thinking that this is my job for the foreseeable future, you go to work just for a few months.' (HCD, Male)
> 'They [short contract workers] can't think of anything else than will they have a job or not, so they can't be committed.' (HCD, Female)

TABLE 6 Antecedents of organizational commitment

Antecedents	Integrative meanings	Number of mentions	
		HCD	ICT
Size of organization and scattered location	Structural and cultural factors	4	0
Structural bi-polarity, cultural confusion and inequality		0	3
Downsizing and redundancy	Climate of uncertainty and obscurity	0	7
Unclear goals and situations		4	6
Organizational changes		0	5
Managerial factors	Humanistic HR practices	3	4
Perceived organizational supportiveness		5	0
Participation, job control and job scope		4	1
Open communication		4	3
External reasons	Non-organizational factors	6	0

3.2 Study II: Organizational culture and commitment

The main purpose of Study II was to examine the relationships between organizational cultural dimensions and organizational commitment on the basis of quantitative cross-sectional data from three organizations.

The structures of the organizational culture and organizational commitment scales

In order to enable the further analyses, the latent scale structures for measuring organizational culture and organizational commitment were constructed in the first phase of Study II. Organizational culture was assessed by a 10-dimension-based scale. The EFAs suggested a 10-factor solution for organizational culture (eigenvalues greater than 1). However, several items inside this 10-factor solution had, for instance, a non-significant factor loading, or they loaded on more than one factor at the same time, or sometimes even on different factors than their own. Moreover, the EFAs produced different factor structures for each organization. Attempts were made to remove these problems, but with little success. In order to obtain an acceptable factor structure, only the six-factor model was found to met the criteria set (i.e., a minimum factor loading of 0.40, no cross-loading over 0.20, and at least three items measuring each factor) and was meaningful in its content.

This model was also confirmed through CFA. The fit indices of the model showed moderate fit with the data ($\chi^2(194) = 644.03$, $p \leq .001$; CFI = 0.944; TLI = 0.933; SRMR = 0.035; RMSEA = 0.044). The six-factor model contained 22 items loading on six latent factors labeled Encouragement, Communication, Humanistic workplace, Socialization on entry, Leadership and Rule orientation (see Appendix 2). Table 7 shows that the factors of Encouragement, Communication, Humanistic workplace and Leadership were psychometrically robust scales as their reliabilities exceeded the often adopted criterion value of 0.70 (see Stanton et al., 2002). Furthermore, the factor loadings in these scales (emerged in the CFAs) were relatively high. Socialization on entry and Rule orientation, on the other hand, were psychometrically the weakest scales, as their Cronbach's alpha coefficients remained below 0.70 and their factor loadings were relatively low. However, the t-values for each standardized factor loading in these two scales were significant, indicating that each observed variable actually measured the latent scale. As seen in Table 7, the six latent factors also correlated very highly. The highest correlations were found between Humanistic workplace, Encouragement and Communication.

The psychometric analysis of the organizational commitment scale via CFA revealed that the theoretical model (i.e., two-factor model, six items loading on both factors) did not show an optimal fit with the data ($\chi^2(53) = 593.60$, $p \leq .001$; CFI = 0.870; TLI = 0.838; SRMR = 0.064; RMSEA = 0.095). Moreover, the one-factor model showed an even poorer fit with the data ($\chi^2(54) = 886.13$, $p \leq .001$; CFI = 0.799; TLI = 0.755; SRMR = 0.069; RMSEA = 0.117). Hence, several different models were tested on the basis of the information yielded by the

modification indices. The best fitting model was, according to the fit indices ($\chi^2(15) = 1760.44$, $p \leq .001$; CFI = 0.995; TLI = 0.991; SRMR = 0.017; RMSEA = 0.031), the model with two correlating latent factors (i.e., affective and normative commitment) and three items loaded on both these factors. The theoretical (2-factor) model was, however, chosen for further analysis, as 1) the CFA results above showed greater support for this model than for the one-factor model 2) it is a well-validated measure the psychometric properties of which have been verified in several other studies (e.g., Cohen, 1996; Dunham et al., 1994; Hackett et al., 1994), and 3) it is also possible that the poorer fit of the theoretical model depends more on the data than the measure itself.

Class profiles of organizational culture

The six organizational cultural dimensions were used as a basis for identifying the cultural class profiles prevailing among the employees in the three organizations. FMM was used to reveal homogeneous latent classes whose perceptions of the six cultural dimensions were similar (see Muthén et al., 2006). The results of the FMM analyses (see Table 8) showed that the AIC and the ABIC indices strongly supported a five-class solution and, the BIC index a three-class solution, as these class structures received the smallest values (i.e., the lower the BIC, AIC and ABIC values, the better fitting the class solution). The three-class solution was also preferred in the VLMR and LMR tests, as their *p*-values favored the three-class solution at the expense of a two-class solution and, furthermore, indicated that both the four- and five-class solutions were unsuitable. In addition, when the profiles of the three- and five-class solutions were drawn, the former proved to be the most meaningful in content as well as more interpretable than the latter. Thus, the three-class solution was chosen.

The profiles of the three cultural classes (see Figure 4) that were included in the three-class solution are described as follows: Class 1 (n = 272) evaluated the organizational culture as highly rule-centered (i.e., organizational culture characterized by high level of rule orientation and low level of other cultural dimensions). Accordingly, employees in Class 1 perceived that their functioning and behavior in organizations are constrained by regulations, rules and organizational structures. This class was labeled "rule-oriented". The name was based on the "Rule-orientation" dimension, which includes items that describe the degree to which the organizational structures and orders obtained from the upper level limit the action of the members. Class 2 (n = 270) perceived the organizational culture as highly supportive in the dimensions of encouragement, communication, humanistic workplace and socialization on entry, highly leadership-centered and with a low level of rule orientation. Thus, in this culture, participation, innovation and creativity were encouraged, communication was regarded as fluent, employees and their well-being were highly valued, new employees were properly socialized into the organization and leaders were seen as communicating the organizational vision, targets and an acceptable code of behavior. Class 2 was labeled "human-oriented", because the dimensions and items included features typical of a humanistic culture (see e.g., Cameron &

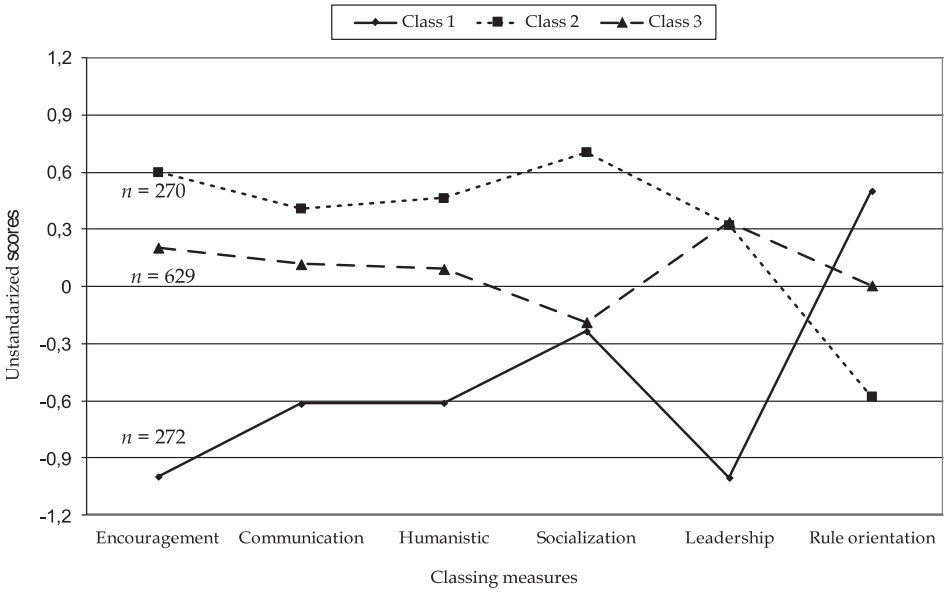


FIGURE 4 Profiles of the latent cultural classes

Quinn, 1999). Compared to Class 2, the employees in Class 3 (n = 629) reported that the organizational culture was less supportive in the dimensions of encouragement, communication, humanistic workplace and socialization on entry and more rule-oriented. Furthermore, they regarded the culture as highly leadership-oriented. Thus, Class 3 contained employees who perceived the leaders as occupying an important role in their organizational culture by directing the organization and setting the rules. Class 3 was labeled "task-oriented leadership" instead of leadership, as here the focus of leadership concerned tasks, rules and operations rather than persons.

TABLE 7 Means, standard deviations, Cronbach's alphas (α), item specific factor loadings and correlations of the culture dimensions (n = 1172)

Organizational culture dimensions	M	SD	α	Factor loadings EFA	Factor loadings CFA	1.	2.	3.	4.	5.
1. Encouragement	4.09	1.31	0.88	0.47-0.76	0.70-0.81	-				
2. Communication	3.71	1.23	0.76	0.40-0.78	0.68-0.77	.82	-			
3. Humanistic workplace	4.27	1.16	0.77	0.52-0.79	0.52-0.79	.84	.81	-		
4. Socialization on entry	3.59	1.16	0.49	0.41-0.72	0.40-0.67	-.50	-.48	-.54	-	
5. Leadership	4.63	1.01	0.74	0.57-0.70	0.53-0.82	.61	.68	.67	-.39	-
6. Rule orientation	4.42	1.12	0.55	0.52-0.61	0.51-0.57	-.67	-.58	-.64	.59	-.41

TABLE 8 Model comparison indices for the latent cultural classes (FMM)

Model	Log likelihood	df	AIC	BIC	ABIC	VLMR	LMR
One-class model	42757.80	5	85645.60	85974.92	85768.45	-	-
Two-class model	42715.82	2	85575.64	85940.43	85711.73	p = .014	p = .015
Three-class model	-42580.14	9	85318.28	85718.53[1)]	85467.60	p = .050[1)]	p = .053[1)]
Four-class model	-42571.00	86	85313.99	85749.71	85476.54	p = .288	p = .297
Five-class model	-42539.90	93	85265.80[1)]	85736.98	85441.58[1)]	p = .384	p = .389

Note. [1)] Indices showing the best fitting model.

Organizational differences in cultural classes

Crosstabs analysis, 3 (cultural classes) by 3 (organizations), was used to explore the relationship between the cultural classes and organizations. I saw it as important to examine organizational variation, because the studied organizations were very different, and organizational culture tends to vary across organizations (e.g., Hofstede, 2001; Schein, 1990). The results showed that the organizations differed from each other in the human-oriented class and task-oriented leadership class (χ^2 (4, 1171) = 40.55, $p \leq .001$) as in these classes the adjusted residuals were ≥ |2| (see Table 9). More specifically, the HCD turned out to have the lowest, and the ICT company the highest, proportion of the respondents in the human-oriented class. The ICT company also had the lowest proportion of the respondents in the task-oriented leadership class, whereas in other two organizations more than half of the respondents belonged to this class. In addition, the task-oriented leadership class was dominant in each organization (i.e., the organizational culture was seen mostly as leadership-centered with a task focus).

TABLE 9 Cultural classes by organizations (n = 1171)

Cultural Classes	HDC			ICT			Mill		
	N	*%*	*Adj. residuals*	*N*	*%*	*Adj. residuals*	*N*	*%*	*Adj. residuals*
1. Rule-oriented	163	24.1	0.8	67	23.5	0.2	42	20.0	-1.2
2. Human-oriented	113	16.7	-6.1	95	33.5	4.8	62	29.5	2.5
3. Task-oriented leadership	401	59.2	4.5	122	43.0	-4.2	106	50.5	-1.1

Note. Adjusted residuals ≥ |2| indicate statistically significant differences in cultural classes between organizations.

Relationship between cultural classes and organizational commitment

Finally, the relationships between the three latent cultural classes and two commitment dimensions, i.e. affective and normative commitment, were examined. The results of the MANOVA indicated that there was no significant interaction effect (3 classes x 3 organizations) on affective (F(4, 1165) = 0.65, $p = .630$) or normative commitment (F(4, 1165) = 0.26, $p = .905$). However, two significant main effects for cultural class emerged: for affective and for normative commitment (see Table 10). The results showed that Class 1 (i.e., rule-oriented) was

less affectively (M = 4.01, SD = 1.10) and normatively (M = 2.74, SD = 1.23) committed than classes 2 (i.e., human-oriented) (M = 4.77, SD = 1.13; M = 3.56, SD = 1.29, respectively) or 3 (i.e., task-oriented leadership) (M = 4.75, SD = 1.06; M = 3.56, SD = 1.27, respectively) in each organization. In other words, if the organizational culture was characterized by strict rules and structures, the employees were less committed than in the humanistic or task-oriented leadership cultures. In addition, the results revealed a statistically significant main effect of organization on normative commitment: the employees in the mill (M = 3.68, SD = 1.23) were more normatively committed than the employees in the HCD (M = 3.25, SD = 1.31) or in the ICT (M = 3.42, SD = 1.34). Finally, as seen from Table 10, the respondents generally showed higher affective than normative commitment to their organizations.

TABLE 10 Means for commitment dimensions and differences between organizations and cultural classes (MANOVA)

Commitment dimensions	A) HCD			B) ICT			C) Mill			Statistically significant effects and group comparisons[c)]
	1. Rule-oriented	2. Human-oriented	3. Task-oriented leadership	1. Rule-oriented	2. Human-oriented	3. Task-oriented leadership	1. Rule-oriented	2. Human-oriented	3. Task-oriented leadership	
Affective commitment	4.01	4.56	4.76	3.99	4.56	4.68	4.04	4.86	4.83	F (df, 2) = 36.42, p ≤ .001[a)] 1 < 2*** 1 < 3***
Normative commitment	2.61	3.47	3.46	2.84	3.57	3.62	3.14	3.71	3.87	F (df, 2) = 28.59, p ≤ .001[a)] 1 < 2*** 1 < 3*** F (df, 2) = 6.78, p ≤ .001[b)] C > A***

Note. [a)] Main effect of cultural class. [b)] Main effect of organization. [c)] Group comparisons using Scheffe's Test.
*** p ≤ .001

3.3 Study III: Job demands, age and organizational commitment

The main goals of Study III were to investigate job demands as antecedents of organizational commitment and the moderating role of age in this relationship by utilizing cross-sectional data from three organizations. The results of the regression analyses and the correlations between the variables are presented in Tables 11-14.

Main effects of job demands and age on organizational commitment

The results of the regression analyses showed that job demands were negatively related to affective and normative commitment. As seen in Table 11 (Step 3), job insecurity had a significant main effect on affective (beta coefficient = -.18, -.23 and -.27, respectively) and normative (beta coefficient = -.12, -.20 and -.26, respectively) commitment in all three organizations. Altogether, the more job insecurity the employees experienced at work, the less committed they were. Furthermore, work-to-family conflict associated negatively with affective commitment in all three organizations (beta coefficient = -.26, -.23 and -.16, respectively) and with normative commitment in the HCD (beta coefficient = -.16). The negative effect between work-to-family conflict and affective commitment in the ICT company was probably artificial, as there was a non-significant correlation between the variables (r = -.07) (see Table 13). The artificial effect could perhaps be due to the moderately high correlation between work-to-family conflict and weekly working hours (r = .32). Finally, workload had a negative main effect on normative commitment in the mill (beta coefficient = -.16). Together the three job demands explained 5-12% of the variance in affective commitment and 3-5% of the variance in normative commitment in all three studied organizations.

In all three organizations, employees' age had a significant main effect on normative commitment (beta coefficient = .15, .14 and .21, respectively), whereas a main effect of age on affective commitment emerged only in the HCD and ICT company (beta coefficient = .12, and .20, respectively) (see Step 4 in Table 11). The non-significant relationship in the mill could be due to affective commitment, as it is possible that it (i.e., affective commitment) might have been less emphasized in the mill. Altogether, the results indicated that the older employees were more committed to their organizations than the younger ones. Employees' age explained 0-3% of the variance in affective commitment and 2% of the variance in normative commitment in all three organizations. In addition, as indicated in Table 11, the employees with lower education proved to be more affectively and normatively committed. Moreover, the employees with higher weekly working hours were more affectively committed in the HCD and ICT company. The participants in the mill, who worked in a managerial position, were more affectively and normatively committed to their organizations.

TABLE 11 Hierarchical regression analyses involving age as a moderator between job demands and commitment dimensions by organizations

Antecedents	Affective commitment			Normative commitment		
	HCD (n = 657)	ICT (n = 278)	Mill (n = 193)	HCD (n = 657)	ICT (n = 277)	Mill (n = 193)
	β	*β*	*β*	*β*	*β*	*β*
Step 1 – Demographics						
Gender (woman/men)	.01	.06	.06	.02	.03	.08
Marital relationship (yes/no)	-.05	.00	.09	-.02	.02	.16*
Education (low/high)	-.02	-.20***	-.22**	-.08*	-.20**	-.20*
ΔR^2	.00	.08***	.02	.00	.06***	.04*
Step 2 – Structural work factors						
Managerial position (no/yes)	.07	.07	.32***	.07	.10	.22**
Hours worked weekly (low/high)	.08*	.20**	.05	.02	.09	-.10
ΔR^2	.02***	.06***	.08***	.02**	.04**	.05**
Step 3 – Job demands						
Workload = WL	.02	.03	-.13	.01	.05	-.16*
Job insecurity = JI	-.18***	-.23***	-.27***	-.12**	-.20**	-.26**
Work-to-family conflict = WFC	-.26***	-.23***	-.16*	-.16***	-.06	-.04
ΔR^2	.11***	.05***	.12***	.04***	.03*	.05*
Step 4 – Moderator						
Employee's age in years	.12**	.20**	.06	.15***	.14*	.21**
ΔR^2	.01**	.03**	.00	.02***	.02*	.02*
Step 5 – Interaction terms						
WL x age	-.07	-.03	.07	-.04	-.04	.15
JI x age	-.09*	-.12	.11	-.08*	-.02	.22**
WFC x age	.12**	-.11	.01	.12**	-.05	-.06
ΔR^2	.02**	.02	.02	.02**	.00	.05*
R^2	.16***	.24***	.24***	.10***	.15***	.21***

Note. β = Standardized beta-coefficient derived from the final step of the models, * p ≤ .05, ** p ≤ .01, *** p ≤ .001.
R^2 = Explanation rate, ΔR^2 = Change in explanation rate in each step.

TABLE 12 Correlations among the study variables in the HCD

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Affective/normative commitment	-	.03	-.03	-.05	.12*	.01	-.03	-.16*	-.15*	.16*	.02	-.10*	.08*
2. Gender	.04	-	-.03	.18*	.15*	.06	-.11*	-.01	-.05	-.03	.04	-.05	.03
3. Marital relationship	-.05	-.03	-	-.05	-.10*	-.00	-.02	.04	-.10*	-.10*	-.00	.01	.02
4. Education	.02	.18*	-.05	-	.22*	.05	.04	-.11*	-.00	-.07*	-.03	-.07*	-.04
5. Managerial position	.14*	.15*	-.10*	.22*	-	.07*	.00	-.18*	.01	.19*	-.00	-.20*	-.04
6. Hours worked weekly	.06	.06	-.00	.05	.07*	-	.10*	-.10*	.15*	-.08*	-.02	-.06	.04
7. Workload = WL	-.05	-.11*	-.02	.04	.00	.10*	-	-.10*	.35*	.01	.15*	.02	.05
8. Job insecurity = JI	-.24*	-.01	.04	-.11*	-.18*	-.10*	-.10*	-	.10*	-.06	.01	.10*	.03
9. Work-to-family conflict = WFC	-.25*	-.05	-.10*	-.00	.01	.15*	.35*	.10*	-	.04	.05	.03	.11*
10. Employee's age	.15*	-.03	-.10*	-.07*	.19*	-.08*	.01	-.06	.04	-	.09*	-.08*	-.06
11. WL x age	-.02	.04	-.00	-.03	-.00	-.02	.15*	.01	.05	.09*	-	-.12*	.29*
12. JI x age	-.12*	-.05	.01	-.07*	-.20*	-.06	.02	.10*	.03	-.08*	-.12*	-	.08*
13. WFC x age	.05	.03	.02	.04	-.02	-.04	.05	.03	.11*	-.06	.29*	.08*	-

Note. Correlations above the diagonal are for normative commitment (n = 657) and those below the diagonal are for affective commitment (n = 657).
* $p \leq .05$.

TABLE 13 Correlations among the study variables in the ICT

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Affective/normative commitment	-	.09	-.06	-.22*	.14*	.16*	.13*	-.16*	.03	.22*	-.11*	.10	-.09
2. Gender	.13*	-	-.04	-.01	.16*	.22*	-.00	-.05	.13*	.06	-.08	.02	-.16*
3. Marital relationship	.08	-.04	-	.05	-.22*	-.22*	-.14*	.03	-.24*	-.16*	.09	.01	.18*
4. Education	.24*	-.01	.04	-	.14*	.03	-.03	-.06	-.02	-.39*	.01	-.09	.10
5. Managerial position	.12*	.17*	-.22*	.14*	-	.27*	.18*	-.10	.24*	.09	-.11*	-.02	-.10
6. Hours worked weekly	.26*	.22*	-.23*	.03	.27*	-	.37*	.03	.33*	.19*	-.33*	-.14*	-.31*
7. Workload = WL	.10*	-.00	-.13*	-.03	.18*	.37*	-	.03	.39*	.12*	-.52*	-.11*	-.27*
8. Job insecurity = JI	-.15*	-.05	.03	-.06	-.10*	.03	.03	-	.20*	.16*	-.13*	-.54*	-.19*
9. Work-to-family conflict = WFC	-.07	.13*	-.23*	-.03	.24*	.32*	.39*	.21	-	.09	-.26*	-.17*	-.54*
10. Employee's age	.29*	.06	-.17*	-.38*	.10*	.19*	.11*	.15*	.09	-	-.17*	.10	-.16*
11. WL x age	-.13*	-.08	.09	.00	-.11*	-.34*	-.51*	-.12*	-.26*	-.17*	-	.05	.40*
12. JI x age	.02	.02	.01	-.09	-.02	-.14*	-.10*	-.54*	-.17*	.09	.06	-	.23*
13. WFC x age	-.12*	-.16*	.18*	.09	-.10*	-.31*	-.26*	-.19*	-.54*	-.16*	.40*	.24*	-

Note. Correlations above the diagonal are for normative commitment (n = 277) and those below the diagonal are for affective commitment (n = 278).
* $p \leq .05$.

TABLE 14 Correlations among the study variables in the mill

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Affective/normative commitment	-	.08	.08	-.16*	.11	-.08	-.13*	-.17*	-.11	.16*	.01	.09	-.03
2. Gender	.11	-	-.01	.11	.13*	.05	-.02	-.27*	.11	-.20*	.04	-.10	.12*
3. Marital relationship	.01	-.01	-	.00	-.17*	-.03	.09	.07	-.05	-.18*	.04	.06	-.00
4. Education	-.09	.11	.00	-	.42*	.21*	.00	-.08	.15*	-.31*	.03	-.00	-.02
5. Managerial position	.21*	.13*	-.17*	.42*	-	.15*	.10	-.16*	.20*	.06	.00	-.11	-.07
6. Hours worked weekly	.08	.05	-.03	.20*	.15*	-	-.04	-.10	.00	-.11	.15*	-.04	-.03
7. Workload = WL	-.16*	-.02	.09	.00	.10	-.04	-	.08	.39*	-.01	.24*	.03	.18*
8. Job insecurity = JI	-.31*	-.27*	.07	-.08	-.16*	-.10	.08	-	.22*	.27*	-.04	.36*	-.02
9. Work-to-family conflict = WFC	-.22*	.12	-.05	.15*	.20*	.00	.39*	.22*	-	.10	.15*	.03	.30*
10. Employee's age	.01	-.20*	-.18*	-.31*	.06	-.11	-.01	.27*	.11	-	-.23*	.04	-.15*
11. WL x age	.02	.04	.04	.03	.0 0	.15*	.24*	-.04	.15*	-.23*	-	-.16*	.52*
12. JI x age	.03	-.10	.06	-.01	-.11	-.04	.03	.36*	.03	.04	-.06	-	.13*
13. WFC x age	-.03	.12*	-.00	-.02	-.07	-.03	.18*	-.02	.30*	-.15*	.52*	.13*	-

Note. Correlations above the diagonal are for normative commitment (n = 193) and those below the diagonal are for affective commitment (n = 193).
* $p \leq .05$.

Moderator effects of age on the job demands – commitment relationship

Finally, it was examined whether an employee's age moderated the relationships between job demands and organizational commitment. The results showed that employee's age seemed to function as a moderator (older age as a buffer) in some of the relationships studied (see Step 5 in Table 11). First, the interaction effects between work-to-family conflict and age on affective and normative commitment were significant in the HCD (beta coefficient = .12 and .12, respectively). Second, it was shown that age had a negative moderator effect on the relationship between job insecurity and affective and normative commitment in the HCD (beta coefficient = -.09 and, -.08, respectively) and a positive moderator effect between job insecurity and normative commitment in the mill (beta coefficient = .22).

Graphical representations of these five interactions, given in Figures 5-9, were derived using the standardized regression coefficients of the regression lines for employees with high (1 SD above the mean) and low (1 SD below the mean) scores on the moderator variable (see Aiken & West, 1991). Figures 5-6 indicate that when work-to-family conflict at work was high in the HCD, affective and normative commitment was low, especially among younger employees, whereas among older employees the decrease in commitment, when moving from a low to high work-to-family conflict situation, was less steep. When the focus was on job insecurity, the younger employees in the HCD proved to be more protected than the older ones from the negative effect of job insecurity on affective and normative commitment (see Figures 7-8). The opposite result was found in the mill (see Figure 9): the older employees seemed to be better protected from the negative effect of job insecurity on normative commitment than their younger colleagues. However, in general the older employees were more committed than the younger ones.

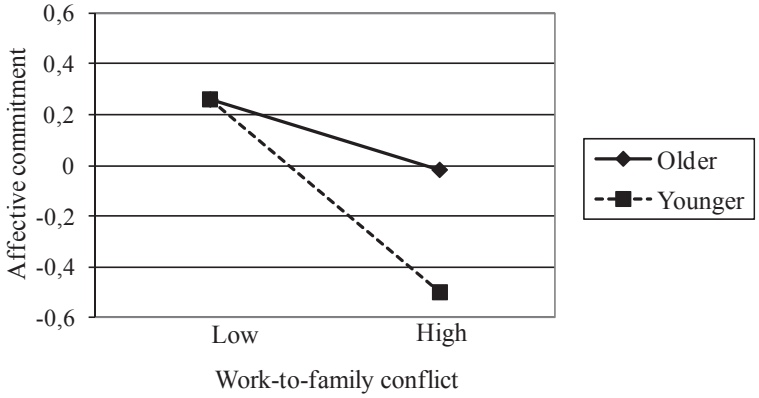


FIGURE 5 Age as a moderator between work-to-family conflict and affective commitment in the HCD

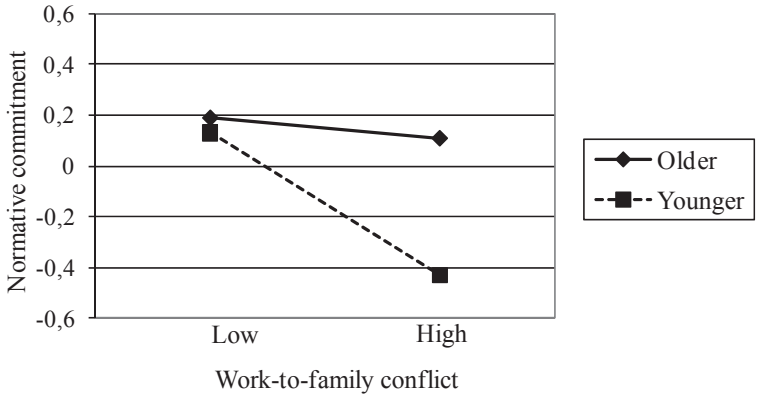


FIGURE 6 Age as a moderator between work-to-family conflict and normative commitment in the HCD

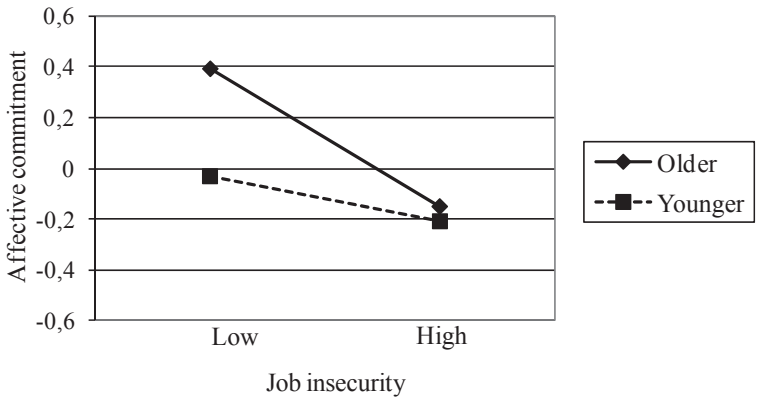


FIGURE 7 Age as a moderator between job insecurity and affective commitment in the HCD

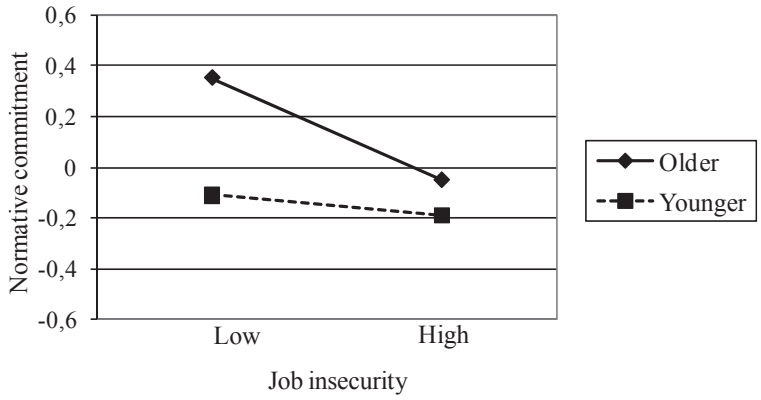


FIGURE 8 Age as a moderator between job insecurity and normative commitment in the HCD

FIGURE 9 Age as a moderator between job insecurity and normative commitment in the mill

3.4 Study IV: Longitudinal relationships between job demands and resources and organizational commitment

The main objective of Study IV was to examine the prospective relationships between work characteristics (i.e., job insecurity, work-to-family conflict, job control and humanistic organizational culture) and organizational commitment by using two-year longitudinal data collected from the health care district (HCD). To produce more reliable information on the causal relationships between work characteristics and commitment, regression models were used.

Examining traditional causality: work characteristics as predictors

When the work characteristics were examined as prospective antecedents of the dimensions of organizational commitment, the hierarchical regression analyses revealed (see Table 15) that only humanistic organizational culture (job resource), at T1 had predictive power for organizational commitment at T2 (see Step 5). Specifically, humanistic organizational culture at T1 seemed to foster employees' affective (beta coefficient = .43) and normative (beta coefficient = .35) commitment at T2 (see Model 1; Step 5). The former effect remained statistically significant even when the baseline level of affective commitment was controlled for (beta coefficient = .18) (see Model 2; Step 5). The correlations shown in Table 16 supported this observation by indicating that the highest significant cross-correlation prevailed between humanistic organizational culture at T1 and affective commitment at T2 (r = .44, p < .001). Altogether, job resources at T1 explained 17% of the variance in affective and 13% of the variance in normative commitment at T2 (see Model 1). In contrast to the correlation coefficients, job demands (i.e., job insecurity, work-to-family conflict) showed a non-significant temporal effect on the dimensions of commitment. They explained only 1-3% of the variance in the dimensions of commitment (see Model 1).

Of the demographic and work-related background factors, only age had a significant effect on affective and normative commitment (beta coefficient = .15 and .20, respectively), and this effect remained even after controlling for the baseline level of the dependent variables. That is, older employees proved to be more affectively and normatively committed to their organization than their younger colleagues. A similar finding emerged from the analysis of the cross-sectional data sets (see Study III). Thus, the effect of age on commitment seems to remain over time. The explanation rates of all background factors varied between 1% and 6% (see Models 1). The results of the regression analysis also indicated that normative commitment, in particular, turned out to be rather stable during the two-year follow-up period: the proportion of the variance explained by the previous measurement was 50% for normative and 36% for affective commitment.

TABLE 15 Work-related characteristics at T1 as antecedents for affective and normative commitment at T2 (testing normal causality)

Antecedents	Affective commitment T2 (n = 366)		Normative commitment T2 (n = 365)	
	M1 *β*	M2 *β*	M1 *β*	M2 *β*
Step 1				
Dependent variable at T1	-	.47***	-	.66***
ΔR^2	-	.36***	-	.50***
Step 2 – Demographics T1				
Gender (woman/men)	-.03	-.04	.03	-.00
Age (in years)	.15**	.10*	.20***	.10*
Education (low/high)	-.02	-.03	-.09	-.03
Marital relationship (yes/no)	-.03	-.02	-.05	-.03
ΔR^2	.03*	.01	.06***	.01
Step 3 – Structural work factors T1				
Managerial position (no/yes)	.08	.05	.06	.03
Hours worked weekly (low/high)	.02	.00	.03	.01
ΔR^2	.02*	.00	.01	.00
Step 4 – Job demands T1				
Job insecurity	-.05	-.04	-.02	.01
Work-to-family conflict	.02	.04	.03	.02
ΔR^2	.03**	.00	.01	.00
Step 5 – Job resources T1				
Job control	.03	.02	.07	.02
Humanistic culture	.43***	.18***	.35***	.03
ΔR^2	.17**	.02**	.13***	.00
R^2	.25***	.39***	.21***	.51***

Note. In Model 1 (M1) the dependent variable at T1 is not controlled for, whereas in Model 2 (M2) a baseline effect on the predicted variable is taken into account in the first step of each analysis.
β = Standardized beta-coefficient from the final step of the models.
R^2 = Explanation rate, ΔR^2 = Change in explanation rate in each step.
* p ≤ .05, ** p ≤ .01, *** p ≤ .001.

TABLE 16 Means, standard deviations, Pearson correlations of the study scales at T1 and T2 (n = 365-373)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
Time 1													
1. Job insecurity	2.94	0.77											
2. Work-to-family conflict	1.86	0.47	.04										
3. Job control	3.51	0.77	-.05	-.22***									
4. Humanistic culture	4.30	1.17	-.19***	-.22***	.29***								
5. Affective commitment	4.67	1.11	-.18***	-.14**	.22***	.57***							
6. Normative commitment	3.21	1.33	-.16***	-.13**	.21***	.49***	.62***						
Time 2													
7. Job insecurity	2.97	0.80	.44***	.09	-.07	-.16***	-.22***	-.17***					
8. Work-to-family conflict	1.90	0.52	.04	.67***	-.21***	-.24***	-.13**	-.17***	.19***				
9. Job control	3.45	0.78	-.15**	-.23***	.69***	.29***	.28***	.26***	-.14**	-.29***			
10. Humanistic culture	4.23	1.21	-.10*	-.14**	.25***	.61***	.43***	.40***	-.23***	-.34***	.37***		
11. Affective commitment	4.71	1.20	-.17***	-.08	.19***	. 44***	.61***	.50***	-.26***	-.28***	.32*	.56***	
12. Normative commitment	3.18	1.32	-.12*	-.08	.17***	.35***	.42***	.70***	-.13**	-.21***	.28***	.39***	.61***

Note. T1 = Measurement in 2003, T2 = Measurement in 2005.
* p ≤ .05, ** p ≤ .01, *** p ≤ .001.

Examining reverse causality: organizational commitment as a predictor

When testing the reverse causation, that is, whether the dimensions of organizational commitment at T1 would predict the experience of work characteristics at T2, the results revealed that both affective and normative commitment predicted each of the four work characteristics variables when the baseline level of the dependent variables was not included in the model (see Tables 17-18; Models 1). Thus, the more affectively and normatively committed the employees were at T1, the less job insecurity (beta coefficient = -.21 and -.18, respectively) and work-to-family conflict (beta coefficient = -.13 and -.17, respectively) they experienced at T2. In the case of job resources, it was found that high commitment at T1 predicted higher job control (beta coefficient = .26 and .26, respectively) and a more humanistic organizational culture (beta coefficient = .43 and .42, respectively) over time. The same significant relationships can also be observed in the correlation matrix (see Table 16). Only minor changes occurred after controlling for the baseline effect of the dependent variables (see Models 2): the dimensions of organizational commitment no longer predicted work-to-family conflict. However, the other lagged relationships indicating reverse causality (concerning job insecurity, job control and humanistic organizational culture) remained significant after adjusting for the baseline, demographic and structural work-related factors. In sum, affective commitment explained from 2% to 18% (see Model 1) and normative commitment from 3% to 16% (see Model 1) of the variance in different work characteristics. Thus, it seems that in this study, the reverse causality assumption gained more empirical support than the assumption of normal causality.

TABLE 17 Affective commitment at T1 as an antecedent for work-related characteristics at T2 (testing reverse causality)

Antecedents	Job insecurity T2 (n = 372)		Work-to-family conflict T2 (n = 373)		Job control T2 (n = 372)		Humanistic culture T2 (n = 370)	
	M1 *β*	M2 *β*	M1 *β*	M2 *β*	M1 *β*	M2 *β*	M1 *β*	M2 *β*
Step 1								
Dependent variable at T1	-	.43***	-	.65***	-	.66***	-	.56***
ΔR^2	-	.22***	-	.43***	-	.47***	-	.38***
Step 2 – Demographics								
Gender (woman/men)	-.01	-.03	-.05	-.06	-.04	-.00	-.01	-.01
Age (in years)	-.09	-.08	-.02	-.03	-.03	-.01	.03	.09*
Education (low/high)	-.17***	-.14**	-.02	-.01	.03	.01	.05	.08
Marital relationship (yes/no)	-.02	-.03	-.07	-.00	-.01	.00	-.01	-.01
ΔR^2	.05***	.02*	.01	.01	.01	.00	.01	.01
Step 3 – Structural work factors								
Managerial position (no/yes)	.01	.06	-.03	-.01	.11*	.04	-.00	-.04
Hours worked weekly (l/h)	-.10*	-.05	.19***	.05	-.08	-.04	-.02	-.01
ΔR^2	.01	.01	.03**	.00	.02*	.00	.00	.01
Step 4 –Commitment								
Affective commitment	-.21***	-.15**	-.13*	-.02	.26***	.12**	.43***	.11*
ΔR^2	.04**	.02**	.02*	.00	.06***	.02**	.18***	.01*
R^2	.10***	.27***	.06***	.44***	.09***	.49***	.19***	.41***

Note. In Model 1 (M1) the dependent variable at T1 is not controlled for, whereas in Model 2 (M2) a baseline effect on the predicted variable is taken into account in the first step of each analysis.

β = Standardized beta-coefficient from the final step of the models, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

R^2 = Explanation rate, ΔR^2 = Change in explanation rate in each step.

TABLE 18 Normative commitment at T1 as an antecedent for work-related characteristics at T2 (testing reverse causality)

Antecedents	Job insecurity T2 (n = 372)		Work-to-family conflict T2 (n = 373)		Job control T2 (n = 372)		Humanistic culture T2 (n = 370)	
	M1 *β*	M2 *β*	M1 *β*	M2 *β*	M1 *β*	M2 *β*	M1 *β*	M2 *β*
Step 1								
Dependent variable at T1	-	.43***	-	.65***	-	.66***	-	.56***
ΔR^2	-	.22***	-	.43***	-	.47***	-	.38***
Step 2 – Demographics								
Gender (woman/men)	.01	-.02	-.04	-.06	-.05	-.01	-.04	-.01
Age (in years)	-.09	-.08	-.01	-.02	-.04	-.02	.02	.08
Education (low/high)	-.20***	-.15**	-.05	-.02	.06	.03	.10*	.09*
Marital relationship (yes/no)	-.03	-.03	-.07	-.01	-.00	.00	.00	-.01
ΔR^2	.05***	.02*	.01	.01	.01	.00	.01	.01
Step 3 – Structural work factors								
Managerial position (no/yes)	-.00	.06	-.02	-.01	.11*	.04	.01	-.04
Hours worked weekly (l/h)	-.10*	-.05	.19***	.05	-.08	-.04	-.02	-.01
ΔR^2	.01	.01	.03**	.00	.02*	.00	.00	.00
Step 4 –Commitment								
Normative commitment	-.18***	-.12*	-.17*	-.08	.26***	.12**	.42***	.12*
ΔR^2	.03**	.01**	.03*	.01	.06***	.02**	.16***	.01*
R^2	.09***	.26***	.07***	.45***	.09***	.49***	.18***	.41***

Note .In Model 1 (M1) the dependent variable at T1 is not controlled for, whereas in Model 2 (M2) a baseline effect on the predicted variable is taken into account in the first step of each analysis.
β = Standardized beta-coefficient from the final step of the models, * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.
R^2 = Explanation rate, ΔR^2 = Change in explanation rate in each step.

4 DISCUSSION

4.1 Main findings of the study

4.1.1 Three core meanings for organizational commitment

The interview study (Study I) made it possible to analyse the meanings that the interviewees gave to organizational commitment. The first meaning that emerged mainly in the HCD – *obscure construct* – indicates that the informants were unable to give a clear definition of organizational commitment and tended to confuse it with other forms of work commitment (for work commitment constructs, see e.g., Cooper-Hakim & Viswesvaran, 2005). Thus, organizational commitment was not as unambiguous concept as has sometimes been claimed (Porter et al, 1974; Meyer et al., 1993). In fact, the result was in line with recent findings in the commitment literature, which emphasize that it is not easy to discriminate between the various constructs of work commitment – at least for lay study participants (e.g., Carmeli, Elizur, & Yaniv, 2007; Cooper-Hakim & Viswesvaran, 2005; McKenna, 2005; Randall et al., 1990; Singh & Vinnicombe, 2000).

An explanation for the informants' readiness to speak about job involvement, occupation and work unit commitment rather than organizational commitment could be that these contexts appeared more concrete and familiar to them than geographically dispersed, extensive, abstract, and continuously changing organizations. For instance, for employees work units may be more salient social units than whole organizations, as they serve employees' needs for distinctiveness and are more important instances of socialization and control (Riketta & Van Dick, 2005; see also Anderson & Thomas, 1996). Employees also usually spend most of their organizational life in work units, and thus the level of familiarity and cohesion experienced inside the unit is likely to be higher than that experienced in the organization as a whole (Beyer, Hannah, & Milton, 2000). In addition, there is much research evidence showing that it is easier for individuals to identify with smaller units than big and complex structures (e.g.,

Mueller & Lawler, 1999; Riketta & Van Dick, 2005; van Knippenberg & van Schie, 2000). Some studies have also indicated that, especially for nursing professionals, occupational commitment (e.g., commitment to high quality patient work) is more relevant and meaningful than organizational commitment (e.g., Cohen, 1998; Laine, 2005; Stordeur et al., 2003). In fact, for them the organization may represent simply a place in which to fulfill their work-related needs.

Furthermore, it is possible that in today's insecure employment situation, where organizations are less able to guarantee security of employment, occupational commitment is more important for employees than organizational commitment (see Cooper-Hakim & Viswesvaran, 2005; Noordin, Williams, & Zimmer, 2002). Consequently, it seems that organizations should invest more energy in forms of commitment other than organizational commitment if they want to retain their employees in circumstances in which change, insecurity and ever increasing individualism are frequently present (see also Neininger, Lehmann-Willenbrock, Kauffeld, & Henschel, 2010; Noordin et al., 2002; Riketta & Van Dick, 2005; Stordeur et al., 2003). Recent findings on work engagement also support this reasoning by showing how commitment to, or personal investment in, work tasks performed as part of one's job is a relevant concept in today's working life (for a review of work engagement, see Christian, Garza, & Slaughter, 2011; see also Mauno et al., 2007).

The second meaning that was given to organizational commitment related to employees' sense of *responsibility*. This finding lent support to the previous interview studies of Singh and Vinnicombe (2000) and Randall and colleagues (1990) according to which committed employees are, for instance, ready to engage in self-sacrificing behavior, personally involved, responsible and always present in the workplace. Responsibility in the present study had some conceptual similarity with the normative aspect of organizational commitment, in so far as normative commitment has been defined as an one's *obligation or duty* to do one's best in one's work or job, do a little extra to help out and meet organizational goals and interests (Allen & Meyer, 1990; Herscovitch, & Meyer, 2002; Meyer & Allen, 1991; Wiener, 1982). In fact, responsibility in this study also highlighted employees' efforts to meet organizational expectations (i.e., duties, goals and interests) and to avoid various types of malpractice (i.e., withdrawal behavior). In addition, responsibility resembled the concept of organizational citizenship behavior (OCB) – at least when OCB has been characterized as involving features such as "volunteering for extra-job activities, helping others, and upholding workplace rules and procedures regardless of personal inconvenience" (see a review by Organ & Ryan, 1995, p. 776).

The repeated occurrence of responsibility in the informants' speech could also be due to the nature of their jobs. Particularly, in the HCD, but also in the ICT company, neglect of one's duties could have serious consequences, and awareness of this may have fostered employees' sense of responsibility. For instance, in the HCD neglect could have jeopardized patients' health, whereas in the ICT company irresponsible behavior might lead to a blockage in a data transmission chain. Moreover, it is possible that sense of job-related responsibil-

ity is more common in jobs where strict rules or hierarchical behavior are emphasized – as it usually is the case in healthcare organizations – than in jobs that are more creative or include more decision-making latitude (see Mirels & Garrett, 1971). In addition, the age of the interviewees may perhaps explain the result. In both the organizations studied the average age of the informants' was approximately 50 years. It is possible that among older employees values emphasizing responsibility at work were more important than they were among younger employees (see e.g., Hedge et al., 2006; Peterson & Spiker, 2005), and thus the result reflected some sort of cohort effect.

In fact, the *third* meaning associated with organizational commitment was *age-related work involvement.* This finding was consistent with the observation made by Zemke, Raines and Filipczak (2000). They argue that the attitude of younger workers seems to be more one of "working to live" than of "living to work", which has been seen as more characteristic of older employees (see also Loughlin & Barling, 2001). Moreover, there is earlier research evidence showing that organizational commitment usually increases with age and tenure (e.g., Cohen, 1992; Mathieu & Zajac, 1990; Meyer et al., 2002). A recent study among Finnish nurses under the age of 30 has even revealed that almost a third of young nurses have often thought of giving up nursing and that one factor associated with this has been a lack of affective professional commitment (Flinkman, Laine, Leino-Kilpi, Hasselhorn, & Salanterä, 2008).

The higher level of work involvement found among older employees can be explained through socialization (see Meyer & Allen, 1997), as it is possible that their early socialization experiences related to the value of work have been different from the experiences of younger employees. In older employees' childhood and youth the importance of work (i.e., work involvement or the Protestant work ethic) was perhaps more valued than it is in today's society, where careerist and individualistic values are more prevalent (see Triandis, 1995; Noordin et al., 2002; Zemke et al., 2000). Furthermore, it has been shown that employees' work values, beliefs and attitudes may be shaped by their perceptions of their parents' work experiences. Thus, if the informants in this study have seen their parents making great sacrifices at work and showing commitment to their employer, this may have similarly affected their own values and behavior as well as their commitment (see Loughlin & Barling, 2001; Vandenberg & Self, 1993).

In addition, older employees may represent the so called traditional career model in which security, stability, commitment and long-term contracts are valued, whereas younger employees may be more familiar with the so called new career model, also known as, the protean or boundaryless career. In this model the emphasis is on self-directed careers, employee mobility, employees' own values, transferable skills and, furthermore, diminishing commitment (see e.g., Briscoe & Hall, 2006; Peterson & Spiker, 2005; Zaleska & de Menezes, 2007). Finally, as older workers may have more difficulties in gaining re-employment or finding a similar new job after redundancy (i.e., have a lower level of occupational mobility) (Koeber, & Wright, 2001; see also Lippmann, 2008), or replicating their current psychological contracts elsewhere (i.e., contract replicability)

(Ng & Feldman, 2008), they are probably more dependent on their current job and express stronger commitment to it (see e.g. Cheng & Chan, 2008; Claes & Van De Ven, 2008; Finegold et al., 2002; Ng & Feldman, 2008).

Altogether, my finding is challenging from the organizational point of view. It indicates that organizations need to resolve the question of how to commit employees of different ages as well as handle the possible problems resulting from the different meanings attributed to commitment by employees of different ages (see also Bal, Jansen, van der Velde, de Lange, & Rousseau, 2010). I will return to this topic later under the heading Practical implications (see Chapter 4.3).

4.1.2 Organizational commitment associated with positive evaluations of work

The main goal of this dissertation was to examine psychosocial job and organizational characteristics as antecedents of organizational commitment. The findings of the cross-sectional (Study III), longitudinal (Study IV) and interview (Study I) studies differed from each other regarding the direction of the predictive relationships between the studied phenomena.

Insecurity related to the job and organization was one of the most important factors associated with employees' weak organizational commitment in this study. According to the interview study, a climate of uncertainty and obscurity decreased employees' commitment to their organizations. The interviewees spoken about the negative consequences of downsizing, redundancies and uncertainty - related to organizational goals, strategies and changes - to commitment. The findings of the cross-sectional study (Study III) supported this by showing that the more job insecurity the participants experienced, the less affectively and normatively committed they tend to be. Of the other job demands explored in same study, work-to-family conflict was also negatively related to respondents' affective and normative commitment, whereas workload associated negatively with normative commitment only in the mill. Altogether, these results were partly in line with the hypothesis *H3*.

When work characteristics (i.e., job insecurity, work-to-family conflict, job control, humanistic organizational culture) were examined as antecedents of organizational commitment using the two-year follow-up data from the HCD (Study IV), only two statistically significant temporal effects were found, both from a humanistic organizational culture. That is, when the employees assessed their organizational culture as humanistic in 2003, they expressed higher affective and normative commitment to the organization in 2005. The finding was consistent with the results of the organizational culture study (Study II, see pp. 63-64) but offered only modest support for the traditional causality hypothesis, *H6*. In fact, the longitudinal data showed the strongest support for the reverse causality hypothesis, *H7*. Accordingly, organizational commitment proved to function as a stronger precursor of work characteristics than vice versa. Thus, the more affectively and normatively committed the employees were in 2003, the less job insecurity and work-to-family conflict they experienced in 2005, the

better job control they reported in 2005, and the more humanistic they regarded the organizational culture to be in 2005. With respect to job control, however, the interview study emphasized the role of employees' participation and large job scope (i.e., having a challenging, interesting and significant job), as positive antecedents of organizational commitment.

The results on job characteristics as antecedents of organizational commitment (i.e., job insecurity, work-to-family conflict and workload in Study III, job control in Study I, and humanistic organizational culture in Study IV), were in line with those of the previous cross-sectional studies (e.g., Allen et al., 2000; Bakker et al., 2010; Cheng & Chan, 2008; Cohen, 1992; De Cuyper & De Witte, 2006a; Lok & Crawford, 2004; Lord & Hartley, 1998; Luthans & Sommer, 1999; Silverthorne, 2004; Robertson et al., 2007; Spector, 1986; Sverke et al., 2002; Worrall, Cooper, & Campbell-Jamison, 2000). In light of the psychological contract theory (Rousseau, 1989), the participants in my studies might have expected from their employers a reasonable amount of job security, workload and job control as well as good possibilities to balance work and family and a humanistic organizational culture in exchange for their contributions at work. If, however, the employees feel that the organization has not fulfilled its part of this relational psychological contract, i.e., perceive a breach of contract by the employer (see Morrison & Robinson, 1997), then this may have the effect of reducing their commitment to the organization (e.g., Bal et al., 2008; Zhao et al., 2007).

The finding of a humanistic organizational culture and job control as antecedents of commitment gives reason to believe that the features of a supportive organization (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002) might also have been present and positively affected employees' organizational commitment. In fact, when the organizational culture is perceived to be humanistic and when employees are allowed to determine their working methods and goals by themselves and to use their skills, it is possible that the organization is supportive in other respects as well. In addition, both a humanistic organizational culture and organizational commitment could be characterized as organizational level phenomena which could perhaps be more strongly related to each other than pure work-related constructs.

The findings concerning organizational commitment as an antecedent of work characteristics indicated that affective and normative commitment could be characterized as positive resources, which may help employees to gain other resources (e.g., high job control) or assess job demands (e.g., job insecurity) as less harmful. Thus, high organizational commitment might protect employees against negative job demands, i.e., organizational commitment may also constitute a job resource (see the JD-R model by Demerouti et al., 2001). This finding, in turn, is very well in line with the COR theory (Hobfoll, 1989, 2002; Hobfoll & Shirom, 2001) suggesting that resources are likely to accumulate. In addition, the context (i.e., health care organization) in which the follow-up study was conducted may explain the associations found between normative commitment and work characteristics. In fact, the interview study indicated that high norma-

tive commitment by employees has a positive influence on their job behavior and job attitudes.

Previous longitudinal studies exploring organizational commitment as an antecedent of these particular work-related characteristics have, to my knowledge, been very few, and thus similar findings have rarely been reported. In fact, Meyer and colleagues' (2002) meta-analysis, reporting on work-family conflict as an outcome of commitment, was the only study found. In their study, affective commitment related negatively to work-family conflict. Altogether, more research is needed on the causal relationships found here before reliable conclusions can be drawn. With respect to the other work commitment constructs, job and work characteristics have also been far less studied as their outcomes (cf., De Lange, De Witte, & Notelaers, 2008).

In the longitudinal study, the absence of a relationship between job characteristics (i.e., job insecurity, work-to-family conflict, job control) and organizational commitment could be explained, at least partially, through the JD-R model (Demerouti et al., 2001). Accordingly, job insecurity and work-to-family conflict can be seen as job demands (or stressors) that deplete an employee's resources and might, therefore, be more likely to lead to strain outcomes than to attitudinal outcomes (e.g., organizational commitment) (Bakker et al., 2003, 2005; Demerouti et al., 2001; Mauno et al., 2006). In fact, recent empirical studies have provided support for this by showing less robust associations between job demands and organizational commitment than between job demands and physical symptoms and burnout (e.g., Allen et al., 2000; Bakker et al., 2003; Mauno et al., 2006).

The non-significant association between work-to-family conflict, job insecurity and organizational commitment could also depend on the relatively low prevalence of work-to-family conflict ($M < 2.0$, on a scale from 1 to 4) and job insecurity ($M < 3.0$, on a scale from 1 to 5) in the data. Obviously, employees need to experience higher work-to-family conflict and job insecurity before a significant relationship with commitment can emerge (i.e., threshold effect). Moreover, it is also possible that the relationship between the phenomena were indirect, that is to say, mediated or moderated by other factors (e.g., job satisfaction, supportive organizational climate) (see e.g., Casper, Buffardi, Erdwins, & Martin, 2002; Llorens et al., 2006; Mauno et al., 2006), which were not examined in the present study. Future studies should therefore extend the design of this study by also including potential mediators.

The absence of lagged associations between the phenomena could also be due to the two-year time lag between the measurements, which might not have been sensitive enough to detect the causal effects. Zapf, Dormann and Frese (1996, p. 158) have, for instance, stated that "time lags that are too short may lead to the conclusion that no causal effects exist, whereas a time lag that is too long solely leads to an underestimation of the true causal impact". It is possible that if the time lag in the present study had been shorter, for example, six months, more robust relationships would have appeared (see also De Jonge et al., 2001; Smulders & Nijhuis, 1999). However, for various practical reasons (re-

sources, funding, consultative aims) it would not have been possible to change the time-lag of used in this study.

4.1.3 The effects of job demands on organizational commitment varied by age

The design of this study made it possible to clarify the moderating role of an employee's age in the job demands – organizational commitment relationship. However, before doing so, the direct effect of an employee's age on commitment was examined. The results revealed, as predicted in hypothesis *H4*, that age was positively associated with organizational commitment. Thus, the older the employees were, the more affectively and normatively committed they proved to be. This finding was very much in line with previous findings (e.g., Cohen, 1992; Mathieu & Zajac, 1990; Meyer et al., 2002; Ng & Feldman, 2010b) and was supported by the interview data, where the participants underlined commitment as an age-related phenomenon. Possible interpretations of this result include following: 1) the older employees might have been more strongly bound to the organization by various benefits acquired during their careers (e.g., Finegold et al., 2002; Koeber & Wright, 2001; Meyer & Allen, 1984); 2) their employment opportunities in the labor market might have been worse than those of their younger colleagues (e.g., Koeber, & Wright, 2001; Ng & Feldman, 2009, 2008; Lippmann, 2008); 3) commitment might have been an important job goal for the older employees (see SOC theory by Baltes et al., 1999); or/and 4) organizational commitment might have had a different meaning/value for the older employees than their younger colleagues, as also indicated the interview study (i.e., birth cohort effect, see e.g., Finegold et al., 2002; Hedge et al., 2006; Peterson & Spiker, 2005).

The results of the moderator analysis partially supported the assumption that older age would protect the employee against the negative effects of job insecurity, workload and work-to-family conflict on organizational commitment. The study revealed, in line with hypothesis *H5*, that organizational (both affective and normative) commitment decreased among older employees less than among younger employees in a situation where work-to-family conflict increased. This moderator effect, however, emerged only in the HCD. Another moderator effect found in the HCD was contrary to the predicted outcome; the older the employees were, the more their organizational (affective and normative) commitment decreased when job insecurity was reported to be high (see also Claes & Van De Ven, 2008; Finegold et al., 2002). One contrary result, consistent with hypothesis *H5*, was found in the mill; organizational (normative) commitment decreased more among the younger than older employees when job insecurity was perceived as high. Overall, the role of an employee's age on affective and normative commitment depended not only on the particular job demands studied, but also on organization in question. Thus, type of organization also moderated the relationships.

The finding that the older employees perceived work-to-family conflict as less harmful to affective and normative commitment than their younger col-

leagues could be explained by the following reasoning: first, according to the socioemotional selectivity theory (Carstensen et al., 1999), older employees' might have tolerated the possible problems related to balancing between work and family better because of their approaching retirement age. In other words, older employees tend to experience fewer negative emotions, show less negative affectivity and self-regulate their emotions after negative events better than younger employees who will perhaps also need to handle these problems in the future (e.g., Carstensen et al., 1999, 2003; Charles et al., 2001; see also De Lange et al., 2010). Second, the older employees might initially have experienced less work-to-family conflict than the younger ones (e.g., Matthews, Bulger, & Barnes-Farrell, 2010) because they might have no longer had small children living at home. Third, the older employees might have had more realistic expectations about what to receive from the organization (see De Vos et al., 2003; Hedge et al., 2006; Thomas & Anderson, 1998), and thus did not necessarily expect so much effort from the employer to facilitate the work-family balance. In fact, it is possible that work-to-family balance was part of the younger employees' psychological contract in the HCD, particularly, as the organization was female-dominated and more than half of the respondents had children living at home. Consequently, contract breach in a form of perceived work-to-family conflict might have appeared to the younger employees in the HCD as a more severe violation of their psychological contract than it did to their older colleagues, and hence decreased, their organizational commitment more.

It should, however, be born in mind that when the children of the older employees were small, these employees probably had similar, if not severer problems balancing between work and family than their younger counterparts today. As work-to-family conflicts are nowadays discussed more, younger employees may perhaps feel that the organization should do more to avoid these problems or to alleviate them, whereas among older employees work-to-family conflict may be regard more as personal issue related to one's private life. Finally, it is also possible that the older employees might have had better work-family coping strategies (e.g., capability to prioritize/delegate responsibilities at work and at home) which helped them to alleviate work-to-family conflict (for strategies for coping with work-family conflict, see Somech & Drach-Zahavy, 2007).

The result that older age either protected the employees against the negative effect of job insecurity on normative commitment (in the mill) or did not protect against the negative effect of job insecurity on affective and normative commitment (in the HCD) cannot solely be explained through the socioemotional selectivity theory, as hypothesized in the Introduction to this dissertation. The job dependence perspective (Greenhalgh & Rosenblatt, 1984) can offer an alternative explanation. According to this view, age reflects occupational mobility (i.e., the perceived likelihood of finding a similar job in another organization) and economic insecurity (i.e., the perceived inability to meet one's living expenses if the current job is lost). Thus, employees who are highly dependent on their current employment can suffer more from and have stronger

negative reactions to job insecurity (Greenhalgh & Rosenblatt, 1984; see Cheng & Chan, 2008). A few previous studies have supported this by showing that job insecurity had more negative effect on organizational commitment among older employees (e.g., Claes & Van De Ven, 2008; Finegold et al., 2002). Another possible explanation is that older employees have regarded job security as a part of their psychological contract, and therefore its breach (i.e., job insecurity) has a more negative effect on their organizational commitment. Younger employees, on the other hand, might have lower expectations concerning job security as they more often work on temporary contracts (e.g. Cavanaugh & Noe, 1999) and/or their psychological contract differs from that of older employees.

It is possible that the employees of the HCD and mill differed from each other in their prospects of finding a new/similar job in their current places of residence. In the health care sector in Finland career opportunities are good as the sector suffers from a lack of qualified employees (see e.g., Jyväkorpi, 2006). Thus, it is likely that the younger employees in the HCD, who did not, necessarily, have family responsibilities that would tie them to the same place of residence, would more easily be able to change their employer, and hence, for them job insecurity did not appear such a severe problem. The employees at mill, on the other hand, did not perhaps have similar opportunities to change their employer because the mill was already the main employer in the community and the labor force in the paper and forest industry in Finland is being reduced (see e.g., PTT'S forecast for the Finnish forest sector 2008-2009, 2008). In addition, it could be so that the younger employees in the mill had more economic responsibilities (e.g., mortgage, study loan) than their older colleagues, which caused them to evaluate job insecurity as more harmful (e.g., Claes & Van De Ven, 2008; Finegold et al., 2002).

To sum up, my study showed that the moderating role of age can depend on the choice of variables to be studied as well as organizations. Moreover, it should not be forgotten that what is regarded as a breach of the psychological contract by one individual may equally be seen as a part of the contract by another.

4.1.4 Organizational characteristics explained organizational commitment

The present study also revealed different organizational antecedents of organizational commitment. According to the interview (Study I) and quantitative (Study II) studies, organizational culture and leadership proved to be important antecedents of commitment. In addition, organizational structure and different external factors were found to explain organizational commitment.

Organizational culture and leadership

The relevance of the organizational culture to employees' organizational commitment emerged in the interview study (Study I). According to the results, cultural confusion and inequality were seen to decrease organizational commitment in the ICT company. This finding supported the findings of the few exist-

ing organizational cultural studies, which have concluded that if a shared and strong organizational culture is lacking, individuals are usually less committed to their organizations (e.g., Beyer et al., 2000; Meyer et al., 2010). Deal and Kennedy (2000) have pointed out that in a weak organizational culture employees do not have a clear picture of what they should do and how they should do it, which also seemed to be the case in the present ICT company. Moreover, culture of a subunit has been found to be more predictive of organizational commitment than the culture of the whole organization (e.g., Lok & Crawford, 1999, 2001). The informants' stronger commitment to their own sector instead of to the whole company might, for instance, be due to cultural similarity between the sector and its employees. In other words, if the sector's values and behavioral norms and practices resemble those of the employees (i.e., value congruence see O'Reilly, Chatman, & Caldwell, 1991), it is easier for the latter to commit to the sector than to the whole company (e.g., Finegan, 2000; O'Reilly et al., 1991; Verquer, Beehr, & Wagner, 2003). An identical outcome may also result, if the employees have participated in shaping their own sector's culture. This is possible particularly when employees have a long history in the same sector's employ (see Schein, 1990).

In this study, I did not examine organizational culture at the subunit- or sectoral-level because I did not have precise information on whether the employees in a particular unit actually worked in close proximity to each other or not. During several organizational visits, I also got an impression that employees who belonged administratively to the same unit might also be working physically in different units, buildings, or even cities. Thus, their social interaction, which is a key factor when organizational culture is studied as a group-level phenomenon (see e.g., Denison, 1996; Schein, 1990; Scheider, Salvaggio, & Subirats, 2002), would not be very frequent, not to mention daily-based. In addition, the number of respondents was rather low in some units, and therefore a unit-level analysis could have been conducted only in the biggest units. Nevertheless, it is possible that the organizational units differed from each other in their organizational culture. However, my focus was on qualitative aspects of organizational culture (e.g., how humanistic the culture was from the viewpoint of an employee) rather than the strength of the culture (e.g., how strong the humanistic culture was in different units) (see Lindell & Brandt, 2000; Scheider et al., 2002), which would have needed a different methodological approach (i.e., multilevel modeling).

The relationship between organizational culture and organizational commitment was also examined by utilizing cross-sectional data (Study II). The analyses were done in three phase. In the first of these, the results of FMM revealed that, across the organizations, organizational culture was characterized by three separate latent cultural classes, which were labeled rule-oriented class, human-oriented class and task-oriented leadership class. This finding supported the existing organizational cultural theories (e.g., Cameron & Quinn, 1999; Hofstede, 2001; see also Berson et al., 2008) and the hypothesis *H1* predicting that people-, hierarchy- and task-oriented classes would be identified in the da-

ta. The rule- and human-oriented classes – according to how they were named – were almost identical to the hierarchy- and people-orientations found in prior theoretical and empirical studies (e.g., Cameron & Quinn, 1999; Cooke & Szumal, 1993; Hofstede, 2001; Lok & Crawford, 2004). For example, in both rule- and hierarchy-oriented cultures high power distance and strict orders from top down are usually present, whereas in people- and human-oriented cultures social relations, including respect for employees and their well-being, are more characteristic.

The task-orientation category, emphasized in prior studies (e.g., Cameron & Quinn 1999; Hofstede et al., 2001), did not, however, emerge from the data in an identical way. Instead, the study revealed a task-oriented leadership class. One reason for the absence of a "pure" task-oriented class might be that the dimension "Job performance" (included in the original OCP-50 survey and characterizing task-orientation) did not load on any factors in the EFAs and CFAs and was, therefore, excluded from the FMM. Nevertheless, some conceptual similarity can be seen between the task-orientation and task-oriented leadership class when the task-oriented leadership class is defined, as in this study, through the importance of the leader in communicating the organizational vision, targets, an acceptable code of behavior, and rules. In both dimensions tasks and operation have been seen to determine the organizational culture. In fact, the only difference between the dimensions is perhaps the leadership function, which was connected to task in this study, which has not been the case in earlier theories or research.

The results of the second phase revealed that the relative proportions of the three cultural classes varied across organizations, although each class existed in each organization. Altogether, the HCD was the least and the ICT company the most human-oriented. A task-oriented leadership culture was dominant in each organization, including the HCD. The reason for this could lie in the organizational traditions and the operational basis of the organizations studied. Thus, in each organization managers and superiors usually played a major role in determining goals, duties and responsibilities. Previous studies have also argued that managers generally have a notable effect on cultural formation (see e.g., Berson et al., 2008; Schein, 1990). Moreover, in the mill and HCD, the tradition of management salience was longer than in the ICT company, where management was more decentralized, largely because of the amount of project- and team-based work, which, in fact, might explain the lower proportion of membership of the task-oriented leadership class in that organization. Another explanation for the dominant role of a task-oriented leadership culture could be that, in the present economic climate, organizations are laying increasing emphasis on their economic and operational targets in order to survive in ever-intensifying competition, and leaders were perhaps also expected to communicate these targets more effectively. The finding that a human-oriented culture was most common in the ICT company, rather than HCD, was surprising. Humanistic practices and norms are usually thought to be more dominant in health care organizations than ICT, where economic realities can be taken for granted. This study might, however, bear witness to a diminution in humanistic

practices and values in health care organizations, as it is a fact that labor shortages, time pressures, job stress, and economic realities are becoming more common than hitherto in this field (see also Billeter-Koponen & Fredén, 2005). Preliminary analyses on job demands in the three organizations also supported this by showing that the HCD employees reported the highest workload. In addition, the low proportion of membership of the human-oriented class in the HCD might also result from the occupational hierarchy present in this organization.

When matching the cultural classes with the commitment constructs in the third phase of Study II, the results revealed that employees who felt that the organizational culture was highly rule-oriented (Class 1) were less affectively and normatively committed than those who assessed the culture as human-oriented (Class 2) or referred to task-oriented leadership (Class 3). These findings were in line with the hypothesis *H2* and previous cross-sectional studies (e.g., Glisson & James, 2002; Lok & Crawford, 1999, 2004; Silverthorne, 2004) and, furthermore, offered support for the POS theory (Eisenberger et al., 1986). The interview study (Study I) showed somewhat similar results by emphasizing the important role of organizational leadership, humanistic HR practices and communication on organizational commitment. Accordingly, managers were expected to be present, behave as a role model and take humanistic aspects into account in their leadership style in order to foster employees' commitment. It was also hoped that organizations would value and appreciate their employees and foster their employees' capability, development and participation. Moreover, it was suggested that organizations should increase open communication and free information sharing if they are seeking to raise employees' commitment.

These expectations were consistent with many previous empirical studies according to which leaders may foster employees' organizational commitment by treating them with consideration, respect and fairness (e.g., Allen & Meyer, 1990; DeCotiis & Summers, 1987; Robertson et al., 2007), trusting them, giving them authority to do the job, creating a common vision and involving subordinates in this vision (e.g., Chiok Foong Loke, 2001; Kidd & Smewing, 2001; Ko et al., 1997; McKenna, 2005; Meierhans, Rietmann, & Jonas, 2008; Meyer & Allen, 1997; Robertson et al., 2007). Previous studies have also shown that employees are more committed if they obtain adequate information to do their jobs, and if this information is presented to them via formal bureaucratic channels rather than informally through colleagues (Postmes, Tanis, & de Wit, 2001). Moreover, in order to increase employees' commitment, communication should be supportive (Hartman Ellis, & Miller, 1994) and clear when it concerns organizational intentions, activities and performance (DeCotiis & Summers, 1987). Bambacas and Patrickson (2008) also emphasized managers' interpersonal communication skills in enhancing employees' organizational commitment; i.e., managers should, among others, be clear, consistent, truthful, open and honest in what they say (see also Meierhans et al., 2008).

An explanation for the positive relationship between a human-oriented culture and the commitment constructs could be that in humanistic organizations

(cultures) employees are usually respected, valued and cared for. In addition, employees' needs and expectations are taken into account, and particular interest is shown in employees' well-being. In this respect, a human-oriented culture has some conceptual similarity with the POS theory (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Altogether, it can be argued that employees who feel that the organization values their contribution, cares about their well-being, and tries to fulfill their expectations and needs, probably increase their affective and normative commitment to the organization. In this study, a human-oriented culture was characterized by encouragement, free sharing of information, a humanistic workplace and proper socialization, all of which can be seen as essential dimensions of the humanistic culture (workplace) described above.

The positive linkage between a task-oriented leadership culture (Class 3) and organizational commitment can be explained, for example, through the leadership behavior characteristic of this cultural class. If the organizational culture emphasizes that leaders should communicate the organizational vision, clear targets, and set an example as positive role models, this might increase employees' trust in management and perhaps decrease their job insecurity, which is widespread in today's global economy. In turn, this may raise the level of employees' emotional- and loyalty-based commitment (see Albrecht & Travaglione, 2003; Sverke et al., 2002). However, this interpretation can only remain at the level of conjecture, as it was not examined whether trust in management or job insecurity mediates the effects between organizational culture and commitment. Therefore, the mediating processes between these phenomena call for more careful examination in the future. Nevertheless, it seems that if the aim is to increase organizational commitment, more attention should be paid to supportive, directive, participative, and achievement-oriented leadership behavior (i.e., leadership behavior defined by the path-goal theory, see House, 1996; see also Yiing & Ahmad, 2009; Steyrer, Schiffinger, & Lang, 2008).

The negative association between a rule-oriented culture and organizational commitment may, on the other hand, be accounted for by the following reasoning: it is likely that a rule-oriented culture (i.e., where strict regulations, closely defined structures, rationality, division of work, high power distance and authority are usually present) inhibits an employee's participation and initiative, creates a climate of alienation and dehumanizes employees. Consequently, it can be assumed that these negative work experiences will then have an adverse effect, not only on an employee's emotional-based (affective), but also her/his loyalty- or obligation-based (normative) commitment.

Organizational structure

The interviewees in the HCD also associated organizational structural factors with employees' low organizational commitment. Altogether, the large and scattered organization was seen as faceless and remote, and thus a factor impairing organizational commitment. This result is understandable, given the features of the HCD (see p. 36). In fact, employees' organizational commitment has proved to be stronger in small or middle-sized organizations such as nurs-

ing homes than in large hospitals (Laine, 2005; Stordeur et al., 2003). The finding was also in line with the few earlier quantitative organizational commitment studies, where small and flat organizations have been found to increase commitment although the connections have been neither strong nor consistent (e.g., DeCotiis & Summers, 1987; Mathieu & Zajac, 1990; Meyer & Allen, 1997).

An explanation for the employees' stronger commitment to smaller units can be offered by Lawler's (1992) choice-process theory. Accordingly, in nested organizational structures, where employees can form commitment to multiple units, they usually show the strongest commitment to the most proximate and the weakest to the most distant units (see also Mueller & Lawler, 1999). One reason for this is the belief of employees that in small units they have more freedom of choice, self-determination and sense of control, which, in turn, produce positive emotions and increase commitment (Mueller & Lawler, 1999). From the organizational perspective, the results of this study indicate that managers should explain the structure and content of the organization to their subordinates and promote flat and small organizational structures (i.e., teams, work units). This also prompts the consideration that it might be worth focusing on smaller units rather than organizations when measuring employees' commitment.

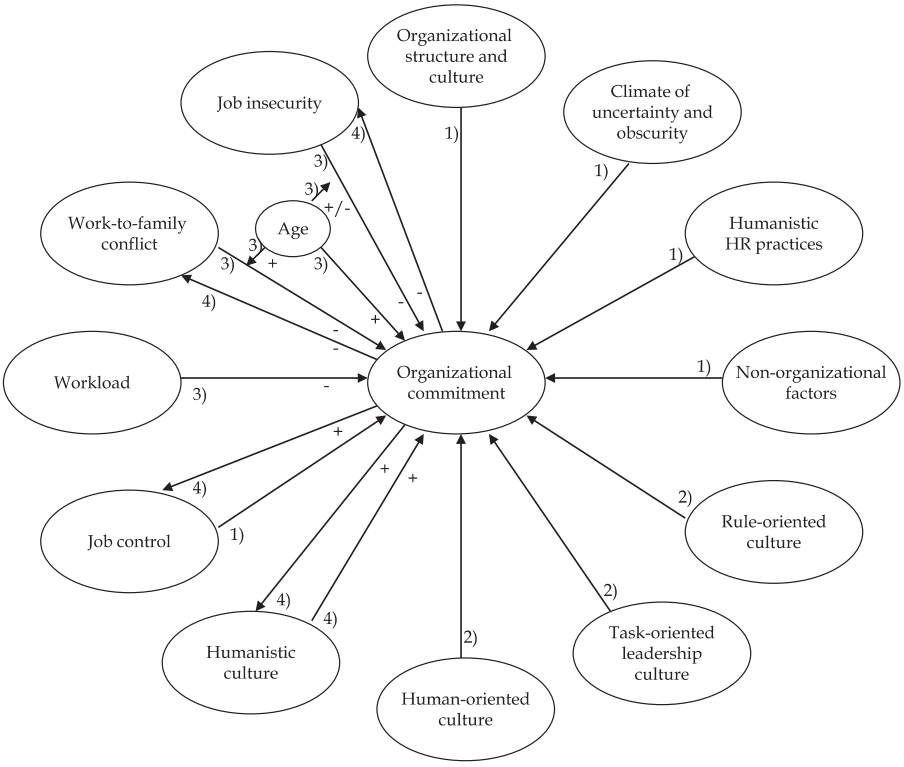
Non-organizational antecedents

The present study also revealed that some informants in the HCD located the reason for weak organizational commitment outside the organization. These findings were, in some respect, consistent with previous empirical studies which have shown that being temporarily employed can decrease organizational commitment (e.g., Delobbe & Vandenberghe, 2000; Felfe, Schmook, Schyns, & Six, 2008; cf., De Cuyper et al., 2008). The core-periphery hypothesis (see Cappelli & Neumark, 2004) could offer a theoretical explanation for this. Accordingly, "peripheral" employees (e.g., non-permanent staff) have poorer working conditions (e.g., less job security and job autonomy, fewer opportunities for training and development or other benefits) than "core" employees (e.g., permanent staff), which, in turn, has negative consequences (e.g., decreased organizational commitment) (see also Felfe et al., 2008). The informants also explained weak organizational commitment by reference to the Finnish national culture which has shifted – according to them – into an increasingly individualistic direction. This view may perhaps owe to the fact that we are living in a hectic and constantly changing environment, where the primacy of personal goals, needs and rights are becoming more and more valued (for a description of individualistic culture, see Triandis, 1995). However, earlier empirical studies have shown rather mixed results concerning the relationships between an individualistic culture and organizational commitment (see Wasti & Önder, 2009). In addition, weak organizational commitment was found to be the general trend nowadays in Europe and the Nordic countries. The results of the European NEXT study (Laine, 2005; Stordeur et al., 2003), however, showed that organizational commitment in the nursing profession was not particularly low. In fact,

the highest organizational commitment score was found in Finland. There is also research evidence showing that national differences in mean commitment levels are usually rather small (e.g., Hattrup, Mueller, & Aguirre, 2008; Vandenberghe, Stinglhamber, Bentein, & Delhaise, 2001). Finally, it was not found any research evidence to corroborate the view expressed by one informant that low organizational commitment in the HCD stems from impairment in the status of public health care in Finland.

Summary of the study findings

As seen from the study findings presented above, many job and organizational characteristics seemed to have either a positive or negative effect on employees' organizational commitment. Some of the relationships that emerged were, however, based on cross-sectional data, and thus reveal nothing about the causal relationships between the phenomena. In fact, according to the longitudinal study, organizational commitment turned out to be a stronger precursor of work characteristics than vice versa. A summary of the relationships between the examined phenomena found in this dissertation is provided below in Figure 10.



Note. 1) Relationship found in Study I, 2) Relationship found in Study II, 3) Relationship found in Study III, 4) Relationship found in Study IV.

FIGURE 10 Summary of the study findings

4.2 Methodological and conceptual considerations

There are several strengths and limitations that should be acknowledged when evaluating the findings of this dissertation. The strengths and limitations that related to the study design, concepts and their measurements are discussed next. In addition, some recommendations for the future study of organizational commitment are presented.

Study design

The main strength of this study was the use of a mixed method approach to investigate organizational commitment. First, the study took advantages of both quantitative and qualitative data. The qualitative data enabled exploration of the meanings associated with organizational commitment, a topic which has hitherto received only limited attention in organizational commitment research (cf., Singh & Vinnicombe, 2000; Randall et al., 1990). The interview study (Study I) revealed the meanings associated with commitment of employees who were approximately 50 years old and worked in the health care and IT sectors, whereas the previous qualitative studies (Singh & Vinnicombe, 2000; Randall et al., 1990) have focused on younger employees in a more homogeneous domain of business (i.e., a manufacturing plant, aerospace/high-tech organizations). In addition, the antecedents identified in the interview study not only supported the findings of my quantitative studies but also broadened the insight into the meaningful antecedents of organizational commitment. For instance, non-organizational factors (e.g., national culture, status of the business domain) have been rarely explored in relation to organizational commitment (see Wasti & Önder, 2009).

Moreover, the three quantitative studies executed as part of this dissertation approached the key question – investigating the organizational and job-related antecedents of organizational commitment – from different point of view: Study II first applied a relatively new statistical methodology – factor mixture model (FMM) analysis, which is well suited to a person-oriented approach – in order to find clear latent cultural classes among the respondents. The study then investigated how respondents' organizational commitment varied by these classes. Study III explored employees' age as a moderator, which has rarely been done in studies investigating the job demands – organizational commitment relationship (cf., Cheng & Chan, 2008; Claes & Van De Ven, 2008; Finegold et al., 2002; Gordon et al., 2007). The study produced useful information from both the practical and theoretical points of view by showing that scale-based variation prevailed in the moderator effects of age in the job demands – organizational commitment relationships. Finally, Study IV tested the predictive relationships between the work characteristics and organizational commitment by using two-year follow-up data, which has even less often been done in organizational commitment studies and which can be regarded as the main contribution of this study. The use of longitudinal data allowed me to ex-

amine the relationships between the phenomena more reliably, including taking into account the possibility of reverse causation, than has been possible in prior cross-sectional studies. Moreover, the two-wave design also enabled assessment of the stability of the phenomena.

A second strength of this study related to the data gathered from three culturally, structurally and functionally different organizations. The influence of organization (i.e., influence of context) emerged in the fact that the antecedents of organizational commitment differed, to some extent, by organization. Third, this study focused on Finnish employees, whose organizational commitment has rarely been explored (cf., Jokivuori, 2002; Laine, 2005; Parzefall, 2008; Tuomi et al., 2006). The study confirmed the findings of the previous Finnish studies by showing relatively high affective commitment among the respondents. The main difference between this research and the previous studies was related to the finding that organizational commitment may precede job characteristics. The testing of this reverse causality assumption has been neglected in earlier Finnish studies.

The present study also has some limitations which should be acknowledged when evaluating the findings. The main limitation was that the study was part of a larger research project (see p. 36), the main focus of which was not on organizational commitment. Thus, I was not able to explore the phenomenon as profoundly as I would have liked. This limitation emerged especially in the interview study, in which only one question addressed organizational commitment. This question was, furthermore, framed indirectly, i.e., it was asked what could be done to improve employees' organizational commitment instead of what factors might generally improve or impair it. On reflection, it is clear that a study focusing on organizational commitment, with several different questions directly on the topic, would have produced richer information on the phenomenon. Nevertheless, the analysis which was applied produced interesting results as it utilized the interview material in its entirety. In addition, it is possible that the antecedents that the interview study revealed were also related to work commitment constructs other than organizational commitment alone, as it was difficult for the informants to define organizational commitment and they tended instead to speak about job involvement, occupational and work group commitment. The previous research evidence has, however, indicated that similar factors can precede both organizational commitment and job involvement (see Cohen, 1992; Brown, 1996; Mathieu & Zajac, 1990; Meyer et al., 2002).

Furthermore, the situation in which the interviews were conducted might have affected the results, especially in the ICT company. For instance, the fact that a climate of uncertainty and obscurity emerged as an antecedent of organizational commitment was probably because the organization had gone through several structural and personnel changes during recent years, and at the moment of the interviews a new realignment process had just got under way. Thus, in commitment research, the specific context and situation (e.g., economic sector, organizational structure) must always be taken into consideration (see also Randall et al., 1990). A further limitation of the interview study was that the

interview was directed at persons who were mainly managers, HR professionals, safety and elected officers and who were older than the employees on average in their organizations. Meanings produced by both ordinary and younger employees were, thus, absent. It is likely that these groups would have offered different definitions of and antecedents for commitment than those produced by the present informants. With respect to the interview situation, some interviewers' were somewhat inexperienced in the task of interviewing and had limited knowledge about the interview themes – although the training was organized in advance – and therefore some relevant questions might have remained unasked.

The main limitation of Studies II and III was their cross-sectional nature, which made it impossible to draw reliable conclusions on causal relationships between the phenomena studied. In fact, the causal ordering of the variables was based on the theoretical reasoning of the perceived organizational support, psychological contract and organizational commitment theories. In Study IV, longitudinal data collected from the HCD was used to analyze the predictive relationships between work characteristics and organizational commitment. Nevertheless, it did not methodologically measure up to all the standards of causal analysis (see e.g., De Lange, Taris, Kompier, Houtman, & Bongers, 2003; Zapf et al., 1996). First, it did not tested whether the work characteristics and organizational commitment dimensions reciprocally influence each other (see e.g., De Lange, Taris, Kompier, Houtman, & Bongers, 2004). Second, it cannot be stated that the relationships between the phenomena found in this study were the result of the variables explored here, and thus the possibility cannot be ignored that some unmeasured third variables existed (see Dormann, 2001; Zapf et al., 1996) and (partially) explained the associations. In fact, Study IV should rather be seen as an attempt to examine the temporal relationships between organizational commitment and work characteristics.

Studies III-IV can also be criticized for the use of hierarchical regression analysis instead of structural equation modeling (henceforth SEM) (see Zapf et al., 1996). This decision was made because of the high number of observed variables included in the analyses, which might have resulted in unnecessarily complicated models that would be difficult to interpret. The third limitation, related to Study IV, was the fact that the data were gathered from a single organization and professional field (i.e., female-dominated HCD). According to De Jonge et al. (2001), this can be a disadvantage as well as an advantage: a disadvantage is that it might be difficult to obtain enough variance in the variables of interest that would enable hypotheses to be tested, whereas its advantage is the lack of variance in socio-economic status, which could preclude confounding effects. Moreover, the use of one organization naturally restricts the generalizability of the findings. Consequently, more research is needed to investigate the causal relationships between organizational commitment and work characteristics by utilizing SEM analysis in other business and occupational fields.

Additional consideration should also be given to the well-known limitations such as time-lags between the measurements, self-report data, possible

attrition and response rates in the samples, and generalizability. First, the follow-up period in Study IV was two years, which was probably too long, and thus inflated the prospective linkages. However, it was difficult to assess what the most appropriate time-lag would have been as there was a lack of empirical evidence and theoretical reasoning determining the ideal time-lag for finding temporal associations between the studied phenomena. Clearly, in future longitudinal studies on organizational commitment and its correlates different time-lags should be utilized. Second, the use of self-report data was another important limitation of this study. As such data are subject to common-method variance, for example, through the respondents' personalities, affective states, and response styles, this choice may have inflated the magnitude of the relationships between the studied phenomena (Kompier, 2005; see also Goffin & Gellatly, 2001). However, it was sought to utilize well-known and -validated measures in order to obtain useful and credible information (Kompier, 2005). Third, this study was only based on employees' perceptions and, therefore, it is, for instance, unclear whether there had been real changes in work characteristics or simply changes in employees' evaluations of them (i.e., work characteristics) during the research project (see e.g., De Lange et a., 2004). The use of objective information would have supported the research process and made this study more complete. Fourth, the response rate of the longitudinal sample was relatively high (65.7%) and the participants at the follow-up were representative of those in the cross-sectional sample –at least in relation to gender, age and education. However, the sample was female-dominated which limits the generalizability of the findings. In addition, the response rates of the cross-sectional studies were relatively low in the ICT company (47.7%) and in the HCD (46.0%), which sets limitations on the generalizability of these results, although the sample was relatively large and also reasonably representative with respect to the demographics of the respondents as a whole. Unfortunately, it was not possible to conduct a more detailed sample attrition analysis because nonrespondent-specific background variables were not available to me from the organizational records.

Concepts and their operationalization – recommendations for future research

On the basis of this study, the concepts of organizational culture and organizational commitment and their operationalization are worth discussing.

An issue that usually makes research on *organizational culture* difficult is the lack of a consensus on how organizational culture should be studied – qualitatively or quantitatively (e.g., Cameron & Quinn, 1999; Hofstede, 1998; Schein, 1985). As a solution, it has been suggested that the most appropriate research method depends on the element of the organizational culture to be examined (Hofstede, 1998). Accordingly, it has been stated that unconscious assumptions or shared, invisible values should be assessed through interactive qualitative methods, whereas characteristic patterns of behavioral norms and expectations (i.e., how employees should or should not act and behave), organizational values (what is highly valued and respected in the organization), and organiza-

tional practices (how the organization typically functions on a day-to-day basis) are more accessible through structural and non-standardized assessments (see e.g., Ashkanasy et al., 2000; Cooke & Szumal, 1993; Sackmann, 2001; Van den Berg & Wilderom 2004; Xenikou & Furnham, 1996).

In the present study, it was assumed that organizational culture would be manifested in perceived organizational practices (i.e., rituals and operational practices specific to the organization) and behavioral norms (i.e., norms and rules regulating individuals' behavior in the organization) and not just values or basic underlying assumptions (see Ashkanasy et al., 2000; Cooke & Lafferty, 1987; Hofstede et al., 1990; Van den Berg & Wilderom, 2004; Yiing & Ahmad, 2009). It was also expected that organizational practices and behavioral norms would have a more direct impact on work situations and employees' behavior, attitudes and performance than more global and abstract values or shared beliefs (see Balthazard, Cooke, & Potter, 2006; Cooke & Rousseau, 1988). Moreover, organizational culture was approached via a functionalistic paradigm, where the focus is not on organizational culture for its own sake, but rather on the specific role (or quality) that it has in relation to psychological states such as well-being or job attitudes (for functionalistic studies, see e.g., Cameron & Quinn, 1999; Cooke & Szumal, 1993; Hofstede et al., 1990; see also Lindell & Brandt, 2000). Functionalistic organizational culture analyses are often conducted via quantitative methods (see Cameron & Quinn, 1999; Cooke & Szumal, 1993; Hofstede, 2001), as was also the case in the present study. In the future, it would, however, be useful to study the effect of cultural strength or consensus on organizational commitment in more depth (see Lindell & Brandt, 2000; Schneider et al., 2002). In this study cultural consensus was manifested only in cultural classes, which consisted of respondents who, according to their cultural perceptions, were similar within classes and different across classes (see Muthen et al., 2006). Nevertheless, multi-level modeling (i.e., hierarchical linear modeling, HLM analysis) is recommended when studying cultural strength and combining organizational-level variables (i.e., culture) with individual-level variables (i.e., commitment) (see Becker et al., 2009).

As organizational culture was studied quantitatively in this dissertation, it raises the question whether one should speak about organizational climate instead of organizational culture. In the literature organizational culture and climate have been seen both as distinct (e.g., Schein, 1990), overlapping (e.g., Denison, 1996) and as interchangeable (e.g., Schneider, 2000) constructs (Glisson & James, 2002). Denison (1996) has, however, pointed out that making a distinction between organizational culture and organizational climate is, somewhat, unnecessary (see also De Witte & van Muijen, 1999). According to him, these two research traditions should be viewed as differences in interpretation rather than as differences in the phenomenon under study. He has also concluded that quantitative culture research has a strong resemblance to organizational climate research. A similar conclusion have also been reached by van den Berg and Wilderom (2004), who state that by defining organizational culture as shared perceptions of organizational practices, the concept resembles organizational

climate. In light of this, it seems that it would also have been possible to use the term of organizational climate in the present study.

In the measurement of organizational culture, a few problems were countered. First, the EFAs and CFAs showed a different scale structure for the OCP-50 survey than that found in the original Australian study. As a consequence my study was based on fewer items as well as scales than the Australian study (Ashkanasy et al., 2000). In addition, four important scales (Job performance, Environment, Development of individual and Planning), which were contained in the original OCP-50 survey, as well as in many other organizational culture inventories (e.g., Cameron & Quinn, 1999; Cooke & Szumal, 1993), did not emerge in my data. In fact, when the items of these scales were added into the EFA, the number of cross-loaded items increased markedly and the factor structure became more incoherent. Some country- and organization-specific issues might be the primary reasons for these differences. However, by using EFA and CFA, it was possible to construct a short but psychometrically sound scale for organizational culture, which also proved to be applicable across organizations. Nevertheless, more psychometric research on OCP-50 is definitely called for. For example, in the future, it is recommended that the organizational culture scale and the class structure related to are validated by using a multi-group method. As far as the cultural class solution is concerned, while the number of latent classes can be tested objectively, they are named more or less subjectively by the researcher. Thus, the cultural classes identified in this study could perhaps have been labeled in another way.

Organizational commitment was assessed in this dissertation through affective and normative commitment, thereby omitting the dimension of continuance commitment. The decision was made on the basis of previous studies where mixed results have been obtained concerning the factor structure of continuance commitment (e.g., Cheng & Stockdale, 2003; Dunham et al., 1994; Hackett et al., 1994; Jaros, 1997; Ko et al., 1997; McGee & Ford, 1987). It has been reported to have a two-dimensional structure, and also proposed that only the items describing high sacrifice should be included in the scale as they better reflect the side-bet view of commitment than the items describing lack of alternatives (e.g., Ko et al., 1997; McGee & Ford, 1987; Meyer et al., 2002; Powell & Meyer, 2004). Moreover, as continuance commitment has been reported to correlate rather weakly with other job attitudes as well as with work-related antecedents and outcomes (e.g., Cheng & Stockdale, 2003; Ko et al., 1997; Meyer et al. 2002) it was decided to omit this commitment dimension. In addition, as the present study was a part of a larger project the questionnaire included many other variables, which limited the space available for items on organizational commitment. Nevertheless, it would have been wise to include all three components of commitment in the questionnaire in order to test the factor structure of organizational commitment in a Finnish data set.

The results of the separate studies included in this dissertation showed relatively high correlations between the affective and normative commitment dimensions. The correlation coefficients ranged between .61 and .65, and were in line with some other commitment studies reporting moderate or high corre-

lations between the dimensions (e.g., Cheng & Stockdale, 2003; Ko et al., 1997; Meyer et al., 2002; Wasti & Can, 2008). The high inter-correlations have raised the question of the discriminant validity of the constructs (e.g., Bergman, 2006; Cheng & Stockdale, 2003; Ko et al., 1997). On the basis of their meta-analysis, Meyer and colleagues (2002) admitted that although affective and normative commitment show rather similar patterns of correlations with antecedents, outcomes and correlate variables, the magnitude of the correlations vary (see also Meyer & Parfyonova, 2010). The results of this study supported this by showing that despite rather similar antecedents, the associations between them and the commitment dimensions were more robust for affective than for normative commitment.

The present study also indicated that normative commitment was a more stable phenomenon across time than affective commitment. The proportion of the variance explained by the previous measurement was 50% and 36%, respectively. Thus, the study participants who reported to be normatively committed at the beginning of the study showed a similar trend at the subsequent measurement point two years later. One reason for this may be that compared to affective commitment, employees' normative commitment is usually less influenced by work-related factors. In fact, it has been stated that different familial and cultural norms shape an employee's normative commitment before actual entry into the organization (Meyer & Allen, 1991, 1997; Meyer & Herscovitch, 2001), which would thus mean that normative commitment is a rather stable phenomenon. The stability of normative commitment has remained underresearched in previous studies, which have concentrated mainly on affective commitment or general organizational commitment (e.g., Bowling, Beehr, & Lepisto, 2006; Cohen & Freund, 2005; Meyer et al., 1991, 2010; Neininger et al., 2010; Ng et al., 2010; Parker et al., 2001; cf., Bentein, Vandenberg, Vandenberghe, & Stinglhamber, 2005). In this respect, the present study extended current knowledge by providing the stability coefficients for both commitment dimensions.

The criticism presented above of the three dimensional conceptualization of organizational commitment (i.e., two-dimensional factor structure of continuance commitment, high inter-correlations between affective and normative commitment) has brought about a need to redefine the concept and its measures. Several authors have argued that the main issue that should be resolved is whether the behavioral elements are part of commitment or not (e.g., Becker et al., 2009; Jaros, 2009; Klein et al., 2009; Solinger, van Olffen, & Roe, 2008). It has been strongly argued that normative and continuance commitment are outcomes of organizational commitment, and represent employee attitude towards staying or leaving (i.e., being behavioral acts), whereas employee emotional attachment, affective commitment, describes the core essence of organizational commitment (e.g., Jaros, 2009; Klein et al., 2009; Solinger et al., 2008). These arguments are understandable in light of the items associated with these scales. In fact, most of the items in normative and continuance scales in Meyer and colleagues' (1993) measure include the words leaving or remaining, and

thus refer to turnover intentions. Moreover, affective commitment has proved to be the most reliable and validated dimension of organizational commitment, showing the strongest correlations with many variables (e.g., Allen & Meyer, 1996; Ko et al., 1997; Meyer et al., 2002).

It has been argued therefore that organizational commitment should be measured unidimensionally either via the affective commitment dimension (Meyer et al., 1993) or the organizational commitment questionnaire (Porter et al., 1974), as both measure employees' emotional attachment to the organization (Ko et al., 1997; Solinger et al., 2008). Klein and colleagues (2009) have supported this by stating that if the core essence of commitment is unidimensional, it should also be measured unidimensionally (see Becker et al., 2009). Meyer and Herscovitch (2001), on the other hand, have argued that organizational commitment should be measured multidimensionally despite the unidimensional definition of the concept. The reason for this is that the different mindsets accompanying the concept are the most important factors determining the individual's behavior (Meyer & Herscovitch, 2001; see also Becker et al., 2009). In addition, other studies have emphasized the importance of investigating different commitment dimensions simultaneously because of their possible multiplicative effects on outcome variables (e.g., Johnson, Groff, & Taing, 2009; Wasti, 2005). Meyer and Parfyonova (2010) have, for instance, stated that both employees and organizations may benefit more if employees experience high affective and normative commitment simultaneously than would be the case if employees experience high affective commitment alone. However, if it is decided to keep all three dimensions of organizational commitment in the original measure by Meyer and colleagues (1993), the possibilities to abridge the scale or rewrite the items should be investigated. The results of the present study concerning the factor structure of the organizational commitment scale, point in this direction to the use of an abridged scale.

Cohen's (2007) model (see Introduction, p. 16) offers one possible solution to the problems related to the conceptualization and measurement of organizational commitment. First, the problems associated with continuance commitment might be solved by regarding commitment as an instrumental exchange (Cohen, 2007). At present, continuance commitment focuses on the employee's perceptions of the cost of leaving the organization, however, regarded as instrumental commitment (or instrumental commitment propensity), it would emphasize the benefits of staying in the organization and the exchange relationship between the employee and the organization. This kind of shift in emphasis would avoid confusing the continuance commitment construct and its behavioral outcomes (e.g., turnover intentions), and it would be defined as having an unidimensional structure (Cohen, 2007). Second, as Cohen's model makes a distinction between commitment propensity developed before entry into the organization and organizational commitment developed after entry, it also makes a clear distinction between normative and affective commitment. Accordingly, Cohen (2007) argues that because an employee's normative commitment develops, due to socialization processes, before she/he enters the organization, it should be viewed as an attitude or propensity to become morally committed.

Thus, normative commitment is not a situation-specific form of commitment and should not be measured after entering the organization (Cohen, 2007).

Affective commitment, on the other hand, represents an employee's psychological attachment to the organization as a result off work experiences, and thus is the highest and deepest form of commitment (Cohen, 2007). Altogether, in order to evaluate the commitment of current employees, their instrumental and affective commitment should be measured (Cohen, 2007). According to Cohen (2007), the existing scales of affective and normative commitment in the measure by Meyer and colleagues (1993) are useful, with some modifications, for measuring affective commitment and normative commitment propensity, whereas the appropriate tools for measuring instrumental commitment should be developed.

The results of this study suggest that in future research, more attention should be paid to commitment as a concept and to its operationalization. As people do not necessarily have a clear picture of what organizational commitment means, their definitions of it may not correspond with scholarly definitions and the most utilized scale has many conceptual and structural problems. Moreover, it is possible that organizational commitment no longer has such a relevant role in employees' lives than may have been earlier. In fact, other targets of commitment, e.g., work, occupation, and work group, have perhaps replaced the organization as the most important target of commitment. On the basis of the results of this dissertation, it seems reasonable to consider commitment as a construct with multiple targets in order to sound out all aspects of it, particularly in large and scattered organizations (see also Carmeli et al., 2007; Cooper-Hakim & Viswesvaran, 2005; cf. Mowday et al., 1979). Studies focusing on the relationships between the different work commitment constructs, have supported this view by showing how the Protestant work ethic is followed by career commitment and furthermore by organizational commitment and job involvement (see e.g., Carmeli & Gefen, 2005; Morrow, 1993) or how job involvement mediates the associations between protestant work ethic and organizational, career or occupational commitment (see e.g., Cohen, 1999; Hackett et al., 2001; Randall & Cote, 1991). It has also been stated that when employees are committed to multiple targets that share goals in common with the organization, the organization as a whole can benefit even if the employees do not report particularly strong organizational commitment (Becker et al. 2009; Neininger et al., 2010). In the future, it would be interesting to examine, via the factor mixture model analysis, employees' commitment profiles. In particular, a study simultaneously exploring different commitment dimensions and targets, could contribute new information to the commitment literature.

In addition, the interview study gave some indications that employees' belonging to different age groups and generations may attribute different meanings to commitment. To be more precise, the interviewees, whose average age was approximately 50 years, emphasized the importance of responsibility and high work involvement as indicators of highly committed employees. However, these features do not necessarily characterize the opinions of highly committed

young employees. It is possible that they express their commitment differently, for instance, by being innovative, showing initiative and creativity, and being more business-/customer-oriented. Unfortunately, this assumption was not studied in this dissertation. There is, however, evidence that these new characteristics of committed employees are gradually replacing the so called traditional characteristics of commitment (e.g., self-sacrificing behavior, responsibility, personal involvement) (Singh & Vinnicombe, 2000). Altogether, more research is needed to clarify age- and generation-related interpretations and differences regarding commitment. From an organizational point of view, possible differences in employees' definitions of committed employees may be manifested in conflicts between young and older employees that organizations should be prepared to resolve.

With regard to the measurement of organizational commitment, I recommend that it might be useful to apply several measures of commitment or use methodological triangulation (i.e., quantitative and qualitative approaches) in the same study, or try to develop a new measure of commitment which better takes into account the multiple aspects of commitment. Cohen's (2007) model might be worth developing and testing in future organizational commitment studies. By modifying the existing multidimensional models and minimizing the problems associated with them, it might also be possible to maintain the multidimensional nature of commitment without oversimplifying the phenomenon. In addition, the model could be applied to measure commitment to different targets.

4.3 Practical implications and suggestions for future research

The results of my cross-sectional studies suggested that psychosocial job demands, i.e., job insecurity, workload and work-to-family conflict, may impair employees' organizational commitment. However, my longitudinal study is a good example of how the use of follow-up data can change this prevailing view of the predictive relationships between the phenomena. That is, organizational commitment can predict work characteristics – or at least their perception – and function as a resource itself. The finding is interesting as it shows that committed employees may experience job demands (i.e., a certain amount of job insecurity, work-to-family conflict), as less harmful. On the basis of this study, it seems important to support employees' normative commitment and, in particular to foster their affective commitment. Affective commitment has proved to have the strongest associations with performance and behavioral outcomes and to benefit both organizations and employees (see e.g., Becker et al., 2009). For example, regardless of many negative features at work, committed employees may work effectively, take part in development activities, adapt to changes and have less turnover intentions, absenteeism, negative affect and various indices of stress (see e.g., Blau et al., 2008; Cooper-Hakim & Viswesvaran, 2005; Meyer et al., 2002; Thoresen et al., 2003).

As a practical suggestion for organizations and managers, this study indicated that affective commitment can be positively affected by emphasizing a humanistic organizational culture and humanistic HR practices. There might be many ways to do this. As organizational supportiveness can be viewed as a manifestation of a humanistic organizational culture, it may be useful to foster the features associated with it. According to the POS theory (Eisenberger et al., 1986) and numerous empirical studies (e.g., Baranik et al., 2010; Dawley et al., 2008; Lee & Peccei, 2007; Panaccio & Vandenberghe, 2009; Rhoades et al., 2001), favorable and fair treatment, supervisor support, rewards and favorable job conditions can effectively improve employees' commitment. In practice, this could, for instance, mean that organizations create employee-centered opportunities for professional development, work schedules, recognitions for accomplishments, idiosyncratic deals, etc. (e.g., Ng et al., 2006; Ng & Feldman, 2010a; Panaccio & Vandenberghe, 2009). Furthermore, a supportive or humanistic organizational culture can also contribute to many organizational strategies and policies, which can help to improve employees' commitment. In addition, according to this study and many other studies (e.g., Bambacas & Patrickson, 2008; Kidd & Smewing, 2001; Meierhans et al., 2008), managers play an important role in fostering employees' commitment. In order to improve subordinates' commitment, they should concentrate on giving adequate information about the organizational targets and visions and behave as role models.

My study also indicated that employees' age is an antecedent and a moderator of organizational commitment. The findings imply that organizations should be able to increase younger employees' organizational commitment. This could be done, for example, by supporting their career development and career progression, offering possibilities for training, skill development and work-life balance, as these features of work have proved to be important especially for younger employees (see e.g., Finegold et al., 2002; Hyvönen, Feldt, Salmela-Aro, Kinnunen, & Mäkikangas, 2009; Kooij et al., 2009). Furthermore, on the basis of my study, it seems that organizations should pay attention to younger employees' ability to handle work-to-family conflict as well as to ageing and aging employees' personal resources to cope with job insecurity.

As many negative job demands (e.g., job insecurity, work-to-family conflict) are evident in today's working life, organizations should find out how to alleviate their negative consequences on commitment by taking into account employees' age. One possible solution to this could be the rewriting of the psychological contract to take better into consideration the lifespan perspectives of individuals (see e.g., Bal et al., 2008; Claes & Van De Ven, 2008). Consequently, organizations could try to prevent the contract breach by tailoring human resource practices (e.g., part-time work, other form of flexible scheduling, skills development, training opportunities, childcare benefits, idiosyncratic deals) (see Peterson & Spiker, 2005) to employees' age-related needs (see Bal et al., 2008). Second, efforts could be made to replace employment security, which has usually formed the basis of the psychological contract for employees, with efforts to increase the employability of the workforce by, e.g., career development and

training as organizational reciprocity for employees' commitment to work performance (see e.g., Alasoini, 2006; Anderson & Schalk, 1998; Cavanaugh & Noe, 1999; Claes & Van De Ven, 2008; De Cuyper et al., 2009; Millward & Brewerton, 2000). This kind of psychological contract has recently been called the new psychological contract, and is based on a shared view of both contracting parties that there can no longer be a guarantee of long-term employment and that mutual obligations can, for instance, be shown by fostering employees' employability – their possibilities to obtain a new job – and commitment to work performance (see e.g., Cavanaugh & Noe, 1999; Millward & Brewerton, 2000; Ruotsalainen & Kinnunen, 2009). More research, however, is needed on employees' psychological contracts and the age-related differences in them.

YHTEENVETO

Ovatko organisaation ja työn piirteet yhteydessä organisaatioon sitoutumiseen? Monimenetelmällinen tutkimus ilmöiden välisistä yhteyksistä.

Väitöskirjani käsittelee organisaatioon sitoutumista ja siihen yhteydessä olevia tekijöitä. Sen päätavoitteena oli selvittää, mitkä organisaation ja työn piirteet ovat yhteydessä siihen, että työntekijä sitoutuu organisaatioonsa. Väitöskirjani koostuu neljästä itsenäisestä osatutkimuksesta.

Tutkimus pohjautuu Emil Aaltosen säätiön ja Työsuojelurahaston rahoittamaan "Organisaatiokulttuuri ja henkilöstön hyvinvointi" -tutkimusprojektiin hyödyntäen sen yhteydessä kerättyä kolmea tutkimusaineistoa. Ensimmäinen osatutkimukseni perustui julkisesta terveydenhuolto-organisaatiosta (n = 16) ja it-telekonsernista (n = 15) vuosina 2003 ja 2004 kerättyyn haastatteluaineistoon. Toisessa ja kolmannessa osatutkimuksessani hyödynsin terveydenhuolto-organisaatiosta, it-telekonsernista ja kartonkitehtaasta vuonna 2003 kerättyä kvantitatiivista poikkileikkausaineistoa (n = 1252). Neljäs osatutkimukseni perustui puolestaan vuosina 2003 ja 2005 terveydenhuolto-organisaatiosta kerättyyn kvantitatiiviseen seuranta-aineistoon (n = 409). Organisaatioon sitoutumista tarkasteltiin kvantitatiivisissa osatutkimuksissani affektiivisen ja normatiivisen sitoutumisen kautta. Affektiivisella sitoutumisella tarkoitettiin tällöin työntekijän tunneperäistä kiinnittymistä ja samaistumista organisaatioon, kun taas normatiivinen sitoutuminen määriteltiin työntekijän velvollisuudentunteeksi pysyä organisaation palveluksessa.

Ensimmäisen osatutkimukseni tavoitteena oli tarkastella organisaatioon sitoutumiselle annettuja merkityksiä sekä selvittää, millaisilla tekijöillä haastateltavat kokivat olevan merkitystä työntekijän organisaatioon sitoutumiselle. Haastateltavien sitoutumiselle antamista merkityksistä nousi esille kolme teemaa: Ensinnäkin organisaatioon sitoutumista pidettiin käsitteenä epämääräisenä, vaikeaselkoisena ja vaikeasti erotettavana muusta työhön kohdistuvasta sitoutumisesta. Toiseksi organisaatioon sitoutuminen määriteltiin työntekijän vastuuntunnoksi, joka ilmeni muun muassa tunnollisuutena, epäitsekkyytenä, joustavuutena sekä ylimääräisinä ponnisteluina työssä. Kolmanneksi sitoutuminen käsitteellistettiin ikään liittyväksi työsitoutuneisuudeksi. Haastateltavien puheesta löytyi seuraavat neljä organisaatioon sitoutumista ennustavaa teemaa: 1) organisaation rakenteelliset ja kulttuuriset tekijät (mm. organisaation koko, jakautuminen eri toimipisteisiin, yhtenäisen organisaatiokulttuurin puuttuminen), 2) organisaatioissa vallitseva epäselvyyksien ja epävarmuuden ilmapiiri (mm. epäselvät tavoitteet ja strategiat, muutokset, henkilöstövähennykset), 3) ihmisläheiset HR-toiminnot (mm. humanistinen johtaminen, henkilöstön kehittäminen, viestintä) sekä ns. 4) ei-organisatoriset tekijät (mm. alan arvostus, arvomaailman muutos, määräaikaiset työtehtävät).

Toisen osatutkimukseni painopiste oli selvittää, kuinka organisaatiokulttuurin eri ominaisuudet ovat yhteydessä organisaatioon sitoutumiseen. Tutkimukseen osallistuneiden keskuudesta löytyi kolme vastaajaryhmää, joissa

organisaatiokulttuuria arvioitiin eri tavoin: Kulttuurin 1) humanistiseksi ja 2) sääntökeskeiseksi arvioivat vastaajat sekä kulttuurin 3) tehtäväkeskeisen johtamisen avulla määrittelevät vastaajat. Organisaatiot erosivat toisistaan sen suhteen, kuinka suuri osuus kutakin ryhmää organisaatiossa esiintyi, vaikkakin kulttuurin tehtäväkeskeisen johtamisen avulla määritteleviä vastaajia oli jokaisessa kolmessa organisaatiossa eniten. Lisäksi tutkimuksessa havaittiin, että kulttuurin sääntökeskeiseksi kokeneet vastaajat olivat vähemmän sekä affektiivisesti että normatiivisesti sitoutuneita organisaatioonsa kuin kulttuurin humanistiseksi tai tehtäväkeskeisen johtamisen avulla arvioineet vastaajat. Yleisesti organisaatioon oltiin enemmän affektiivisesti kuin normatiivisesti sitoutuneita.

Kolmannen osatutkimukseni pääasiallisena tarkoituksena oli selvittää, onko ikä muuntava tekijä (moderaattori) työn piirteiden (aikapaineet työssä, työn epävarmuus, työ–perhe-ristiriita) ja organisaatioon sitoutumisen (affektiivinen, normatiivinen sitoutuminen) yhteyden välillä. Tuloksista ilmeni, että ikä muunsi työn epävarmuuden ja sitoutumisen sekä työ–perhe-ristiriidan ja sitoutumisen välisiä yhteyksiä terveydenhuolto-organisaatiossa ja kartonkitehtaassa. Terveydenhuolto-organisaatiossa työn epävarmuuden lisääntyminen näkyi vanhempien työntekijöiden nuorempia työntekijöitä voimakkaampana affektiivisen ja normatiivisen sitoutumisen laskuna. Tehtaassa puolestaan nuorempien työntekijöiden normatiivinen sitoutuminen laski jyrkemmin kuin vanhempien kollegoiden tilanteessa, jossa raportoitiin paljon työn epävarmuutta. Lisäksi työ–perhe-ristiriitojen ollessa yleisiä vanhemmat työntekijät terveydenhuolto-organisaatiossa kokivat vahvempaa affektiivista ja normatiivista sitoutumista organisaatioonsa kuin nuoremmat työntekijät. Lisäksi havaittiin, että vanhemmat vastaajat olivat kaiken kaikkiaan nuorempia sitoutuneempia organisaatioonsa.

Neljännen osatutkimukseni tavoitteena oli selvittää neljän työhön liittyvän piirteen (työn epävarmuus, työ–perhe-ristiriita, vaikutusmahdollisuudet työssä, humanistinen organisaatiokulttuuri) ja organisaatioon sitoutumisen (affektiivinen, normatiivinen sitoutuminen) välisiä ajallisia yhteyksiä terveydenhuolto-organisaatiossa. Seurantatutkimuksen tulokset osoittivat, että organisaatioon sitoutuminen itse asiassa ennusti kyseisiä työhön liittyviä piirteitä eikä päinvastoin. Toisin sanoen mitä vahvemmin affektiivisesti ja normatiivisesti sitoutuneita vastaajat olivat organisaatioonsa vuonna 2003, sitä 1) vähemmän he kokivat työn epävarmuutta ja työ–perhe-ristiriitoja, 2) sitä paremmaksi he arvioivat vaikutusmahdollisuutensa työssä ja 3) sitä humanistisempana he pitivät organisaationsa kulttuuria vuonna 2005. Lisäksi ilmeni, että työhön liittyvistä piirteistä ainoastaan humanistinen organisaatiokulttuuri ennusti myöhempää sitoutumista; mitä humanistisempana vastaajat pitivät organisaatiokulttuuria vuonna 2003, sitä vahvemmin he olivat affektiivisesti ja normatiivisesti sitoutuneita organisaatioonsa vuonna 2005.

Väitöstutkimukseni osoitti, että organisaatioon sitoutuminen ei ole käsitteenä yksiselitteinen ja että se voidaan työpaikoilla helposti sekoittaa muuhun työhön liittyvään sitoutumiseen, kuten esimerkiksi ammattiin ja työtehtävään sitoutumiseen. Tulos viittaa siihen, että organisaatioiden tulisi vahvistaa erityisesti edellä mainittuja sitoutumisen kohteita pyrkiessään lujittamaan työnteki-

jöidensä sitoutumista organisaatioon. Lisäksi organisaatioon sitoutumista tutkittaessa tulisi huomioida myös muu työhön kohdistuva sitoutuminen. Tutkimukseni osoitti yhtäältä, että organisaatioon sitoutuminen voidaan nähdä erityisesti vanhemmille työntekijöille ominaisena työn keskeisenä merkityksenä elämässä sekä vahvana vastuuntuntona. Jatkossa tulisi kuitenkin tutkia tarkemmin eri ikäisten työntekijöiden sitoutumiselle antamia merkityksiä, koska tältä osin tulokseni pohjautuivat ikääntyvien haastateltavien (≈ 50 vuotta) näkemyksiin.

Tutkimuksestani ilmeni myös iän keskeinen merkitys sekä sitoutumisen ennustajana että työn piirteiden ja organisaatioon sitoutumisen välisiä yhteyksiä muuntavana tekijänä. Käytännön tasolla tulos voi tarkoittaa muun muassa ikäspesifien keinojen käyttöä, kun halutaan lisätä erityisesti nuorten työntekijöiden organisaatioon sitoutumista sekä vähentää työn vaatimusten haitallisia seurauksia organisaatioon sitoutumiselle. Tulos voi myös ennakoida tarvetta tutkia tarkemmin eri ikäisten työntekijöiden psykologisen sopimuksen sisältöjä. Tutkimustulokseni osoittivat lisäksi, että työntekijöiden vahva organisaatioon sitoutuminen ennusti heidän myönteisiä arvioitaan työn piirteistä kaksi vuotta myöhemmin. Organisaatioon sitoutuminen voi siten tutkimukseni perusteella toimia myös keskeisenä työn voimavarana, joka saa aikaan voimavarojen kehiä. Tämä kyseenalaistaa perinteisen näkemyksen työn piirteistä organisaatioon sitoutumisen ennustajina ja kannustaa tekemään aiheesta lisää pitkittäistutkimuksia. Tutkimustulosteni perusteella voidaan myös esittää, että organisaatioiden tulisi kiinnittää huomioita erityisesti organisaatiokulttuurin humanistisuuteen sekä humanistiseen henkilöstöjohtamiseen pyrkiessään vahvistamaan työntekijöidensä sitoutumista ja sitoutumisen monia organisatorisia ja yksilöön liittyviä myönteisiä seurauksia.

REFERENCES

Abraham, R. (2000). The role of job control as a moderator of emotional dissonance and emotional intelligence-outcome relationships. *The Journal of Psychology, 134,* 169-184.

Addae, H. M., & Wang, X. (2006). Stress at work: Linear and curvilinear effects of psychological-, job-, and organization-related factors: An exploratory study of Trinidad and Tobago. *International Journal of Stress Management, 13,* 476-493.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Newbury Park, CA: Sage.

Alasoini, T. (2006). Työnteon mielekkyys uhattuna? Kohti uutta psykologista sopimusta? [Is the meaningfulness of work threatened? Towards a new psychological contract?]. *Työelämän tutkimus, 4,* 122-136.

Albrecht, S., & Travaglione, A. (2003). Trust in public-sector senior management. *International Journal of Human Resource Management, 14*, 76-92.

Allen T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5,* 278-308.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63,* 1-18.

Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior, 49,* 252-276.

Anderson, J. C., Gerbing, D. W., & Hunter, J. E. (1987). On the assessment of unidimensional measurement: Internal and external consistency, and overall consistency criteria. *Journal of Marketing Research, 24*, 432-437.

Anderson, N., & Schalk, R. (1998). The psychological contract in retrospect and prospect. *Journal of Organizational Behavior, 19,* 637-647.

Anderson, N., & Thomas, H. D. C. (1996). Work group socialization. In M. West (Ed.), *Handbook of Work Group Psychology* (pp. 423-450). Chichester: John Wiley & Sons.

Aselage, J., & Eisenberger, R. (2003). Perceived organization support and psychological contracts: a theoretical integration. *Journal of Organizational Behavior, 24,* 491-509.

Ashkanasy, N. M., Broadfoot, L. E., & Falkus, S. (2000). Questionnaire measures of organizational culture. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 131-146). Thousand Oaks: Sage

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*, 74-94.

Bakker, A. B., Demerouti, E., de Boer, E., & Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior, 62,* 341-356.

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology, 10,* 170-180.

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99,* 274-284.

Bakker, A. B., van Veldhoven, M., & Xanthopoulou, D. (2010). Beyond the Demand-Control Model. Thriving on high job demands and resources. *Journal of Personnel Psychology, 9,* 3-16.

Bal, P. M., De Lange, A. H., Jansen, P. G. W., & Van Der Velde, M. E. G. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behavior, 72*, 143-158.

Bal, P. M., Jansen, P. G. W., van der Velde, M. E. G., de Lange, A. H., & Rousseau, D. M. (2010). The role of future time perspective in psychological contracts: A study among older workers. *Journal of Vocational Behavior, 76,* 474-486.

Baltes, P. B. (1997). On the incomplete architecture of human ontogeny. Selection, optimization, and compensation as foundation of developmental theory. *American Psychologist, 52,* 366-380.

Baltes, P. B., Staudinger, U. M., & Lindenberger, U. (1999). Lifespan psychology: Theory and application to intellectual functioning. *Annual Review of Psychology, 50,* 471-507.

Balthazard, P. A., Cooke, R. A., & Potter, R. E. (2006). Dysfunctional culture, dysfunctional organization. Capturing the behavioral norms that form organizational culture and drive performance. *Journal of Managerial Psychology, 21*, 709-732.

Bambacas, M., & Patrickson, M. (2008). Interpersonal communication skills that enhance organizational commitment. *Journal of Communication Management, 12,* 51-72.

Baranik, L. E., Roling, E. A., & Eby, L. T. (2010). Why does mentoring work? The role of perceived organizational support. *Journal of Vocational Behavior, 76,* 366-373.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology, 66,* 32-40.

Becker, T. E., Klein, H. J., & Meyer, J. P. (2009). Commitment in organizations: Accumulated wisdom and new directions. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 419-452). New York: Routledge.

Bentein, K., Vandenberg, R., Vandenberghe, C., & Stinglhamber, F. (2005). The role of change in the relationship between commitment and turnover: A latent growth modeling approach. *Journal of Applied Psychology, 90,* 468-482.

Bergman, M. E. (2006). The relationship between affective and normative commitment: review and research agenda. *Journal of Organizational Behavior, 27,* 645-663.

Bergman, L. R., & Magnusson, D. (1998). Individual development and health: A person-oriented perspective. *Reports from the Department of Psychology*, No. 852. Stockholm University.

Bergman, L. R., Magnusson, D., & El Khouri, B. M. (2003). *Studying individual development in an interindividual context. A person-oriented approach*. London: Lawrence Erlbaum Associates.

Berson, Y., Oreg, S., & Dvir, T. (2008). CEO values, organizational culture and firm outcomes. *Journal of Organizational Behavior, 29*, 615-633.

Beyer, J. M., Hannah, D. R., & Milton, L. P. (2000). Ties that bind. Culture and attachments in organizations. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 323-338). Thousand Oaks: Sage.

Billeter-Koponen, S., & Fredén, L. (2005). Long-term stress, burnout and patient-nurse relations: Qualitative interview study about nurses' experiences. *Scandinavian Journal of Caring Sciences, 19*, 20-27.

Bishop, J. W., Scott, K. D., & Burroughs, S. M. (2000). Support, commitment, and employee outcomes in a team environment. *Journal of Management, 26,* 1113-1132.

Blau, P. M. (1964). *Exchange and power in social life.* New York: John Wiley.

Blau, G., Andersson, L., Davis, K., Daymont, T., Hochner, A., Koziara, K., Portwood, J., & Holladay, B. (2008). The relation between employee organizational and professional development activities. *Journal of Vocational Behavior, 72,* 123-142.

Bowling, N. A., Beehr, T. A., & Lepisto, L. R. (2006). Beyond job satisfaction: A five-year prospective analysis of the dispositional approach to work attitudes. *Journal of Vocational Behavior, 69,* 315-330.

Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior, 69,* 4-18.

Broadfoot, L., & Ashkanasy, N. (1994). *Survey measures of organizational culture.* Paper presented at the XXIIIth Meeting of Australian Social Psychologists, Cairns, Queensland, Australia.

Brockner, J., Spreitzer, G., Mishra, A., Hochwarter, W., Pepper, L., & Weinberg, J. (2004). Perceived control as an antidote to the negative effects of layoffs on survivors' organizational commitment and job performance. *Administrative Science Quarterly, 49*, 76-100.

Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behavior, 49,* 230-251.

Burke, R. J., & Cooper, C. L. (2006). The new world of work and organizations: Implications for human resource management. *Human Resource Management Review, 16,* 83-85.

Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior, 67,* 169-198.

Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. Reading, MA: Addison-Wesley.

Caplan, R. D. (1985). Psychosocial stress at work. *Management and Labour Studies, 10,* 63-76.

Caplan, R. D., Cobb, S., French, J. R. P. Jr., van Harrison, R. V., & Pinneau, S. R. (1980). *Job demands and worker health: Main effects and occupational differences.* Ann Arbor, Michigan: Survey Resarch Center, Institute of Social Research, University of Michigan.

Cappelli, P., & Neumark, D. (2004). External churning and internal flexibility: Evidence on the functional flexibility and core-periphery hypotheses. *Industrial Relations, 43*, 148-182.

Carmeli, A., Elizur, D., & Yaniv, E. (2007). The theory of work commitment: a facet analysis. *Personnel Review, 36*, 638-649.

Carmeli, A., & Gefen, D. (2005). The relationship between work commitment models and employee withdrawal intentions. *Journal of Managerial Psychology, 20,* 63-86.

Carstensen, L. L., Fung, H. H., & Charles, S. T. (2003). Socioemotional selectivity theory and the regulation of emotion in the second half of life. *Motivation and Emotion, 27*, 103-123.

Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously. A theory of socioemotional selectivity. *American Psychologist, 54*, 165-181.

Casper, W. J., Buffardi, L. C., Erdwins, C. J., & Martin, J. A. (2002). Work-family conflict, perceived organizational support, and organizational commitment among employed mothers. *Journal of Occupational Health Psychology, 7*, 99-108.

Cavanaugh, M. A., & Noe, R. A. (1999). Antecedents and consequences of relational components of the new psychological contract. *Journal of Organizational Behavior, 20,* 323-340.

Charles, S. T., Reynolds, C. A., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology, 80*, 136-151.

Cheng, G. H.-L., & Chan, D. K.-S. (2008). Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology: An International Review, 57,* 272-303.

Cheng, Y., & Stockdale, M. S. (2003). The validity of the three-component model of organizational commitment in a Chinese context. *Journal of Vocational Behavior, 62,* 465-489.

Chiok Foong Loke, J. (2001). Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Journal of Nursing Management, 9,* 191-204.

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology, 64,* 89-136.

Claes, R., & Van De Ven, B. (2008). Determinants of older and younger workers' job satisfaction and organizational commitment in the contrasting labour markets of Belgium and Sweden. *Ageing & Society, 28,* 1093-1112.

Cohen, A. (1992). Antecedents of organizational commitment across occupational groups: A meta-analysis. *Journal of Organizational Behavior, 13,* 539-558.

Cohen, A. (1996). On the discriminant validity of the Meyer and Allen mesure of organizational commitment: How does it fit with the work commitment construct? *Educational and Psychological Measurement, 56,* 494-503.

Cohen, A. (1998). An examination of the relationship between work commitment and work outcomes among hospital nurses. *Scandinavian Journal of Management, 14,* 1-17.

Cohen, A. (1999). Relationships among five forms of commitment: an empirical assessment. *Journal of Organizational Behavior, 20,* 285-308.

Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human Resource Management Review, 17,* 336-354.

Cohen, A., & Freund, A. (2005). A longitudinal analysis of the relationship between multiple commitments and withdrawal cognitions. *Scandinavian Journal of Management, 21,* 329-351.

Conway, E. (2004). Relating career stage to attitudes towards HR practices and commitment: Evidence of interaction effects? *European Journal of Work and Organizational Psychology, 13,* 417-446.

Conway, N., & Briner, R. B. (2005). *Understanding psychological contracts at work. A critical evaluation of theory and research.* Oxford: Oxford University Press.

Cooke, R. A., & Lafferty, J. C. (1987). *Organizational culture inventory*. Plymounth, MI: Human Synergistics.

Cooke, R. A., & Rousseau, D. M. (1988). Behavioural norms and expectations: A quantitative approach to the assessment of organizational culture. *Group & Organization Studies, 13,* 245-273.

Cooke, R. A., & Szumal, J. L. (1993). Measuring normative beliefs and shared behavioral expectations in organizations: The reliability and validity of the organizational culture inventory. *Psychological Reports, 72*, 1299-1330.

Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: Testing an integrative framework. *Psychological Bulletin, 131,* 241-259.

Coyle-Shapiro, J., & Kessler, I. (2000). Consequences of the psychological contract for the employment relationship: A large scale survey. *Journal of Management Studies, 37,* 903-930.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31,* 874-900.

Dawley, D. D., Andrews, M. C., & Bucklew, N. S. (2008). Mentoring, supervisor support, and perceived organizational support: what matters most? *Leadership & Organization Development Journal, 29,* 235-247.

Deal, T. E., & Kennedy, A. A. (2000). *Corporate cultures: The rites and rituals of corporate life.* Cambridge, MA: Perseus Publishing.

De Clercq, D., & Rius, I. B. (2007). Organizational commitment in Mexican small and medium-sized firms: The role of work status, organizational climate, and entrepreneurial orientation. *Journal of Small Business Management, 45,* 467-490.

DeCotiis, T. A., & Summers, T. P. (1987). A path analysis of a model of the antecedents and consequences of organizational commitment. *Human Relations, 40,* 445-470.

De Cuyper, N., de Jong, J., De Witte, H., Isaksson, K., Rigotti, T., & Schalk, R. (2008). Literature review of theory and research on the psychological impact of temporary employment: Towards a conceptual model. *International Journal of Management Reviews, 10,* 25-51.

De Cuyper, N., & De Witte, H. (2006a). Autonomy and workload among temporary workers: Their effects on job satisfaction, organizational commitment, life satisfaction, and self-rated performance. *International Journal of Stress Management, 13,* 441-459.

De Cuyper, N., & De Witte, H. (2006b). The impact of job insecurity and contract type on attitudes, well-being and behavioural reports: A psychological contract perspective. *Journal of Occupational and Organizational Psychology, 79,* 395-409.

De Cuyper, N., & De Witte, H. (2007). Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behaviour. *Work & Stress, 21,* 65-84.

De Cuyper, N., Notelaers, G., & De Witte, H. (2009). Job insecurity and employability in fixed-term contractors, agency workers, and permanent workers: Associations with job satisfaction and affective organizational commitment. *Journal of Occupational Health Psychology, 14,* 193-205.

De Jonge, J., Dormann, C., Janssen, P. P. M., Dollard, M. F., Landeweerd, J. A., & Nijhuis, F. J. N. (2001). Testing reciprocal relationship between job characteristics and psychosocial well-being: A cross-lagged structural equation model. *Journal of Occupational and Organizational Psychology, 74,* 29-46.

De Lange, A. H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining longitudinal relations among job resources and work engagement for stayers versus movers. *Work & Stress, 22*, 201-223.

De Lange, A. H., Taris, T. W., Jansen, P., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2010). On the relationships among work characteristics and learning-related behavior: Does age matter? *Journal of Organizational Behavior, 31,* 925-950.

De Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2003). "The very best of the millenium": Longitudinal research and the

demand-control-(support) model. *Journal of Occupational Health Psychology, 8,* 282-305.

De Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtman, I. L. D., & Bongers, P. M. (2004). The relationships between work characteristics and mental health: Examining normal, reversed and reciprocial relationships in a 4-wawe study. *Work & Stress, 18,* 149-166.

Delobbe, N., & Vandenberghe, C. (2000). A four-dimensional model of organizational commitment among Belgian Employees. *European Journal of Psychological Assessment, 16,* 125-138.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands-Resources model of burnout. *Journal of Applied Psychology, 86,* 499-512.

Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review, 21*, 619-654.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. Denzin, & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1-17). Thousand Oaks: Sage.

Dess, G. G., & Shaw, J. D. (2001). Voluntary turnover, social capital, and organizational performance. *Academy of Management Review, 26,* 446-456.

De Vos, A., Buyens, D., & Schalk, R. (2003). Psychological contract development during organizational socialization: adaptation to reality and the role of reciprocity. *Journal of Organizational Behavior, 24,* 537-559.

De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology, 8,* 155-177.

De Witte, H., & Näswall, K. (2003). 'Objective' vs 'subjective' job insecurity: Consequences of temporary work for job satisfaction and organizational commitment in four European countries. *Economic and Industrial Democracy, 24,* 149-188.

De Witte K., & van Muijen, J. J. (1999). Organizational culture: Critical questions for researchers and practioners. *European Journal of Work and Organizational Psychology, 8,* 583-595.

Dey, I. (1993). *Qualitative data analysis. A user-friendly guide for social scientists*. London: Routledge.

Dormann, C. (2001). Modeling unmeasured third variables in longitudinal studies. *Structural Equation Modeling, 8,* 575-598.

Droege, S. B., & Hoobler, J. M. (2003). Employee turnover and tacit knowledge diffusion: A network perspective. *Journal of Managerial Issues, XV*, 50-64.

Dunham, R. B., Grube, J. A., & Castaneda, M. B. (1994). Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology, 79,* 370-380.

Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in OI/OB: Content analysis and review of the literature (1980-2002*). Journal of Vocational Behavior, 66,* 124-197.

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology, 75,* 51-59.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71,* 500-507.

Employment in Europe 2007. (2007). Belgium: European Commission.

Falkus, S. A. (1998). *The Organizational Profile: An assessment of a New Organizational Culture Measure*. Master thesis. University of Queensland, Australia.

Feather, N. T., & Rauter, K. A. (2004). Organizational citizenship behaviours in relation to job status, job insecurity, organizational commitment and identification, job satisfaction and work values. *Journal of Occupational and Organizational Psychology, 77,* 81-94.

Felfe, J., Schmook, R., Schyns, B., & Six, B. (2008). Does the form of employment make a difference? – Commitment of traditional, temporary, and self-employed workers. *Journal of Vocational Behavior, 72,* 81-94.

Finegan, J. E. (2000). The impact of person and organizational values on organizational commitment. *Journal of Occupational and Organizational Psychology, 73,* 149-169.

Finegold, D., Mohrman, S., & Spreitzer, G. M. (2002). Age effects on the predictors of technical workers' commitment and willingness to turnover. *Journal of Organizational Behavior, 23,* 655-674.

Flinkman, M., Laine, M., Leino-Kilpi, H., Hasselhorn, H.-M., & Salanterä, S. (2008). Explaining young registered Finnish nurses' intention to leave the profession: A questionnaire survey. *International Journal of Nursing Studies, 45,* 727-739.

Freund, A. M., & Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: Correlation with subbjective indicators of successful aging. *Psychology and Aging, 13,* 531-543.

Geurts, S. A. E., Taris, T. W., Kompier, M. A. J., Dikkers, J. S. E., Van Hoof, M. L. M., & Kinnunen, U. M. (2005). Work-home interaction from a work psychological perspective: Development and validation of a new questionnaire, the SWING. *Work & Stress, 19,* 319-339.

Glisson, C. & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior, 23,* 767-794.

Goffin, R. D., & Gellatly, I. R. (2001). A multi-rater assessment of organizational commitment: are self-reported measures biaded? *Journal of Organizational Behavior, 22,* 437-451.

Gordon, J. R., Whelan-Berry, K. S., & Hamilton, E. A. (2007). The relationship among work-family conflict and enhancement, organizational work-family culture, and work outcomes for older working woman. *Journal of Occupational Health Psychology, 12,* 350-364.

Gouldner, A. W. (1960). The norm of reciprocity: An preliminary statement. *American Sociological Review, 25,* 161-178.

Greenhalgh L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review, 9,* 438-448.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10,* 76-88.

Hackett, R. D., Bycio, P., & Hausdorf, P. A. (1994). Further assessments of Meyer and Allen's (1991) Three-component model of organizational commitment. *Journal of Applied Psychology, 79,* 15-23.

Hackett, R. D., Lapierre, L. M., & Hausdorf, P. A. (2001). Understanding the links between work commitment constructs. *Journal of Vocational Behavior, 58,* 392-413.

Halbesleben, J. R. B., Harvey, J., & Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology, 94,* 1452-1465.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87,* 268-279.

Hartley, J., Jacobson, D., Klandermans, B., & van Vuuren, T. (1991). *Job insecurity. Coping with jobs at risk.* London: Sage.

Hartman Ellis, B., & Miller, K. (1994). Supportive communication among nurses: Effects on commitment, burnout, and retention. *Health Communication, 6,* 77-96.

Hattrup, K., Mueller, K., & Aguirre, P. (2008). An evaluation of cross-national generalizability of organizational commitment. *Journal of Occupational and Organizational Psychology, 81,* 219-240.

Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). The aging workforce: Realities, myths, and implications for organizations. In J. W. Hedge, W. C. Borman, & S. E. Lammeln (Eds.), *Age, attitudes, personality, and successful aging* (pp. 63-77). Washington: American Psychological Association.

Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a Three-Component Model. *Journal of Applied Psychology, 87*, 474-487.

Hobfoll, S. E. (1989). Conservation of resources. A new attempt at conceptualizing stress. *American Psychologist, 44,* 513-524.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology, 6,* 307-324.

Hobfoll, S. E. & Shirom, A. (2001). Conservation of resources theory. Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.), *Handbook of organizational behavior* (pp. 57-80). New York: Marcel Dekker.

Hofstede, G. (1998). Attitudes, values and organizational culture: Disentangling the concepts. *Organization Studies, 19,* 477-492.

Hofstede, G. (2001). *Culture's Consequences*: *Comparing values, behaviors, institutions, and organizations across nations.* Thousand Oaks: Sage.

Hofstede, G., Neuijen, B., Ohayv, D. D., & Sanders, G. (1990). Measuring organizational cultures: A qualitative and quantitative study across twenty cases. *Administrative Science Quarterly, 35*, 286-316.

House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *Leadership Quarterly, 7,* 323-352.

Hsieh, H.-F., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15,* 1277-1288.

Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Hyvönen, K., Feldt, T., Salmela-Aro, K., Kinnunen, U., & Mäkikangas, A. (2009). Young managers' drive to thrive: A personal work goal approach to burnout and work engagement. *Journal of Vocational Behavior, 75,* 183-196.

Idsoe, T. (2006). Job aspects in the school psychology service: Empirically distinct associations with positive challenge at work, perceived control at work, and job attitudes. *European Journal of Work and Organizational Psychology, 15,* 46-72.

Jackson, P. R., Wall, T. D., Martin, R., & Davids, K. (1993). New measures of job control, cognitive demand, and production responsibility. *Journal of Applied Psychology*, *78,* 753-762.

Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) Three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior, 51,* 319-337.

Jaros, S. (2009). Measurement of commitment. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 347-381). New York: Routledge.

Jaussi, K. S. (2007). Attitudinal commitment: A three-dimensional construct. *Journal of Occupational and Organizational Psychology, 80,* 51-61.

Johnson, R. E., Groff, K. W., & Taing, M. U. (2009). Nature of the interactions among organizational commitments: Complementary, competitive or synergistic? *British Journal of Management, 20,* 431-447.

Jokivuori, P. (2002). *Commitment to organization and trade union: Competing or complementary?* Jyväskylä Studies in Education, Psychology and Social Research, 206.

Jyväkorpi, P. (2006). Terveydenhuollossa työvoimapulaa – totta tai sitten ei [Shortage of manpower in health care – fact or fiction?]. *Socius, 1*. Ministry of Social Affairs and Health, Finland.

Kalliath, T. J., Bluedorn, A. C. & Strube, M. J. (1999). A test of value congruence effects. *Journal of Organizational Behavior, 20,* 1175-1198.

Kanter, R. M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American Sociological Review, 33*, 499-517.

Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology, 67,* 341-349.

Karasek, R. A. Jr. (1979). Job demands, job decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly, 24,* 285-308.

Karasek, R., & Theorell, T. (1990). *Healthy work: stress, productivity, and the reconstruction of working life.* New York: Basic Books.

Kidd, J. M., & Smewing, C. (2001). The role of supervisor in career and organizational commitment. *European Journal of Work and Organizational Psychology, 10,* 25-40.

King, N. (2004). Using interviews in qualitative research. In C. Cassel & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 11-22). Thousand Oaks: Sage.

Kinnunen, U., Geurts, S., & Mauno, S. (2004). Work-to-family conflict and its relationship with satisfaction and well-being: a one-year longitudinal study on gender differences. *Work & Stress, 18,* 1-22.

Kinnunen, U., & Mauno, S. (2008). Work-family conflict in individual's live: prevalence, antecedents and outcomes. In K. Näswall, J. Hellgren & M. Sverke (Eds.), *The individual in the changing working life*. (pp. 126-146). UK: Cambridge University Press.

Kinnunen, U., Mauno, S., Nätti, J. & Happonen, M. (2000). Organizational antecedents and outcomes of job insecurity: a longitudinal study in three organizations in Finland. *Journal of Organizational behavior*, 21, 443-459.

Klein, H. J., Molloy, J. C., & Cooper, J. T. (2009). Conceptual foundations: Construct definitions and theoretical representations of workplace commitments. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 3-36). New York: Routledge.

Ko, J.-W., Price, J. L., & Mueller, C. W. (1997). Assessment of Meyer and Allen's Three-component model of organizational commitment in South Korea. *Journal of Applied Psychology, 82,* 961-973.

Koeber, C., & Wright, D. W. (2001). W/age bias in worker displacement: how industrial structure shapes the job loss and earnings decline of older American workers. *Journal of Socio-Economics, 30*, 343-352.

Kompier, M. (2005). Assessing the psychosocial work environment – "subjective" versus "objective" measurement. *Scandinavian Journal of Work, Environment & Health, 31,* 405-408.

Kooij, D. T. A. M., Jansen, P. G. W., Dikkers, J. S. E., & De Lange, A. H. (2010). The influence of age on the associations between HR practices and both affective commitment and job satisfaction: A meta-analysis. *Journal of Organizational Behavior, 31*, 1111-1136.

Kossek, E. E., & Ozeki, C. (1999). Bridging the work-family policy and productivity gap: A literature review. *Community, Work, and Family, 2,* 7-32.

Krausz, M., Sagie, A., & Bidermann, Y. (2000). Actual and preferred work schedules and scheduling control as determinants of job-related attitudes. *Journal of Vocational Behavior, 56,* 1-11.

Kvale, S. (1996). *InterViews. An introduction to qualitative research.* Thousand Oaks: Sage.

Laine, M. (2005). *Organizational and professional commitment of nurses.* Finnish Institute of Occupational Health. University of Turku, Faculty of Medicine, Occupational Health. Ser. C 233.

Lawler, E. J. (1992). Affective attachments to nested groups: A choice-process theory. *American Sociological Review, 57,* 327-339.

Lee, J., & Peccei, R. (2007). Perceived organizational support and affective commitment: the mediating role of organizational-based self-esteem in the context of job insecurity. *Journal of Organizational Behavior, 28,* 661-685.

Lindell, M. K., & Brandt, C. J. (2000). Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology, 85*, 331-348.

Lippmann, S. (2008). Rethinking risk in the new economy: Age and cohort effects on unemployment and re-employment. *Human Relations, 61*, 1259-1292.

Llorens, S., Bakker, A. B., Schaufeli, W., & Salanova, M. (2006). Testing the robustness of the Job Demands-Resources Model. *International Journal of Stress Management, 13*, 378-391.

Lok, P., & Crawford, J. (1999). The relationship between commitment and organization culture, subculture, leadership style and job satisfaction in organizational change and development. *Leadership & Organization Development Journal, 20*, 365-373.

Lok, P., & Crawford, J. (2001). Antecedents of organizational commitment and the mediating role of job satisfaction. *Journal of Managerial Psychology, 16*, 594-613.

Lok, P., & Crawford, J. (2004). The effect of organizational culture and leadership style on job satisfaction and organizational commitment: A cross-national comparison. *Journal of Management Development, 23*, 321-338.

Lord, A., & Hartley, J. (1998). Organizational commitment and job insecurity in a changing public service organization. *European Journal of Work and Organizational Psychology, 7,* 341-354.

Loughlin, C., & Barling, J. (2001). Young workers' work values, attitudes, and behaviours. *Journal of Occupational and Organizational Psychology, 74,* 543-558.

Lubke, G. H., & Muthén, B. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods, 10,* 21-39.

Luthans, B. C., & Sommer, S. M. (1999). The impact of downsizing on workplace attitudes: Differing reactions of managers and staff in a health care organization. *Group & Organization Management, 24,* 46-70.

Lyness, K. S., & Thompson, D. E. (1997). Above the glass ceiling? A comparison of matched samples of female and male executives. *Journal Applied Psychology, 82,* 359-375.

Löckenhoff, C. E, & Carstensen, L. L. (2004). Socioemotional selectivity theory, aging, and health: The increasingly delicate balance between regulating emotions and making tough choices. *Journal of Personality, 72*, 1395-1424.

Maertz, C. P. Jr., Griffeth, R. W., Campbell, N. S., & Allen, D. G. (2007). The effects of perceived organizational support and perceived supervisor support on employee turnover. *Journal of Organizational Behavior, 28,* 1059-1075.

Martin, J. (2002). *Organizational culture: mapping the terrain*. Newbury Park, CA: Sage.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108,* 171-194.

Matthews, R. A., Bulger, C. A., & Barnes-Farrell, J. L. (2010). Work social supports, role stressors, and work-family conflict: The moderating effect of age. *Journal of Vocational Behavior, 76,* 78-90.

Mauno, S. (2010). Effects of work-family culture on employee well-being: exploring moderator effects in a longitudinal sample. *European Journal of Work and Organizational Psychology, 29,* 675-695.

Mauno, S., De Cuyper, N., Kinnunen, U., & De Witte, H. (2011). Work characteristics in long-term temporary workers and temporary-to-permanent workers: A prospective study among Finnish health care personnel. *Economic and Industrial Democracy,* June 23, 1-21. http://eid.sagepub.com/content/early/2011/06/23/0143831X11408939

Mauno, S., & Kinnunen, U. (1999). The effects of job stressors on marital satisfaction in Finnish dual-earner couples. *Journal of Organizational Behavior, 20,* 879-895.

Mauno, S., Kinnunen, U., Mäkikangas, A., & Nätti, J. (2005a). Psychological consequences of fixed-term employment and perceived job insecurity among health care staff. *European Journal of Work and Organizational Psychology, 14,* 209-237.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2005b). Perhemyönteinen organisaatiokulttuuri henkilöstön voimavarana: kyselytutkimus kolmessa organisaatiossa [Family-friendly organizational culture as a resource for staff members: questionnaire research in three organizations]. *Työ ja Ihminen, 19,* 107-129.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2006). Exploring work- and organization-based resources as moderators between work-family conflict, well-being, and job attitudes. *Work & Stress, 20,* 210-233.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: a longitudinal study. *Journal of Vocational Behavior*, *70,* 149-171.

Mauno, S., Kiuru, N., & Kinnunen, U. (2011). Relationships between work-family culture and work attitudes at both the individual and the departmental level. *Work & Stress, 25,* 147-166.

Mauno, S., Pyykkö, M., & Hakanen, J. (2005c). Koetaanko organisaatiossamme työn imua? Työn imun yleisyys ja selittävät tekijät kolmessa erilaisessa organisaatiossa [The prevalence and antecedents of work engagement in three different organizations]. *Psykologia, 1,* 16-30.

Mauno, S., & Ruokolainen, M. (2005). Organisaatiokulttuurin yhteys henkilöstön työhyvinvointiin ja työasenteisiin [The relationship between organizational culture and employee well-being and job attitudes]. In U. Kinnunen, T. Feldt, & S. Mauno (Eds.), *Työ leipälajina. Työhyvinvoinnin psykologiset perusteet* (pp. 142-165). Jyväskylä: PS-kustannus.

Mauno, S., & Ruokolainen, M. (2006). Organisaatiokultturin perhemyönteisyys ja työhyvinvointi. Interventiotutkimus kahdessa hoitotyön työyhteisössä [The family supportiveness of the organizational culture and well-being at work]. *Psykologia, 4,* 269-285.

McGee, G. W., & Ford, R. C. (1987). Two (or more?) dimensions of organizational commitment: Reexamination of the affective and continuance commitment scales. *Journal of Applied Psychology, 72,* 638-642.

McKenna, S. (2005). Organizational commitment in the small entrepreneurial business in Singapore. *Cross Cultural Management, 12,* 16-37.

Meierhans, D., Rietmann, B., & Jonas, K. (2008). Influence of fair and supportive leadership behavior on commitment and organizational citizenship behavior. *Swiss Journal of Psychology, 67,* 131-141.

Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Convergence between measures of work-to-family and family-to-work conflict: A meta-analytic examination. *Journal of Vocational Behavior, 67,* 215-232.

Meyer, J. P. (2009). Commitment in a changing world of work. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 37-68). New York: Routledge.

Meyer, J. P., & Allen, N. J. (1984). Testing the "Side-Bet Theory" of organizational commitment: Some methodological considerations. *Journal of Applied Psychology, 69,* 372-378.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1,* 61-89.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace. Theory, research, and application.* Thousand Oaks: Sage.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a Three-Component Conceptualization. *Journal of Applied Psychology, 78,* 538-551.

Meyer, J. P., Bobocel, D. R., & Allen, N. J. (1991). Development of organizational commitment during the first year of employment: A longitudinal study of pre- and post-entry influences. *Journal of Management, 17,* 717-733.

Meyer, J. P., Hecht, T. D., Gill, H., & Toplonytsky, L. (2010). Person-organization (culture) fit and employee commitment under conditions of organizational change: A longitudinal study. *Journal of Vocational Behavior, 76,* 458-473.

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace. Toward a general model. *Human Resource Management Review, 11,* 299-326.

Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review, 20,* 283-294.

Meyer, J. P., Srinivas, E. S., Lal, J. B., & Topolnytsky, L. (2007). Employee commitment and support for an organizational change: Test of the three-component model in two cultures. *Journal of Occupational and Organizational Psychology, 80,* 185-211.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61,* 20-52.

Miller, J., & Glassner, B. (1997). The 'inside' and the 'outside': Finding realities in interviews. In D. Silverman (Ed.), *Qualitative Research: Theory, Method and Practice* (pp. 99-112). Thousand Oaks: Sage.

Millward, L. J., & Brewerton, P. M. (2000). Psychological contracts: Employee relations for the twenty-first century? *International Review of Industrial and Organizational Psychology, 15,* 1-61.

Mirels, H. L., & Garrett, J. B. (1971). The protestant ethic as a personality variable. *Journal of Consulting and Clinical Psychology, 36,* 40-44.

Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review, 22*, 226-256.

Morrow, P. C. (1993). *The theory and measurement of work commitment.* Monographs in Organizational Behavior and Industrial Relations, Vol. 15. Greenwich, England: Jai Press.

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). Employee-organizational linkages: The psychology of commitment, absenteeism, and turnover. In P. Warr (Ed.), *Organizational and occupational psychology* (pp. 219-229). New York: Academic Press.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14,* 224-247.

Mueller, C. W., & Lawler, E. J. (1999). Commitment to nested organizational units: Some basic principles and preliminary findings. *Social Psychology Quarterly, 62,* 325-346.

Muthén, B. O. (2001). Latent variable mixture modeling'. In G. A. Marcoulides, & R. E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* (pp. 1-33). London: Lawrence Erlbaum Associates.

Muthén, B., Asparouhov, T., & Rebollo, I. (2006). Advances in behavioral genetics modeling using Mplus: Applications of factor mixture modeling to twin data. *Twin Research and Human Genetics, 9*, 313-324.

Muthén, B., & Muthén, L. K. (2000). Integrating person-centered and variable-centered analyses: Growth mixture modelling with latent trajectory classes. *Alcoholism: Clinical and Experimental Research, 24*, 882-891.

Muthén, L. K., & Muthén, B. O. (2004). *Mplus. Statistical analysis with latent variables. User's guide.* Los Angeles, CA: Muthén & Muthén.

Neininger, A., Lehmann-Willenbrock, N., Kauffeld, S., & Henschel, A. (2010). Effects of team and organizational commitment – A longitudinal study. *Journal of Vocational Behavior, 76,* 567-579.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81,* 400-410.

Ng, T. W. H., Butts, M. M., Vandenberg, R. J., DeJoy, D. M., & Wilson, M. G. (2006). Effects of management communication, opportunity for learning, and work schedule flexibility on organizational commitment. *Journal of Vocational Behavior, 68,* 474-489.

Ng, T. W. H., & Feldman, D. C. (2008). Can you get a better deal elsewhere? The effects of psychological contract replicability on organizational commitment over time. *Journal of Vocational Behavior, 73,* 268-277.

Ng, T. W. H., & Feldman, D. C. (2009). Age, work experience, and the psychological contract. *Journal of Organizational Behavior, 30,* 1053-1075.

Ng, T. W. H., & Feldman, D. C. (2010a). Idiosyncratic deals and organizational commitment. *Journal of Vocational Behavior, 76,* 419-427.

Ng, T. W. H., & Feldman, D. C. (2010b). The relationships of age with job attitudes: A meta-analysis. *Personnel Psychology, 63,* 677-718.

Ng, T. W. H., Feldman, D. C., & Lam, S. S. K. (2010). Psychological contract breaches, organizational commitment, and innovation-related behaviors: A latent growth modeling approach. *Journal of Applied Psychology, 95,* 744-751.

Noordin, F., Williams, T., & Zimmer, C. (2002). Career commitment in collectivist and individualist cultures: a comparative study. *International Journal of Human Resource Management, 13,* 35-54.

Nordqvist, S., Hovmark, S., & Zika-Viktorsson, A. (2004). Perceived time pressure and social processes in project teams. *International Journal of Project Management, 22,* 463-468.

O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology, 71,* 492-499.

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal, 34*, 487-516.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775-802.

Ostroff, C., Shin, Y., & Kinicki, A. J. (2005). Multiple perspectives of congruence: relationships between value congruence and employee attitudes. *Journal of Organizational Behavior, 26,* 591-623.

Panaccio, A., & Vandenberghe, C. (2009). Perceived organizational support, organizational commitment and psychological well-being: A longitudinal study. *Journal of Vocational Behavior, 75,* 224-236.

Parker, S. K., Axtell, C. M., & Turner, N. (2001). Designing a safer workplace: Importance of job autonomy, communication quality, and supportive supervisors. *Journal of Occupational Health Psychology, 6,* 211-228.

Parzefall, M.-R. (2008). Psychological contracts and reciprocity: a study in a Finnish context. *The International Journal of Human Resource Management, 19,* 1703-1719.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newsbury Park: Sage.

Peterson, S. J., & Spiker, B. K. (2005). Establishing the positive contributory value of older workers: A positive psychology perspective. *Organizational Dynamics, 34,* 153-167.

Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59,* 603-609.

Postmes, T., Tanis, M., & de Wit, B. (2001). Communication and commitment in organizations: A social identity approach. *Group Processes & Intergroup Relations, 4,* 227-246.

Powell, D. M., & Meyer, J. P. (2004). Side-bet theory and the three-component model of organizational commitment. *Journal of Vocational Behavior, 65,* 157-177.

PTT'S forecast for the Finnish forest sector 2008-2009 (2008). Helsinki: Pellervo economic research institute. Retrieved from: http://www.ptt.fi/site/?lan=3&mode=tiedotteet&tiedote_id=1064

Randall, D. M., & Cote, J. A. (1991). Interrelationships of work commitment constructs. *Work and Occupations, 18,* 194-211.

Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavioral expression of organizational commitment. *Journal of Vocational Behavior, 36,* 210-224.

Rashid, Md. Z. A., Sambasivan, M., & Johari, J. (2003). The influence of corporate culture and organizational commitment on performance. *Journal of Management Development, 22*, 708-728.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87,* 698-714.

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology, 86,* 825-836.

Rhodes, S. R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin, 93,* 328-367.

Riketta, M. (2008). The causal relation between job attitudes and performance: a meta-analysis of panel studies. *Journal of Applied Psychology, 93,* 472-481.

Riketta, M., & Van Dick, R. (2005). Foci of attachment in organizations: A meta-analytic comparison of the strength and correlates of workgroup versus organizational identification and commitment. *Journal of Vocational Behavior, 67,* 490-510.

Robertson, P. J., Lo, C. W.-H., & Tang, S.-Y. (2007). Money, mission, or match: Antecedents of commitment among public employees in China. *Administration & Society, 39,* 3-24.

Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal, 2,* 121-139.

Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements.* Thousand Oaks: Sage.

Rousseau, D. M. (2001). Schema, promise and mutuality: The building blocks of the psychological contract. *Journal of Occupational and Organizational Psychology, 74*, 511-541.

Ruotsalainen, M., & Kinnunen, U. (2009). Työelämä muuttuu – muuttuko työntekijän psykologisen sopimuksen sisältö? Katsaus viimeaikaiseen tutkimukseen [Working life is changing – Is the content of the employee's psychological contract changing with it? Review of the latest research]. *Työelämän tutkimus, 2,* 117-123.

Sackmann, S. (2001). Cultural complexity in organizations: The value and limitations of qualitative methodology and approaches. In C. Cooper, S. Cartwright, & P. Earley (Eds.), *International handbook of organizational culture and climate* (pp. 143-163). Chichester: Wiley

Schein, E. H. (1985). *Organizational culture and leadership.* San Francisco, CA: Jossey-Bass.

Schein, E. H. (1990). Organizational culture. *American Psychologist, 45*, 109-119.

Schneider, B. (2000). The psychological life of organizations. In N. M. Ashkanasy, C. P. Wilderom, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. xvii-xxi). Thousand Oaks: Sage.

Schneider, B., Salvaggio, A. N., & Subirats, M. (2002). Climate strength: A new direction for climate research. *Journal of Applied Psychology, 87,* 220-229.

Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology, 81,* 219-227.

Silverthorne, C. (2004). The impact of organizational culture and person-organization fit on organizational commitment and job satisfaction in Taiwan. *The Leadership & Organization Development Journal, 25*, 592-599.

Singh, V., & Vinnicombe, S. (2000). What does "commitment" really mean? Views of UK and Swedish engineering managers. *Personnel Review, 29,* 228-258.

Smulders, P. G. W., & Nijhuis, F. J. N. (1999). The job demands-job control model and absence behaviour: result of a 3-year longitudinal study. *Work & Stress, 13,* 115-131.

Solinger, O. N., van Olffen, W., & Roe, R. A. (2008). Beyond the three-componenet model of organizational commitment. *Journal of Applied Psychology, 93,* 70-83.

Somech A., & Drach-Zahavy, A. (2007). Strategies for coping with work-family conflict: The distinctive relationships of gender role ideology. *Journal of Occupational Health Psychology, 12,* 1-19.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations, 39,* 1005-1016.

Spector, T. (1998). A control theory of the job stress process. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 153-169). Oxford, UK: Oxford University Press.

Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology, 3,* 356-367.

Stanton, J. M., Sinar, E. F., Balzer, W. K., & Smith, P. C. (2002). Issues and strategies for reducing the length of self-report scales. *Personnel Psychology, 55*, 167-194.

Steyrer, J., Schiffinger, M., & Lang, R. (2008). Organizational commitment – A missing link between leadership behavior and organizational performance? *Scandinavian Journal of Management, 24,* 364-374.

Stordeur, S., D'hoore, W., van der Heijden, B., Dibisceglie, M., Laine, M., van der Schoot, E. and the NEXT-Study Group. (2003). Leadership, job satisfaction and nurses' commitment. In H.-M. Hasselhorn, P. Tackenberg & B. H. Müller (Eds.), *Working conditions and intent to leave the profession among nursing staff in Europe* (pp. 28-45). SALTSA Report No 7:2003. Stockholm: National Institute of Working life.

Streb, C. K., Voelpel, S. C., & Leibold, M. (2008). Managing the aging workforce: Status quo and implication for the advancement of theory and practice. *European Management Journal, 26,* 1-10.

Sturges, J., Conway, N., Guest, D., & Liefooghe, A. (2005). Managing the career deal: The psychological contract as a framework for understanding career management, organizational commitment and work behavior. *Journal of Organizational Behavior, 26,* 821-838.

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology, 7,* 242-264.

Terry, D. J., & Jimmieson, N. L. (1999). Work control and employee well-being. A decade review. In C. L. Cooper, & I. T. Robertson (Eds.), *International review of industrial and organizational Psychology* (pp. 95-148). Chichester: Wiley.

The 2009 Ageing report. Economy and budgetary projections for the EU-27 member states (2008-2060). European Commission: Forthcoming European Economy 2/2009.

Thomas, H. D., & Anderson, N. (1998). Changes in newcomers' psychological contracts during organizational socialization: a study of recruits entering the British army. *Journal of Organizational Behavior, 19,* 745-767.

Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin, 129,* 914-945.

Triandis, H. C. (1995). *Individualism and collectivisism.* Boulder, CA: Westview Press.

Tuomi, J., & Sarajärvi, A. (2003). *Laadullinen tutkimus ja sisällönanalyysi* [Qualitative research and content analysis]. Helsinki: Tammi.

Tuomi, K., Vanhala, S., Janhonen, M., & Nykyri, E. (2006). Työkyvyn ja sitoutumisen yhteydet henkilöstön hyvinvointiin ja yrityksen kilpailukykyyn [Work ability and commitment and their associations with employee well-being and company competitiveness]. *Työelämän tutkimus, 4,* 109-121.

Van den Berg, P. T., & Wilderom, C. P. M. (2004). Defining, measuring, and comparing organizational cultures. *Applied Psychology: An International Review, 53*, 570-582.

Vandenberg, R. J., & Self, R. M. (1993). Assessing newcomers' changing commitments to the organization during the first 6 months of work. *Journal of Applied Psychology, 78,* 557-568.

Vandenberghe, C. (2009). Organizational commitments. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 99-135). New York: Routledge.

Vandenberghe, C., Bentein, K., & Stinglhamber, F. (2004). Affective commitment to the organization, supervisor, and work group: Antecedents and outcomes. *Journal of Vocational Behavior, 64,* 47-71.

Vandenberghe, C., & Peiró, J. M. (1999). Organizational and individual values: Their main and combined effects on work attitudes and perceptions. *European Journal of Work and Organizational Psychology, 8,* 569-581.

Vandenberghe, C., Stinglhamber, F., Bentein, K., & Delhaise, T. (2001). An examination of the cross-cultural validity of a multidimensional model of commitment in Europe. *Journal of Cross-Cultural Psychology, 32,* 322-347.

Van Knippenberg, D., & van Schie, E. C. M. (2000). Foci and correlates of organizational identification. *Journal of Occupational and Organizational Psychology, 73,* 137-147.

Verquer, M. L., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. *Journal of Vocational Behavior, 63*, 473-489.

Wagena, E., & Geurts, S. A. E. (2000). SWING: Ontwikkeling en validering van de 'Survey Werk-thuis Interferentie-Nijmegen'. [SWING: Development and validation of the 'Survey work-home interference-Nijmegen']. *Gedrag & Gezondheit, 28,* 138-158.

Wasti, S. A. (2005). Commitment profiles: Combinations of organizational commitment forms and job outcomes. *Journal of Vocational Behavior, 67,* 290-308.

Wasti, S. A., & Can, Ö. (2008). Affective and normative commitment to organization, supervisor, and coworkers: Do collectivist values matter? *Journal of Vocational Behavior, 73,* 404-413.

Wasti, S. A., & Önder, Ç. (2009). Commitment across cultures: Progfess, pitfalls, and propositions. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 309-343). New York: Routledge.

Wayne, S. J., Coyle-Shapiro, J. A.-M., Eisenberger, R., Liden, R. C., Rousseau, D. M., & Shore, L. M. (2009). Social influences. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations. Accumulated wisdom and new directions* (pp. 253-284). New York: Routledge.

Weiss, H. M. & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw, & L. L.Cummings (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews, 18* (pp. 1-74). Greenwich, CT: Jai Press.

Wiener, Y. (1982). Commitment in organizations: a normative view. *Academy of Management Review, 7,* 418-428.

Worrall, L., Cooper, C. L., & Campbell-Jamison, F. (2000). The impact of organizational change on the work experiences and perceptions of public sector managers. *Personnel Review, 29,* 613-636.

Wright, P. M., Gardner, T. M., Moynihan, L. M., & Allen, M. R. (2005). The relationship between HR practices and firm performance: examining causal order. *Personnel Psychology, 58,* 409-446.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior, 74,* 235-244.

Xenikou A., & Furnham, A. (1996). A correlational and factor analytic study of four questionnaire measures of organizational culture. *Human Relations, 49,* 349-371.

Yiing, L. H., & Ahmad, K. Z. B. (2009). The moderating effects of organizational culture on the relationship between leadership behaviour and organizational commitment and between organizational commitment and job satisfaction and performance. *Leadership & Organizational Development Journal, 30,* 53-86.

Zaleska, K. J., & de Menezes, L. M. (2007). Human resources development practices and their association with employee attitudes: Between traditional and new careers. *Human Relations, 60*, 987-1018.

Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology, 1,* 145-169.

Zemke, R., Raines, C., & Filipczak, B. (2000). *Generations at Work. Managing the Clash of Veterans, Boomers, Xers, and Nexters in Your Workplace*. New York: AMACOM.

Zhao, H., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: A meta-analysis. *Personnel Psychology, 60*, 647-680.

APPENDIX 1 THE AUTHOR'S ROLE IN THE RESEARCH PROJECT

This study was based on a larger research project "Organizational Culture and Well-being (2003-2006). The author was employed as a research assistant in this project in March 2003. The planning of the project had begun in autumn 2002 and the themes and measures, which were to be included in the first survey and in the interview study following it, were decided at that stage. The author could not thus influence the content of the first questionnaire. In the case of the interview study, the author saw the interview questions beforehand and added one question concerning organizational commitment to it. The follow-up questionnaire was very similar to the first one used in the cross-sectional study.

Thus far, in addition to this dissertation, nine research articles (Mauno, 2010; Mauno, De Cuyper, Kinnunen, & De Witte, 2011; Mauno et al., 2005ab, 2006, 2007; Mauno, Kiuru, & Kinnunen, 2011; Mauno, Pyykkö, & Hakanen, 2005c; Mauno & Ruokolainen, 2006) utilizing the same data have been published. The present author was a co-author in five of these articles (Mauno et al., 2005bc, 2006, 2007; Mauno & Ruokolainen, 2006), and the measure of organizational commitment used in this dissertation was included in three of them (Mauno et al., 2005b, 2006; Mauno & Ruokolainen, 2006).

In order to clarify the relationships between the results reported here and in the previous studies, it is useful to point out that organizational commitment was not the main interest in those, previously published studies. Instead, the prior studies focused, for example, on the direct and indirect (i.e., moderator) role of work- and organization-related resources (e.g., family-supportive organizational culture, job control, organizational-based self-esteem) in the work-family conflict and well-being/job attitude relationship. In this relationship, organizational commitment was only one of the well-being/job attitude indicators that were explored. In addition, organizational commitment was always analyzed as a composite score, and hence no separate results for the dimensions of affective and normative commitment were reported. However, my starting point in this dissertation was to examine whether the two dimensions of organizational commitment have different or similar antecedents; consideration of this issue was totally absent in the earlier articles.

APPENDIX 2 MEASURES AND ITEMS INCLUDED IN THIS STUDY

Note. Original items in English can be found in the the references given after the title of the scale.

Organisaatioon sitoutuminen (Meyer et al., 1993)

Affektiivinen sitoutuminen (affective commitment)
1. Pysyisin tässä organisaatiossa hyvin mielelläni työurani loppuun
2. Organisaatiossamme esiintyvät ongelmat tuntuvat minusta omakohtaisesti tärkeiltä
3. En tunne voimakasta yhteenkuuluvuutta tämän organisaation kanssa R
4. En tunne kiintymästä tähän organisaatioon R
5. En oikein tunne kuuluvani joukkoon tässä organisaatiossa R
6. Tämä organisaatio merkitsee minulle henkilökohtaisesti paljon

Normatiivinen sitoutuminen (normative commitment)
1. Minulla ei mielestäni ole mitään velvollisuutta pysyä nykyisen työnantajani palveluksessa R
2. En katso, että olisi oikein lähteä nyt tästä organisaatiosta siinäkään tapauksessa, että siitä olisi minulle etua
3. Kokisin syyllisyyttä, mikäli lähtisin tästä organisaatiosta nyt
4. Tämä organisaation on ansainnut sen, että olen sille uskollinen
5. Velvollisuudentunto organisaationi ihmisiä kohtaa estäisi minua lähtemästä tästä organisaatiosta nyt
6. Saan kiittää tätä organisaatiota paljosta

Organisaatiokulttuuri, alkuperäinen mittari (original OCP-50 survey) (Ashkanasy et al., 2000; Broadfoot & Ashkanasy, 1994)

Johtaminen (Leadership)
1. Johto osoittaa toiminnallaan, että se asettaa asiakkaat etusijalle
2. Johto pitää organisaatiomme raiteillaan
3. Johtajistamme näkyy, että he ovat sitoutuneet organisaatiomme päämääriin
4. Jotkut johtajista symbolisoivat organisaatiomme arvoja ja uskomuksia
5. Organisaatiomme johto näyttää esimerkkiä muille

Rakenne (Structure)
6. Organisaatiossamme säännöt ovat keskeisiä
7. Organisaatiomme toimintaperiaatteet ja käytännöt ovat höydyllisiä ja ajantasaisia ja ne ymmärretään hyvin
8. Teemmepä melkein mitä vain, siihen tulee kysyä esimiehiltä lupa
9. Organisaatiomme jäsenten odotetaan noudattavan määräyksiä, vaikka he pitäisivät niitä väärinä
10. Organisaatiomme rakenteet rajoittavat sitä, miten voimme toimia

Innovatiivisuus (Innovation)
11. Organisaatiossamme ei vältetä riskien ottamista
12. Joudumme usein tekemään päätöksiä puutteellisten tietojen perusteella R
13. Henkilöstöä kannustetaan kehittämään itse parempia työtapoja

14. Täällä arvostetaan suuresti uusia ideoita
15. Henkilöstöä kannustetaan täällä innovaatioihin ja luovuuteen

Työsuoritukset (Job performance)
16. Yksilöiden palkitseminen perustuu organisaatiossamme suorituksiin
17. Hyväksymme nekin ihmiset, joiden kanssa emme tule toimeen, jos he tekevät työnsä hyvin
18. Täällä painotetaan tulosten aikaansaamista
19. Organisaatiossamme on selvät kriteerit, joiden mukaan työssä suoriutumista mitataan
20. Organisaatiomme jäsenet arvostavat hyviä suorituksia ja pyrkivät niihin

Suunnitelmallisuus (Planning)
21. Pyrimme todella noudattamaan organisaation suunnitelmia
22. Organisaatiollamme on erittäin selvät tavoitteet
23. Meitä kannustetaan ottamaan osaa toimintalinjojen suunnitteluun
24. Täällä seurataan säännöllisesti asetettujen tavoitteiden toteutumista
25. Organisaatiossamme on selvä suunnitelmä siitä, miten tavoitteisiin pyritään

Viestintä (Communication)
26. Täällä kannustetaan avoimeen ja vapaaseen tiedon vaihtoon
27. Johtajamme rohkaisevat henkilöstöä esittämään mielipiteitään ja yleensä ottavat ne huomioon
28. Tiedonkulku on useimmiten erittäin hyvä organisaatiomme kaikilla tasoilla
29. Organisaatiotamme koskevaa tietoa kuulee parhaiten käytävillä ja kahvihuoneissa R
30. Organisaatiomme pitää jäsenensä hyvin ajan tasalla henkilöstön kannalta tärkeistä asioista

Ympäristö (Environment)
31. Työntekijät tietävät, mitä asiakkaat odottavat organisaatioltamme
32. Organisaatiossamme korostetaan asiakkaiden tarpeita työntekijöiden tarpeita enemmän
33. Jokainen organisaatiomme jäsen tietää, miten tärkeää on huolehtia asiakkaista
34. Organisaatiotamme pidetään edelläkävijänä suhteessa muihin vastaaviin organisaatioihin
35. Organisaatiomme vastaa nopeasti ympäristön muutoksiin

Humanistisuus (Humanistic)
36. Organisaatiossamme kunnioitetaan yksilöllisyyttä
37. Organisaatiossamme toimivat ihmiset auttavat toisiaan työhön liittyvissä ja henkilökohtaisissa ongelmissa
38. Organisaatiomme pitää henkilöstönsä hyvinvointia ensiarvoisen tärkeänä
39. Organisaatiossa rohkaistaan pitämään yllä sosiaalisia suhteita
40. Kaiken kaikkiaan organisaatiomme on sopusointuinen paikka työskennellä

Henkilöstön kehittäminen (Development of individual)
41. Organisaatiomme käyttää säännöllisesti aikaa ja muita resursseja henkilöstön kehittämiseen
42. Organisaatiomme jäsenet pitävät henkilökohtaista kehittymistä ja uralla etenemistä tärkeänä
43. Organisaatiomme tarjoaa mahdollisuuksia sekä itsensä kehittämiseen että uralla etenemiseen

44. Organisaatiossamme on onnistuttu kehittämään työntekijöitä haastavampiin työtehtäviin
45. Saamamme koulutus ei riitä siihen, että työstä suoriuduttaisiin hyvin R

Perehdyttäminen (Socialization on entry)
46. Uusilta työntekijöiltä menee aikaa tänne sopeutumisessa R
47. Organisaatiomme jäsenet tietävät, mitä heiltä odotetaan
48. Uusien työntekijöiden opettaminen talon tavoille on jätetty organisaatiossa työtovereiden tehtäväksi R
49. Organisaatiollamme ei ole virallista työhön perehdyttämisohjelmaa R
50. Työntekijöitä opastetaan ja koulutetaan asianmukaisesti heidän tullessaan organisaatioomme

Organisaatiokulttuuri, lyhennetty versio (abridged version of OCP)

Kannustus (Encouragement)
26. Täällä kannustetaan avoimeen ja vapaaseen tiedon vaihtoon
27. Johtajamme rohkaisevat henkilöstöä esittämään mielipiteitään ja yleensä ottavat ne huomioon
13. Henkilöstöä kannustetaan kehittämään itse parempia työtapoja
14. Täällä arvostetaan suuresti uusia ideoita
15. Henkilöstöä kannustetaan täällä innovaatioihin ja luovuuteen

Viestintä (Communication)
7. Organisaatiomme toimintaperiaatteet ja käytännöt ovat höydyllisiä ja ajantasaisia ja ne ymmärretään hyvin
28. Tiedonkulku on useimmiten erittäin hyvä organisaatiomme kaikilla tasoilla
30. Organisaatiomme pitää jäsenensä hyvin ajan tasalla henkilöstön kannalta tärkeistä asioista

Humanistisuus (Humanistic workplace or humanistic culture)
37. Organisaatiossamme toimivat ihmiset auttavat toisiaan työhön liittyvissä ja henkilökohtaisissa ongelmissa
38. Organisaatiomme pitää henkilöstönsä hyvinvointia ensiarvoisen tärkeänä
39. Organisaatiossa rohkaistaan pitämään yllä sosiaalisia suhteita
40. Kaiken kaikkiaan organisaatiomme on sopusointuinen paikka työskennellä

Perehdyttäminen (Socialization on entry)
46. Uusilta työntekijöiltä menee aikaa tänne sopeutumisessa R
48. Uusien työntekijöiden opettaminen talon tavoille on jätetty organisaatiossa työtovereiden tehtäväksi R
49. Organisaatiollamme ei ole virallista työhön perehdyttämisohjelmaa R

Johtaminen (Leadership)
1. Johto osoittaa toiminnallaan, että se asettaa asiakkaat etusijalle
21. Pyrimme todella noudattamaan organisaation suunnitelmia
2. Johto pitää organisaatiomme raiteillaan
4. Jotkut johtajista symbolisoivat organisaatiomme arvoja ja uskomuksia

Sääntökeskeisyys (Rule orientation)
8. Teemmepä melkein mitä vain, siihen tulee kysyä esimiehiltä lupa
9. Organisaatiomme jäsenten odotetaan noudattavan määräyksiä, vaikka he pitäisivät niitä väärinä

10. Organisaatiomme rakenteet rajoittavat sitä, miten voimme toimia

Aikapaineet työssä (workload) (Spector & Jex, 1998)

1.Työsi vaatii sinua työskentelemään hyvin nopeasti
2. Työsi vaatii sinua työskentelemään hyvin ahkerasti
3. Sinulla on työssäsi niukasti aikaa töiden tekemiseen
4. Sinulla on hyvin paljon töitä
5. Sinulla on niin paljon töitä, ettet pysty suoriutumaan niistä hyvin

Työn epävarmuus (job insecurity) (Caplan et al., 1980)

1. Miltä tuleva työnkuvasi näyttää nykyisessä organisaatiossasi
2. Että etenet tai saat ylennyksen työssäsi muutaman vuoden sisällä
3. Että nykyinen työsi jatkuu
4. Mitkä työtehtävät ovat sinun vastuullasi puolen vuoden kuluttua

Työ-perheristiriita (work-to-family conflict) (Geurts et al., 2005; Wagena & Geurts, 2000)

1.Olet ärtyisä kotona, koska työsi vaatii paljon
2. Et pysty nauttimaan puolison/perheen/ystävien seurasta, koska ajattelet jatkuvasti työtäsi
3. Sinun on vaikea täyttää velvollisuuksiasi kotona, koska ajattelet jatkuvasti työtäsi
4. Sinun on peruttava sovittuja tapaamisiasi puolisosi/perheesi/ystäviesi kanssa työhösi liittyvien sitoutumuksien vuoksi
5. Työaikasi vaikeuttavat kotiisi liittyvien velvollisuuksien täyttämistä
6. Työsi takia et jaksa osallistua vapaa-ajan harrastuksiin puolison/perheen/ystävien kanssa
7. Sinun on tehtävä niin kovasti työtä, ettei aikaa jää harrastuksillesi
8. Työsi asettamien vaatimuksien takia sinun on vaikea rentoutua kotona
9. Työsi vie aikaa, jonka olisit halunnut viettää puolison/perheen/ystävien kanssa

Vaikutusmahdollisuudet työssä (job control) (Jackson et al., 1993)

1.Siihen, missä järjestyksessä teet työsi
2. Siihen, milloin aloitat tietyn työtehtävän
3. Siihen, milloin lopetat tietyn työtehtävän
4. Työtahtiisi
5. Siihen, miten teet työsi
6. Oman työsi suunnitteluun
7. Työskentelytapojesi vaihteluun
8. Niihin menetelmiin ja toimintatapoihin, joilla teet työtäsi

Note. R = Reverse-scored item

JYVÄSKYLÄ STUDIES IN EDUCATION, PSYCHOLOGY AND SOCIAL RESEARCH

1 Kyöstiö, O. K., Oppilaiden terveydentilan riippuvuus koulutyypistä. – Health status of pupils according to type of school. 78 p. Summary 6 p. 1962.
2 Heinonen, Veikko, Differentiation of primary mental abilities. 136 p. 1963.
3 Elonen, Anna S., Takala, Martti & Ruoppila Isto, A study of intellectual functions in children by means of the KTK performance scales. 181 p. 1963.
4 Juurmaa, Jyrki, On the ability structure of the deaf. 114 p. 1963.
5 Heinonen, Veikko, Lyhennetty faktori-analyysi. – A short method for factor analysis. 76 p. Summary 5 p. 1963.
6 Pitkänen, Pentti, Fyysisen kunnon rakenne ja kehittyminen. – The structure and development of physical fitness. 163 p. Summary 10 p. 1964.
7 Nurmi, Veli, Maamme seminaarien varsinaisen opettajakoulutuksen synty ja kehittyminen viime vuosisadalla I. – Die Entehung und Entwicklung der praktischen Lehrer-bildung unserer Lehrerseminare im vorigen Jahrhundert I. 270 p. Zusammenfassung 15 p. 1964.
8 Nurmi, Veli, Maamme seminaarien varsinaisen opettajakoulutuksen synty ja kehittyminen viime vuosisadalla II. – Die Entstehung und Entwicklung der praktischen Lehrer-bildung unserer Lehrerseminare im vorigen Jahrhundert II. 123 p. Zusammenfassung 10 p. 1964.
9 Nummenmaa, Tapio, The language of the face. 66 p. 1964.
10 Isosaari, Jussi, Bruno Boxström ja Sortavalan seminaarin kasvatusaineiden opetus 1882-1917. – Bruno Boxström und der Unterricht in den pädagogischen Fächern am Seminar von Sortavala 1882-1917. 167 p. Zusammen-fassung II p. 1964.
11 Nummenmaa, Tapio & Takala, Martti, Parental behavior and sources of information in different social groups. 53 p. 1965.
12 Weckroth, Johan, Studies in brain pathology and human performance I. – On the relationship between severity of brain injury and the level and structure of intellectual performance. 105 p. 1965.
13 Pitkänen, Pentti, Ärsyke- ja reaktioanalyyttisten faktorointitulosten vastaavuudesta. – On the congruence and coincidence between stimulus analytical and response analytical factor results. 223 p. Summary 14 p. 1967.
14 Tenkku, Jussi, Are single moral rules absolute in Kant's ethics? 31 p. 1967.
15 Ruoppila, Isto, Nuorten ja varttuneiden opiskelijoiden väliset asenne-erot eräissä ylioppilaspohjaisissa oppilaitoksissa. – Attitude differences between young and advanced university and college students. 182 p. Summary 14 p. 1967.
16 Karvonen, Juhani, The structure, arousal and change of the attitudes of teacher education students. 118 p. 1967.
17 Elonen, Anna S., Performance scale patterns in various diagnostic groups. 53 p. 1968.
18 Tuomola, Uuno, Kansakouluntarkastajaan kohdistuvista rooliodotuksista. – On role-expectations applied to school inspectors. 173 p. Summary 8 p. 1968.
19 Pitkänen, Lea, A descriptive model of aggression and nonaggression with applications to childrens behaviour. 208 p. 1969.
20 Koskiaho, Briitta, Level of living and industrialisation. 102 p. 1970.
21 Kuusinen, Jorma, The meaning of another person's personality. 28 p. 1970.
22 Viljanen, Erkki, Pohjakoulutustaso ja kansakoulunopettajan kehitysympäristöjen muodostuminen. – The level of basic education in relation to the formation of the development milieus of primary school teachers. 280 s. Summary 13 p. 1970.
23 Hagfors, Carl, The galvanic skin response and its application to the group registration of psychophysiological processes. 128 p. 1970.
24 Karvonen, Juhani, The enrichment of vocabulary and the basic skills of verbal communication. 47 p. 1971.
25 Seppo, Simo, Abiturienttien asenteet uskonnonopetukseen. – The attitudes of students toward religious education in secondary school. 137 p. Summary 5 p. 1971.
26 Renko Manu, Opettajan tehokkuus oppilaiden koulusaavutusten ja persoonallisuuden kehittämisessä. – Teacher's effectiveness in improving pupils' school achievements and developing their personality. 144 p. Summary 4 p. 1971.
27 Vaherva, Tapio, Koulutustulokset peruskoulun ala-asteella yhteisömuuttujien selittäminä. – Educational outcomes at the lower level of the comprehensive school in the light of ecological variables. 158 p. Summary 3 p. 1974.
28 Olkinuora, Erkki, Norm socialization. The formation of personal norms. 186 p. Tiivistelmä 4 p. 1974.
29 Liikanen, Pirkko, Increasing creativity through art education among pre-school children. 44 p. Tiivistelmä 4 p. 1975.
30 Elonen, Anna S., & Guyer, Melvin, Comparison of qualitative characteristics of human figure drawings of Finnish children in various diagnostic categories. 46 p. Tiivistelmä 3 p. 1975.
31 Kääriäinen, Risto, Physical, intellectual, and personal characteristics of Down's syndrome. 114 p. Tiivistelmä 4 p. 1975.
32 Määttä, Paula, Images of a young drug user. 112 p. Tiivistelmä 11 p. 1976.
33 Alanen, Pentti, Tieto ja demokratia. – Epistemology and democracy. 140 p. Summary 4 p. 1976.
34 Nupponen, Riitta, Vahvistajaroolit aikuisten ja lapsen vuorovaikutuksessa. – The experimental roles of reinforcing agent in adult-child interaction. 209 p. Summary 11 p. 1977.

35 TEIKARI, VEIKKO, Vigilanssi-ilmiön mittaamisesta ja selitysmahdollisuuksista. – On measuring and explanation of vigilance. 163 p. Summary 2 p. 1977.
36 VOLANEN, RISTO, On conditions of decision making. A study of the conceptual foundations of administration. – Päätöksenteon edellytyksistä. Tutkimus hallinnon käsitteellisistä perusteista. 171 p. Tiivistelmä 7 p. 1977.
37 LYYTINEN, PAULA, The acquisition of Finnish morphology in early childhood. – Suomen kielen morfologisten säännönmukaisuuksien omaksuminen varhaislapsuudessa. 143 p. Tiivistelmä 6 p. 1978.
38 HAKAMÄKI, SIMO, Maaseudulle muutto muuttoliikkeen osana. – Migration on rural areas as one element of migration as a whole. 175 p. Summary 5 p. 1978.
39 MOBERG, SAKARI, Leimautuminen erityispedagogiikassa. Nimikkeisiin apukoululainen ja tarkkailuluokkalainen liittyvät käsitykset ja niiden vaikutus hypoteettista oppilasta koskeviin havaintoihin. – Labelling in special education. 177 p. Summary 10 p. 1979.
40 AHVENAINEN, OSSI, Lukemis- ja kirjoittamishäiriöinen erityisopetuksessa. – The child with reading and writing disabilities in special education. 246 p. Summary 14 p. 1980.
41 HURME, HELENA, Life changes during childhood. – Lasten elämänmuutokset. 229 p. Tiivistelmä 3 p. 1981.
42 TUTKIMUS YHTEISKUNTAPOLITIIKAN VIITOITTAJANA. Professori Leo Paukkuselle omistettu juhlakirja. 175 p. 1981.
43 HIRSJÄRVI, SIRKKA, Aspects of consciousness in child rearing. – Tietoisuuden ongelma kotikasvatuksessa. 259 p. 1981.
44 LASONEN, KARI, Siirtolaisoppilas Ruotsin kouluyhteisössä. Sosiometrinen tutkimus. – A sosio-metric study of immigrant pupils in the Swedish comprehensive school. 269 p. Summary 7 p. 1981.
45 AJATUKSEN JA TOIMINNAN TIET. Matti Juntusen muistokirja. 274 p. 1982.
46 MÄKINEN, RAIMO, Teachers' work, wellbeing, and health. – Opettajan työ, hyvinvointi ja terveys. 232 p. Tiivistelmä 2 p. 1982.
47 KANKAINEN, MIKKO, Suomalaisen peruskoulun eriyttämisratkaisun yhteiskunnallisen taustan ja siirtymävaiheen toteutuksen arviointi. 257 p. Summary 11 p. 1982.
48 WALLS, GEORG, Health care and social welfare in, cooperation. 99 p. Tiivistelmä 9 p. 1982.
49 KOIVUKARI, MIRJAMI, Rote learning comprehension and participation by the learnes in Zairian classrooms. – Mekaaninen oppiminen, ymmärtäminen ja oppilaiden osallistuminen opetukseen zairelaisissa koululuokissa. 286 p. Tiivistelmä 11p. 1982.
50 KOPONEN, RITVA, An item analysis of tests in mathematics applying logistic test models. – Matematiikan kokeiden osioanalyysi logistisia testimalleja käyttäen. 187 p. Tiivistelmä 2 p. 1983.
51 PEKONEN, KYÖSTI, Byrokratia politiikan näkökulmasta. Politiikan ja byrokratian keskinäinen yhteys valtio- ja yhteiskuntaprosessin kehityksen valossa. – Bureaucracy from the viewpoint of politics. 253 p. 1983.
52 LYYTINEN, HEIKKI, Psychophysiology of anticipation and arousal. – Antisipaation ja viriämisen psykofysiologia. 190 p. Tiivistelmä 4 p. 1984.
53 KORKIAKANGAS, MIKKO, Lastenneuvolan terveydenhoitajan arvioinnit viisivuotiaiden lasten psyykkisestä kehityksestä. – The psychological assessment of five-year-old children by public health centres. 227 p. Summary 14 p. 1984.
54 HUMAN ACTION AND PERSONALITY. Essays in honour of Martti Takala. 272 p. 1984.
55 MATILAINEN, JOUKO, Maanpuolustus ja eduskunta. Eduskuntaryhmien kannanotot ja koheesio maanpuolustuskysymyksissä Paasikiven-Kekkosen kaudella 1945-1978. – Defence and Parliament. 264 p. Summary 7 p. 1984.
56 PUOLUE, VALTIO JA EDUSTUKSELLINEN DEMOKRATIA. Pekka Nyholmille omistettu juhlakirja. – Party, state and representational democracy. 145 p. Summary 2 p. 1986.
57 SIISIÄINEN, MARTTI, Intressit, yhdistyslaitos ja poliittisen järjestelmän vakaisuus. – Interests, voluntary assiociations and the stability of the political system. 367 p. Summary 6 p. 1986.
58 MATTLAR, CARL-ERIK, Finnish Rorschach responses in cross-cultural context: A normative study. 166 p. Tiivistelmä 2 p. 1986.
59 ÄYSTÖ, SEIJA, Neuropsychological aspects of simultaneous and successive cognitive processes. – Rinnakkaisen ja peräkkäisen informaation prosessoinnin neuropsykologiasta. 205 p. Tiivistelmä 10 p. 1987.
60 LINDH, RAIMO, Suggestiiviset mielikuvamallit käyttäytymisen muokkaajina tarkkailuluokkalaisilla. – Suggestive covert modeling as a method with disturbed pupils. 194 p. Summary 8 p. 1987.
61 KORHONEN, TAPANI, Behavioral and neural short-lateney and long-latency conditioned responses in the cat. – Välittömät ja viivästetyt hermostol-liset ja käyttäytymisvasteet klassisen ehdollista-misen aikana kissalla. 198 p. Tiivistelmä 4 p. 1987.
62 PAHKINEN, TUULA, Psykoterapian vaikutus minäkäsitykseen. Psykoterapian käynnistämän muutosprosessin vaikutus korkeakouluopiskelijoiden minäkäsitykseen. – Change in self-concept as a result of psychotherapy. 172 p. Summary 6 p. 1987.
63 KANGAS, ANITA, Keski-Suomen kulttuuritoimintakokeilu tutkimuksena ja politiikkana. – The action research on cultural- activities in the Province of Central Finland. 301 p. Summary 8 p. 1988.
64 HURME, HELENA, Child, mother and grandmother. Interegenerational interaction in

Finnish families. 187 p. 1988.

65 RASKU-PUTTONEN, HELENA, Communication between parents and children in experimental situations. – Vanhempien ja lasten kommunikointi strukturoiduissa tilanteissa. 71 p. Tiivistelmä 5 p. 1988.

66 TOSKALA, ANTERO, Kahvikuppineurootikkojen ja paniikkiagorafoobikkojen minäkuvat minäsysteemin rakenteina ja kognitiivisen oppimis-terapian perustana. – The self-images of coffee cup neurotics and panic agoraphobics as structures of a selfsystem and a basis for learning therapy. 261 p. Summary 6 p. 1988.

67 HAKKARAINEN, LIISA, Kuurojen yläasteen oppilaiden kirjoitetun kielen hallinta. - Mastery of written language by deaf pupils at the upper level of Comprehensive school. 281 p. Summary 11 p. 1988.

68 NÄTTI, JOUKO, Työmarkkinoiden lohkoutuminen. Segmentaatioteoriat, Suomen työmarkkinat ja yritysten työvoimastrategiat. - Segmentation theories, Finnish labour markets and the use of labour in retail trade. 189 p. Summary 10 p. 1989.

69 AALTOLA, JUHANI, Merkitys opettamisen ja oppimisen näkökulmasta Wittgensteinin myöhäisfilo-sofian ja pragmatismin valossa. - Meaning from the point of view of teaching and learning in the light of Wittgenstein's later philosophy and pragmatism. 249 p. Summary 6 p. 1989.

70 KINNUNEN, ULLA, Teacher stress over a school year. - Opettajan työstressi lukuvuoden aikana. 61 p. Tiivistelmä 3 p. 1989.

71 BREUER, HELMUT & RUOHO, KARI (Hrsg.), Pädagogisch-psychologische Prophylaxe bei 4-8 jährigen Kindern. - Pedagogis-psykologinen ennaltaehkäisy neljästä kahdeksaan vuoden iässä. 185 S. Tiivistelmä 1 S. 1989.

72 LUMMELAHTI, LEENA, Kuusivuotiaiden sopeutuminen päiväkotiin. Yksilöllistetty mallioppimis-ohjelma päiväkotiin heikosti sopeutuvien kuusivuotiaiden ohjauksessa sekä vanhempien kasvatuskäytännön yhtey-det lapsen sopeutumiseen ja minäkäsitykseen. - The adjustment of six-year-old children to day-care-centres. 224 p. Summary 9 p. 1990.

73 SALOVIITA, TIMO, Adaptive behaviour of institutionalized mentally retarded persons. - Laitoksessa asuvien kehitysvammaisten adaptiivinen käyttäytyminen. 167 p. Tiivistelmä 4 p. 1990.

74 PALONEN, KARI et SUBRA, LEENA (Eds.), Jean-Paul Sartre - un philosophe du politique. - Jean-Paul Sartre - poliittisuuden filosofi. 107 p. Tiivistelmä 2 p. 1990.

75 SINIVUO, JUHANI, Kuormitus ja voimavarat upseerin uralla. - Work load and resources in the career of officers. 373 p. Summary 4 p. 1990.

76 PÖLKKI, PIRJO, Self-concept and social skills of school beginners. Summary and discussion. - Koulutulokkaiden minäkäsitys ja sosiaaliset taidot. 100 p. Tiivistelmä 6 p. 1990.

77 HUTTUNEN, JOUKO, Isän merkitys pojan sosiaaliselle sukupuolelle. - Father's impact on son's gender role identity. 246 p. Summary 9 p.1990.

78 AHONEN, TIMO, Lasten motoriset koordinaatiohäiriöt. Kehitysneuropsykologinen seurantatutkimus. - Developmental coordination disorders in children. A developmental neuropsychological follow-up study. 188 p. Summary 9 p. 1990.

79 MURTO, KARI, Towards the well functioning community. The development of Anton Makarenko and Maxwell Jones' communities. - Kohti toimivaa yhteisöä. Anton Makarenkon ja Maxwell Jonesin yhteisöjen kehitys. 270 p. Tiivistelmä 5 p. Cp2`<, 5 c. 1991.

80 SEIKKULA, JAAKKO, Perheen ja sairaalan rajasysteemi potilaan sosiaalisessa verkostossa. - The family-hospital boundary system in the social network. 285 p. Summary 6 p. 1991.

81 ALANEN, ILKKA, Miten teoretisoida maa-talouden pientuotantoa. - On the conceptualization of petty production in agriculture. 360 p. Summary 9 p. 1991.

82 NIEMELÄ, EINO, Harjaantumisoppilas peruskoulun liikuntakasvatuksessa. - The trainable mentally retarded pupil in comprehensive school physical education. 210 p. Summary 7 p. 1991.

83 KARILA, IRMA, Lapsivuodeajan psyykkisten vaikeuksien ennakointi. Kognitiivinen malli. - Prediction of mental distress during puerperium. A cognitive model. 248 p. Summary 8 p. 1991.

84 HAAPASALO, JAANA, Psychopathy as a descriptive construct of personality among offenders. - Psykopatia rikoksentekijöiden persoonallisuutta kuvaavana konstruktiona. 73 p. Tiivistelmä 3 p. 1992.

85 ARNKIL, ERIK, Sosiaalityön rajasysteemit ja kehitysvyöhyke. - The systems of boundary and the developmental zone of social work. 65 p. Summary 4 p. 1992.

86 NIKKI, MAIJA-LIISA, Suomalaisen koulutusjärjestelmän kielikoulutus ja sen relevanssi. Osa II. - Foreign language education in the Finnish educational system and its relevance. Part 2. 204 p. Summary 5 p. 1992.

87 NIKKI, MAIJA-LIISA, The implementation of the Finnish national plan for foreign language teaching. - Valtakunnallisen kielenopetuksen yleissuunnitelman toimeenpano. 52 p. Yhteenveto 2 p. 1992.

88 VASKILAMPI, TUULA, Vaihtoehtoinen terveydenhuolto hyvinvointivaltion terveysmarkkinoilla. - Alternative medicine on the health market of welfare state. 120 p. Summary 8 p. 1992.

89 LAAKSO, KIRSTI, Kouluvaikeuksien ennustaminen. Käyttäytymishäiriöt ja kielelliset vaikeudet peruskoulun alku- ja päättövaiheessa. -

Prediction of difficulties in school. 145 p. Summary 4 p. 1992.

90 SUUTARINEN, SAKARI, Herbartilainen pedagoginen uudistus Suomen kansakoulussa vuosisadan alussa (1900-1935). - Die Herbart'sche pädagogische Reform in den finnischen Volksschulen zu Beginn dieses Jahrhunderts (1900-1935). 273 p. Zusammenfassung 5 S. 1992.

91 AITTOLA, TAPIO, Uuden opiskelijatyypin synty. Opiskelijoiden elämänvaiheet ja tieteenalaspesifien habitusten muovautuminen 1980-luvun yliopistossa. - Origins of the new student type. 162 p. Summary 4 p. 1992

92 KORHONEN, PEKKA, The origin of the idea of the Pacific free trade area. - Tyynenmeren vapaakauppa-alueen idean muotoutuminen. - Taiheiyoo jiyuu booeki chi-iki koosoo no seisei. 220 p. Yhteenveto 3 p. Yooyaku 2 p. 1992.

93 KERÄNEN, JYRKI, Avohoitoon ja sairaalahoitoon valikoituminen perhekeskeisessä psykiatrisessa hoitojärjestelmässä. - The choice between outpatient and inpatient treatment in a family centred psychiatric treatment system. 194 p. Summary 6 p. 1992.

94 WAHLSTRÖM, JARL, Merkitysten muodostuminen ja muuttuminen perheterapeuttisessa keskustelussa. Diskurssianalyyttinen tutkimus. - Semantic change in family therapy. 195 p. Summary 5 p. 1992.

95 RAHEEM, KOLAWOLE, Problems of social security and development in a developing country. A study of the indigenous systems and the colonial influence on the conventional schemes in Nigeria. - Sosiaaliturvan ja kehityksen ongelmia kehitysmaassa. 272 p. Yhteenveto 3 p. 1993.

96 LAINE, TIMO, Aistisuus, kehollisuus ja dialogisuus. Ludwig Feuerbachin filosofian lähtökohtia ja niiden kehitysnäkymiä 1900-luvun antropologisesti suuntautuneessa fenomenologiassa. - Sensuousnes, bodiliness and dialogue. Basic principles in Ludwig Feuerbach's philosophy and their development in the anthropologically oriented phenomenology of the 1900's. 151 p. Zusammenfassung 5 S. 1993.

97 PENTTONEN, MARKKU, Classically conditioned lateralized head movements and bilaterally recorded cingulate cortex responses in cats. - Klassisesti ehdollistetut sivuttaiset päänliikkeet ja molemminpuoliset aivojen pihtipoimun vasteet kissalla. 74 p. Yhteenveto 3 p. 1993.

98 KORO, JUKKA, Aikuinen oman oppimisensa ohjaajana. Itseohjautuvuus, sen kehittyminen ja yhteys opetustuloksiin kasvatustieteen avoimen korkeakouluopetuksen monimuotokokeilussa. - Adults as managers of their own learning. Self-directiveness, its development and connection with the gognitive learning results of an experiment on distance education for the teaching of educational science. 238 p. Summary 7 p. 1993.

99 LAIHIALA-KANKAINEN, SIRKKA, Formaalinen ja funktionaalinen traditio kieltenopetuksessa. Kieltenopetuksen oppihistoriallinen tausta antiikista valistukseen. - Formal and functional traditions in language teaching. The theory -historical background of language teaching from the classical period to the age of reason. 288 p. Summary 6 p. 1993.

100 MÄKINEN, TERTTU, Yksilön varhaiskehitys koulunkäynnin perustana. - Early development as a foundation for school achievement. 273 p. Summary 16 p. 1993.

101 KOTKAVIRTA, JUSSI, Practical philosophy and modernity. A study on the formation of Hegel's thought. - Käytännöllinen filosofia ja modernisuus. Tutkielma Hegelin ajattelun muotoutumisesta. 238 p. Zusammenfassung 3 S. Yhteenveto 3 p. 1993.

102 EISENHARDT, PETER L., PALONEN, KARI, SUBRA, LEENA, ZIMMERMANN RAINER E.(Eds.), Modern concepts of existentialism. Essays on Sartrean problems in philosophy, political theory and aesthetics. 168 p. Tiivistelmä 2 p. 1993.

103 KERÄNEN, MARJA, Modern political science and gender. A debate between the deaf and the mute. - Moderni valtio-oppi ja nainen. Mykkien ja kuurojen välinen keskustelu. 252 p. Tiivistelmä 4 p. 1993.

104 MATIKAINEN,TUULA, Työtaitojenkehittyminen erityisammattikouluvaiheen aikana. - Development of working skills in special vocational school. 205 p. Summary 4 p. 1994.

105 PIHLAJARINNE, MARJA-LEENA, Nuoren sairastuminen skitsofreeniseen häiriöön. Perheterapeuttinen tarkastelutapa. - The onset of schizophrenic disorder at young age. Family therapeutic study. 174 p. Summary 5 p. 1994.

106 KUUSINEN, KIRSTI-LIISA, Psyykkinen itsesäätely itsehoidon perustana. Itsehoito I-tyypin diabetesta sairastavilla aikuisilla. - Self-care based on self-regulation. Self-care in adult type I diabetics. 260 p. Summary 17 p. 1994.

107 MENGISTU, LEGESSE GEBRESELLASSIE, Psychological classification of students with and without handicaps. A tests of Holland's theory in Ethiopia. 209 p. 1994.

108 LESKINEN, MARKKU (ED.), Family in focus. New perspectives on early childhood special education. 158 p. 1994.

109 LESKINEN, MARKKU, Parents' causal attributions and adjustment to their child's disability. - Vanhempien syytulkinnat ja sopeutuminen lapsensa vammaisuuteen. 104 p. Tiivistelmä 1 p. 1994.

110 MATTHIES, AILA-LEENA, Epävirallisen sektorin ja hyvinvointivaltion suhteiden modernisoituminen. - The informal sector and the welfare state. Contemporary relationships. 63 p. Summary 12 p. 1994.

111 AITTOLA, HELENA, Tutkimustyön ohjaus ja ohjaussuhteet tieteellisessä jatkokoulutuksessa. - Mentoring in postgraduate education. 285 p. Summary 5 p. 1995.

112 LINDÉN, MIRJA, Muuttuva syövän kuva ja kokeminen. Potilaiden ja ammattilaisten tulkintoja. - The changing image and experience

of cancer. Accounts given by patients and professionals. 234 p. Summary 5 p. 1995.

113 VÄLIMAA, JUSSI, Higher education cultural approach. - Korkeakoulututkimuksen kulttuurinäkökulma. 94 p. Yhteenveto 5 p. 1995.

114 KAIPIO, KALEVI, Yhteisöllisyys kasvatuksessa. yhteisökasvatuksen teoreettinen analyysi ja käytäntöön soveltaminen. - The community as an educator. Theoretical analysis and practice of community education. 250 p. Summary 3 p. 1995.

115 HÄNNIKÄINEN, MARITTA, Nukesta vauvaksi ja lapsesta lääkäriksi. Roolileikkiin siirtymisen tarkastelua piagetilaisesta ja kulttuurihistoriallisen toiminnan teorian näkökulmasta. 73 p. Summary 6 p. 1995.

116 IKONEN, OIVA. Adaptiivinen opetus. Oppimistutkimus harjaantumiskoulun opetussuunnitelma- ja seurantajärjestelmän kehittämisen tukena. - The adaptive teaching. 90 p. Summary 5 p. 1995.

117 SUUTAMA, TIMO, Coping with life events in old age. - Elämän muutos- ja ongelmatilanteiden käsittely iäkkäillä ihmisillä. 110 p. Yhteenveto 3 p. 1995.

118 DERSEH, TIBEBU BOGALE, Meanings Attached to Disability, Attitudes towards Disabled People, and Attitudes towards Integration. 150 p. 1995.

119 SAHLBERG, PASI, Kuka auttaisi opettajaa. Postmoderni näkökulma opetuksen muu-tokseen yhden kehittämisprojektin valossa. - Who would help a teacher. A post-modern perspective on change in teaching in light of a school improvement project. 255 p. Summary 4 p. 1996.

120 UHINKI, AILO, Distress of unemployed jobseekers described by the Zulliger Test using the Comprehensive System. - Työttömien työntekijöiden ahdinko kuvattuna Comprehensive Systemin mukaisesti käytetyillä Zulligerin testillä. 61 p. Yhteenveto 3p. 1996.

121 ANTIKAINEN, RISTO, Clinical course, outcome and follow-up of inpatients with borderline level disorders. - Rajatilapotilaiden osastohoidon tuloksellisuus kolmen vuoden seurantatutkimuksessa Kys:n psykiatrian klinikassa. 102 p. Yhteenveto 4 p. 1996.

122 RUUSUVIRTA, TIMO, Brain responses to pitch changes in an acoustic environment in cats and rabbits. - Aivovasteet kuuloärsykemuutoksiin kissoilla ja kaneilla. 45 p. Yhteenveto 2 p. 1996.

123 VISTI, ANNALIISA, Työyhteisön ja työn tuottavuuden kehitys organisaation transformaatiossa. - Dovelopment of the work communi-ty and changes in the productivity of work during an organizational transformation process. 201 p. Summary 12 p. 1996.

124 SALLINEN, MIKAEL, Event-ralated brain potentials to changes in the acustic environment buring sleep and sleepiness. - Aivojen herätevasteet muutoksiin kuuloärsykesarjassa unen ja uneliaisuuden aikana. 104 p. Yhteenveto 3 p. 1997.

125 LAMMINMÄKI, TUIJA, Efficasy of a multi-faceted treatment for children with learning difficulties. - Oppimisvaikeuksien neurokognitiivisen ryhmäkuntoutuksen tuloksellisuus ja siihen vaikuttavia tekijöitä. 56 p. Yhteenveto 2 p. 1997.

126 LUTTINEN, JAANA, Fragmentoituva kulttuuripolitiikka. Paikallisen kulttuuripolitiikan tulkintakehykset Ylä-Savossa. - Fragmenting-cultural policy. The interpretative frames of local cultural politics in Ylä-Savo. 178 p. Summary 9 p. 1997.

127 MARTTUNEN, MIIKA, Studying argumentation in higher education by electronic mail. - Argumentointia yliopisto-opinnoissa sähköpostilla. 60 p. (164 p.) Yhteenveto 3 p. 1997.

128 JAAKKOLA, HANNA, Kielitieto kielitaitoon pyrittäessä. Vieraiden kielten opettajien käsityksiä kieliopin oppimisesta ja opetta-misesta. - Language knowledge and language ability. Teachers´ conceptions of the role of grammar in foreign language learning and teaching. 227 p. Summary 7 p. 1997.

129 SUBRA, LEENA, A portrait of the political agent in Jean-Paul Sartre. Views on playing, acting, temporality and subjectivity. - Poliittisen toimijan muotokuva Jean-Paul Sartrella. Näkymiä pelaamiseen, toimintaan, ajallisuuteen ja subjektiivisuuteen. 248 p. Yhteenveto 2 p. 1997.

130 HAARAKANGAS, KAUKO, Hoitokokouksen äänet. Dialoginen analyysi perhekeskeisen psykiatrisen hoitoprosessin hoitokokous-keskusteluista työryhmän toiminnan näkökulmasta. - The voices in treatment meeting. A dialogical analysis of the treatment meeting conversations in family-centred psychiatric treatment process in regard to the team activity. 136 p. Summary 8 p. 1997.

131 MATINHEIKKI-KOKKO, KAIJA, Challenges of working in a cross-cultural environment. Principles and practice of refugee settlement in Finland. - Kulttuurienvälisen työn haasteet. Periaatteet ja käytäntö maahanmuuttajien hyvinvoinnin turvaamiseksi Suomessa. 130 p. Yhteenveto 3 p. 1997.

132 KIVINIEMI, KARI, Opettajuuden oppimisesta harjoittelun harhautuksiin. Aikuisopiskelijoiden kokemuksia opetusharjoittelusta ja sen ohjauksesta luokanopettajakoulutuksessa. - From the learning of teacherhood to the fabrications of practice. Adult students´ experiences of teaching practice and its supervision in class teacher education. 267 p. Summary 8 p. 1997.

133 KANTOLA, JOUKO, Cygnaeuksen jäljillä käsityönopetuksesta teknologiseen kasvatukseen. - In the footsteps of Cygnaeus. From handicraft teaching to technological education. 211 p. Summary 7 p. 1997.

134 KAARTINEN, JUKKA, Nocturnal body movements

and sleep quality. - Yölliset kehon liikkeet ja unen laatu. 85 p. Yhteenveto 3 p. 1997.

135 MUSTONEN, ANU, Media violence and its audience. - Mediaväkivalta ja sen yleisö. 44 p. (131 p.). Yhteenveto 2 p. 1997.

136 PERTTULA, JUHA, The experienced life-fabrics of young men. - Nuorten miesten koettu elämänkudelma. 218 p. Yhteenveto 3 p. 1998.

137 TIKKANEN, TARJA, Learning and education of older workers. Lifelong learning at the margin. - Ikääntyvän työväestön oppiminen ja koulutus. Elinikäisen oppimisen marginaalissa. 83 p. (154 p.). Yhteenveto 6 p. 1998.

138 LEINONEN, MARKKU, Johannes Gezelius vanhempi luonnonmukaisen pedagogiikan soveltajana. Comeniuslainen tulkinta. - Johannes Gezelius the elder as implementer of natural padagogy. A Comenian interpretation. 237 p. Summary 7 p. 1998.

139 KALLIO, EEVA, Training of students' scientific reasoning skills. - Korkeakouluopiskelijoiden tieteellisen ajattelun kehittäminen. 90 p. Yhteenveto 1 p. 1998.

140 NIEMI-VÄKEVÄINEN, LEENA, Koulutusjaksot ja elämänpolitiikka. Kouluttautuminen yksilöllistymisen ja yhteisöllisyyden risteysasemana. - Sequences of vocational education as life politics. Perspectives of invidualization and communality. 210 p. Summary 6 p. 1998.

141 PARIKKA, MATTI, Teknologiakompetenssi. Teknologiakasvatuksen uudistamishaasteita peruskoulussa ja lukiossa. - Technological competence. Challenges of reforming technology education in the Finnish comprehensive and upper secondary school. 207 p. Summary 13 p. 1998.

142 TA OPETTAJAN APUNA - EDUCATIONAL TA FOR TEACHER. Professori Pirkko Liikaselle omistettu juhlakirja. 207 p. Tiivistelmä - Abstract 14 p. 1998.

143 YLÖNEN, HILKKA, Taikahattu ja hopeakengät - sadun maailmaa. Lapsi päiväkodissa sadun kuulijana, näkijänä ja kokijana. - The world of the colden cap and silver shoes. How kinder garten children listen to, view, and experience fairy tales. 189 p. Summary 8 p. 1998.

144 MOILANEN, PENTTI, Opettajan toiminnan perusteiden tulkinta ja tulkinnan totuudellisuuden arviointi. - Interpreting reasons for teachers' action and the verifying the interpretations. 226 p. Summary 3p. 1998.

145 VAURIO, LEENA, Lexical inferencing in reading in english on the secondary level. - Sanapäättely englanninkielistä tekstiä luettaessa lukioasteella. 147 p. Yhteenveto 3 p. 1998.

146 ETELÄPELTO, ANNELI, The development of expertise in information systems design. - Asiantuntijuuden kehittyminen tietojärjestelmien suunnittelussa. 132 p. (221p.). Yhteenveto 12 p. 1998.

147 PIRHONEN, ANTTI, Redundancy as a criterion for multimodal user-interfaces. - Käsitteistö luo näkökulman käyttöliittymäanalyysiin. 141 p. Yhteenveto 3 p. 1998.

148 RÖNKÄ, ANNA, The accumulation of problems of social functioning: outer, inner, and behavioral strands. - Sosiaalinen selviytyminen lapsuudesta aikuisuuteen: ongelmien kasautumisen kolme väylää. 44 p. (129 p.) Yhteenveto 3 p. 1999.

149 NAUKKARINEN, AIMO, Tasapainoilua kurinalaisuuden ja tarkoituksenmukaisuuden välillä. Oppilaiden ei-toivottuun käyttäytymiseen liittyvän ongelmanratkaisun kehittäminen yhden peruskoulun yläasteen tarkastelun pohjalta. - Balancing rigor and relevance. Developing problem-solving associated with students' challenging behavior in the light of a study of an upper comprehensive school. 296 p. Summary 5 p. 1999.

150 HOLMA, JUHA, The search for a narrative. Investigating acute psychosis and the need-adapted treatment model from the narrative viewpoint. - Narratiivinen lähestymistapa akuuttiin psykoosiin ja tarpeenmukaisen hoidon malliin. 52 p. (105 p.) Yhteenveto 3 p. 1999.

151 LEPPÄNEN, PAAVO H.T., Brain responses to changes in tone and speech stimuli in infants with and without a risk for familial dyslexia. - Aivovasteet ääni- ja puheärsykkeiden muutoksiin vauvoilla, joilla on riski suvussa esiintyvään dysleksiaan ja vauvoilla ilman tätä riskiä. 100 p. (197 p.) Yhteenveto 4 p. 1999.

152 SUOMALA, JYRKI, Students' problem solving in the LEGO/Logo learning environment. - Oppilaiden ongelmanratkaisu LEGO/Logo oppimisympäristössä. 146 p. Yhteenveto 3 p. 1999.

153 HUTTUNEN, RAUNO, Opettamisen filosofia ja kritiikki. - Philosophy, teaching, and critique. Towards a critical theory of the philosophy of education. 201 p. Summary 3p. 1999.

154 KAREKIVI, LEENA, Ehkä en kokeilisikaan, jos .... Tutkimus ylivieskalaisten nuorten tupakoinnista ja päihteidenkäytöstä ja niihin liittyvästä terveyskasvatuksesta vuosina 1989-1998. - Maybe I wouldn´t even experiment if .... A study on youth smoking and use of intoxicants in Ylivieska and related health education in 1989-1998. 256 p. Summary 4 p. 1999.

155 LAAKSO, MARJA-LEENA, Prelinguistic skills and early interactional context as predictors of children´s language development. - Esikielellinen kommunikaatio ja sen vuorovaikutuksellinen konteksti lapsen kielen kehityksen ennustajana. 127 p. Yhteenveto 2 p. 1999.

156 MAUNO, SAIJA, Job insecurity as a psycho-social job stressor in the context of the work-family interface. - Työn epävarmuus työn psykososiaalisena stressitekijänä työn ja perheen vuorovaikutuksen kontekstissa. 59 p. (147 p.) Yhteenveto 3 p. 1999.

157 MÄENSIVU KIRSTI, Opettaja määrittelijänä, oppilas määriteltävänä. Sanallisen oppilaan arvioinnin sisällön analyysi. - The teacher as a determiner - the pupil to be determined -

content analysis of the written school reports. 215 p. Summary 5 p. 1999.

158 FELDT, TARU, Sense of coherence. Structure, stability and health promoting role in working life. - Koherenssin rakenne, pysyvyys ja terveyttä edistävä merkitys työelämässä. 60 p. (150 p.) Yhteenveto 5 p. 2000.

159 MÄNTY, TARJA, Ammatillisista erityisoppilaitoksista elämään. - Life after vocational special education. 235 p. Summary 3 p. 2000.

160 SARJA, ANNELI, Dialogioppiminen pienryhmässä. Opettajaksi opiskelevien harjoitteluprosessi terveydenhuollon opettajankoulutuksessa. - Dialogic learning in a small group. The process of student teachers´ teaching practice during health care education. 165 p. Summary 7 p. 2000.

161 JÄRVINEN, ANITTA, Taitajat iänikuiset. - Kotkan ammattilukiosta valmiuksia elämään, työelämään ja jatko-opintoihin. - Age-old craftmasters -Kotka vocational senior secondary school - giving skills for life, work and further studies. 224 p. Summary 2 p. 2000.

162 KONTIO, MARJA-LIISA, Laitoksessa asuvan kehitysvammaisen vanhuksen haastava käyttäytyminen ja hoitajan käyttämiä vaikutuskeinoja. - Challenging behaviour of institutionalized mentally retarded elderly people and measures taken by nurses to control it. 175 p. Summary 3 p. 2000.

163 KILPELÄINEN, ARJA, Naiset paikkaansa etsimässä. Aikuiskoulutus naisen elämänkulun rakentajana. - Adult education as determinant of woman's life-course. 155 p. Summary 6 p. 2000.

164 RIITESUO, ANNIKKI, A preterm child grows. Focus on speech and language during the first two years. - Keskonen kasvaa: puheen ja kielen kehitys kahtena ensimmäisenä elinvuotena. 119 p. Tiivistelmä 2 p. 2000.

165 TAURIAINEN, LEENA, Kohti yhteistä laatua. - Henkilökunnan, vanhempien ja lasten laatukäsitykset päiväkodin integroidussa erityisryhmässä. - Towards common quality: staff's, parents' and children's conseptions of quality in an integration group at a daycare center. 256 p. Summary 6 p. 2000.

166 RAUDASKOSKI, LEENA, Ammattikorkeakoulun toimintaperustaa etsimässä. Toimilupahakemusten sisällönanalyyttinen tarkastelu. - In search for the founding principles of the Finnishpolytechnic institutes. A content analysis of the licence applications. 193 p. Summary 4 p. 2000.

167 TAKKINEN, SANNA, Meaning in life and its relation to functioning in old age. - Elämän tarkoituksellisuus ja sen yhteydet toimintakykyyn vanhuudessa. 51 p. (130 p.) Yhteenveto 2 p. 2000.

168 LAUNONEN, LEEVI, Eettinen kasvatusajattelu suomalaisen koulun pedagogisissa teksteissä 1860-luvulta 1990-luvulle. - Ethical thinking in Finnish school's pedagogical texts from the 1860s to the 1990s. 366 p. Summary 3 p. 2000.

169 KUORELAHTI, MATTI, Sopeutumattomien luokkamuotoisen erityisopetuksen tuloksellisuus. - The educational outcomes of special classes for emotionally/ behaviorally disordered children and youth. 176 p. Summary 2p. 2000.

170 KURUNMÄKI, JUSSI, Representation, nation and time. The political rhetoric of the 1866 parliamentary reform in Sweden. - Edustus, kansakunta ja aika. Poliittinen retoriikka Ruotsin vuoden 1866 valtiopäiväreformissa. 253 p. Tiivistelmä 4 p. 2000.

171 RASINEN, AKI, Developing technology education. In search of curriculum elements for Finnish general education schools. 158 p. Yhteenveto 2 p. 2000.

172 SUNDHOLM, LARS, Itseohjautuvuus organisaatiomuutoksessa. - Self-determination in organisational change. 180 p. Summary 15 p. 2000.

173 AHONNISKA-ASSA, JAANA, Analyzing change in repeated neuropsychological assessment. 68 p. (124 p.) Yhteenveto 2 p. 2000.

174 HOFFRÉN, JARI, Demokraattinen eetos – rajoista mahdollisuuksiin. - The democratic ethos. From limits to possibilities? 217 p. Summary 2 p. 2000.

175 HEIKKINEN, HANNU L. T., Toimintatutkimus, tarinat ja opettajaksi tulemisen taito. Narratiivisen identiteettityön kehittäminen opettajankoulutuksessa toimintatutkimuksen avulla. - Action research, narratives and the art of becoming a teacher. Developing narrative identity work in teacher education through action research. 237 p. Summary 4 p. 2001.

176 VUORENMAA, MARITTA, Ikkunoita arvioin- nin tuolle puolen. Uusia avauksia suomalaiseen koulutusta koskevaan evaluaatiokeskusteluun. - Views across assessment: New openings into the evaluation discussion on Finnish education. 266 p. Summary 4 p. 2001.

177 LITMANEN, TAPIO, The struggle over risk. The spatial, temporal, and cultural dimensions of protest against nuclear technology. - Kamppailu riskistä. Ydinteknologian vastaisen protestin tilalliset, ajalliset ja kulttuuriset ulottuvuudet. 72 p. (153 p.) Yhteenveto 9 p. 2001.

178 AUNOLA, KAISA, Children's and adolescents' achievement strategies, school adjustment, and family environment. - Lasten ja nuorten suoritusstrategiat koulu- ja perheympäristöissä. 51 p. (153 p.) Yhteenveto 2 p. 2001.

179 OKSANEN, ELINA , Arvioinnin kehittäminen erityisopetuksessa. Diagnosoinnista oppimisen ohjaukseen laadullisena tapaustutkimuksena. - Developing assessment practices in special education. From a static approach to

dynamic approach applying qualitative case. 182 p. Summary 5 p. 2001.

180 VIITTALA, KAISU, "Kyllä se tommosellaki lapsella on kovempi urakka". Sikiöaikana alkoholille altistuneiden huostaanotettujen lasten elämäntilanne, riskiprosessit ja suojaavat prosessit. - "It's harder for that kind of child to get along". The life situation of the children exposed to alcohol in utero and taken care of by society, their risk and protective processes. 316 p. Summary 4 p. 2001.

181 HANSSON, LEENI, Networks matter. The role of informal social networks in the period of socio-economic reforms of the 1990s in Estonia. - Verkostoilla on merkitystä: infor-maalisten sosiaalisten verkostojen asema Virossa 1990-luvun sosio-ekonomisten muutosten aikana. 194 p. Yhteenveto 3 p. 2001.

182 BÖÖK, MARJA LEENA, Vanhemmuus ja vanhemmuuden diskurssit työttömyystilanteessa . - Parenthood and parenting discourses in a situation of unemployment. 157 p. Summary 5 p. 2001.

183 KOKKO, KATJA, Antecedents and consequences of long-term unemployment. - Pitkäaikaistyöttömyyden ennakoijia ja seurauksia. 53 p. (115 p.) Tiivistelmä 3 p. 2001.

184 KOKKONEN, MARJA, Emotion regulation and physical health in adulthood: A longitudinal, personality-oriented approach. - Aikuisiän tunteiden säätely ja fyysinen terveys: pitkittäistutkimuksellinen ja persoonallisuuskeskeinen lähestymistapa. 52 p. (137 p.) Tiivistelmä 3 p. 2001.

185 MÄNNIKKÖ, KAISA, Adult attachment styles: A Person-oriented approach. - Aikuisten kiintymystyylit. 142 p. Yhteenveto 5 p. 2001.

186 KATVALA, SATU, Missä äiti on? Äitejä ja äitiyden uskomuksia sukupolvien saatossa. - Where's mother? Mothers and maternal beliefs over generations. 126 p. Summary 3 p. 2001.

187 KIISKINEN, ANNA-LIISA, Ympäristöhallinto vastuullisen elämäntavan edistäjänä. - Environmental administration as promoter of responsible living. 229 p. Summary 8 p. 2001.

188 SIMOLA, AHTI, Työterveyshuolto-organisaation toiminta, sen henkilöstön henkinen hyvinvointi ja toiminnan tuloksellisuus. - Functioning of an occupational health service organization and its relationship to the mental well-being of its personnel, client satisfaction, and economic profitability. 192 p. Summary 12 p. 2001.

189 VESTERINEN, PIRKKO, Projektiopiskelu- ja oppiminen ammattikorkeakoulussa. - Project - based studying and learning in the polytechnic. 257 p. Summary 5 p. 2001.

190 KEMPPAINEN, JAANA, Kotikasvatus kolmessa sukupolvessa. - Childrearing in three generations. 183 p. Summary 3 p. 2001.

191 HOHENTHAL-ANTIN LEONIE, Luvan ottaminen – Ikäihmiset teatterin tekijöinä. - Taking permission– Elderly people as theatre makers. 183 p. Summary 5 p. 2001.

192 KAKKORI, LEENA, Heideggerin aukeama. Tutkimuksia totuudesta ja taiteesta Martin Heideggerin avaamassa horisontissa. - Heidegger's clearing. Studies on truth and art in the horizon opened by Martin Heidegger. 156 p. Summary 2 p. 2001.

193 NÄRHI, VESA, The use of clinical neuropsychological data in learning disability research. - Asiakastyön yhteydessä kerätyn neuropsykologisen aineiston käyttö oppimisvaikeustutkimuksessa. 103 p. Yhteenveto 2 p. 2002.

194 SUOMI, ASTA, Ammattia etsimässä. Aikuisopiskelijat kertovat sosiaaliohjaajakoulutuksesta ja narratiivisen pätevyyden kehittymisestä. - Searching for professional identity. Adult students' narratives on the education of a social welfare supervisor and the development of narrative competence. 183 p. Summary 2 p. 2002.

195 PERKKILÄ, PÄIVI, Opettajien matematiikkauskomukset ja matematiikan oppikirjan merkitys alkuopetuksessa. 212 p. - Teacher's mathematics beliefs and meaning of mathematics textbooks in the first and the second grade in primary school. Summary 2 p. 2002.

196 VESTERINEN, MARJA-LIISA, Ammatillinen harjoittelu osana asiantuntijuuden kehittymistä ammattikorkeakoulussa. - Promoting professional expertise by developing practical learning at the polytechnic. 261 p. Summary 5 p. 2002.

197 POHJANEN, JORMA, Mitä kello on? Kello modernissa yhteiskunnassa ja sen sosiologisessa teoriassa. - What's the time. Clock on modern society and in it's sociological theory. 226 p. Summary 3 p. 2002.

198 RANTALA, ANJA, Perhekeskeisyys – puhetta vai todellisuutta? Työntekijöiden käsitykset yhteistyöstä erityistä tukea tarvitsevan lapsen perheen kanssa. - Family-centeredness rhetoric or reality? Summary 3 p. 2002.

199 VALANNE, EIJA, "Meidän lapsi on arvokas" Henkilökohtainen opetuksen järjestämistä koskeva suunnitelma (HOJKS) kunnallisessa erityiskoulussa. - "Our child is precious" - The individual educational plan in the context of the special school. 219 p. Yhteenveto 2 p. 2002.

200 HOLOPAINEN, LEENA, Development in reading and reading related skills; a follow-up study from pre-school to the fourth grade. 57 p. (138 p.) Yhteenveto 3 p. 2002.

201 HEIKKINEN, HANNU, Draaman maailmat oppimisalueina. Draamakasvatuksen vakava leikillisyys. - Drama worlds as learning areas - the serious playfulness os drama education. 164 p. Summary 5 p. 2002.

202 HYTÖNEN, TUIJA, Exploring the practice of human resource development as a field of professional expertise. - Henkilöstön

kehittämistyön asiantuntijuuden rakentuminen. 137 p. (300 p.) Yhteenveto 10 p. 2002.

203 RIPATTI, MIKKO, Arvid Järnefeldt kasvatusajattelijana. 246 p. Summary 4 p. 2002.

204 VIRMASALO, ILKKA, Perhe, työttömyys ja lama. - Families, unemployment and the economic depression. 121 p. Summary 2 p. 2002.

205 WIKGREN, JAN, Diffuse and discrete associations in aversive classical conditioning. - Täsmälliset ja laaja-alaiset ehdollistumat klassisessa aversiivisessa ehdollistumisessa. 40 p. (81 p.) Yhteenveto 2 p. 2002.

206 JOKIVUORI, PERTTI, Sitoutuminen työorganisaatioon ja ammattijärjestöön. - Kilpailevia vai täydentäviä?- Commitment to organisation and trade union. Competing or complementary? 132 p. Summary 8 p. 2002.

207 GONZÁLEZ VEGA, NARCISO, Factors affecting simulator-training effectiveness. 162 p. Yhteenveto 1 p. 2002.

208 SALO, KARI, Teacher Stress as a Longitudinal Process - Opettajien stressiprosessi. 67 p. Yhteenveto 2 p. 2002.

209 VAUHKONEN, JOUNI, A rhetoric of reduction. Bertrand de Jouvenel's pure theory of politics as persuasion. 156 p. Tiivistelmä 2 p. 2002.

210 KONTONIEMI, MARITA, "Milloin sinä otat itseäsi niskasta kiinni?" Opettajien kokemuksia alisuoriutujista. - "When will you pull your socks up?" Teachers´ experiences of underachievers. 218 p. Summary 3 p. 2003.

211 SAUKKONEN, SAKARI, Koulu ja yksilöllisyys; Jännitteitä, haasteita ja mahdollisuuksia. - School and individuality: Tensions, challenges and possibilities. 125 p. Summary 3 p. 2003.

212 VILJAMAA, MARJA-LEENA, Neuvola tänään ja huomenna. Vanhemmuuden tukeminen, perhekeskeisyys ja vertaistuki. - Child and maternity welfare clinics today and tomorrow. Supporting parenthood, family-centered sevices and peer groups. 141 p. Summary 4 p. 2003.

213 REMES, LIISA, Yrittäjyyskasvatuksen kolme diskurssia. - Three discourses in entrepreneurial learning. 204 p. Summary 2 p. 2003.

214 KARJALA, KALLE, Neulanreiästä panoraamaksi. Ruotsin kulttuurikuvan ainekset eräissä keskikoulun ja B-ruotsin vuosina 1961–2002 painetuissa oppikirjoissa. - From pinhole to panorama – The culture of Sweden presented in some middle and comprehensive school textbooks printed between 1961 and 2002. 308 p. Summary 2 p. 2003.

215 LALLUKKA, KIRSI, Lapsuusikä ja ikä lapsuudessa. Tutkimus 6–12 -vuotiaiden sosiokulttuurisesta ikätiedosta. - Childhood age and age in childhood. A study on the sociocultural knowledge of age. 234 p. Summary 2 p. 2003.

216 PUUKARI, SAULI, Video Programmes as Learning Tools. Teaching the Gas Laws and Behaviour of Gases in Finnish and Canadian Senior High Schools. 361 p. Yhteenveto 6 p. 2003.

217 LOISA, RAIJA-LEENA, The polysemous contemporary concept. The rhetoric of the cultural industry. - Monimerkityksinen nykykäsite. Kulttuuriteollisuuden retoriikka. 244 p. Yhteenveto 2 p. 2003.

218 HOLOPAINEN, ESKO, Kuullun ja luetun tekstin ymmärtämisstrategiat ja -vaikeudet peruskoulun kolmannella ja yhdeksännellä luokalla. - Strategies for listening and reading comprehension and problematic listening and reading comprehension of the text during the third and ninth grades of primary school. 135 p. Summary 3 p. 2003.

219 PENTTINEN, SEPPO, Lähtökohdat liikuntaa opettavaksi luokanopettajaksi. Nuoruuden kasvuympäristöt ja opettajankoulutus opettajuuden kehitystekijöinä.- Starting points for a primary school physical education teacher. The growth environment of adolescence and teacher education as developmental factors of teachership. 201 p. Summary 10 p. 2003.

220 IKÄHEIMO, HEIKKI, Tunnustus, subjektiviteetti ja inhimillinen elämänmuoto: Tutkimuksia Hegelistä ja persoonien välisistä tunnustussuhteista. - Recognition, subjectivity and the human life form: studies on Hegel and interpersonal recognition. 191 p. Summary 3 p. 2003.

221 ASUNTA, TUULA, Knowledge of environmental issues. Where pupils acquire information and how it affects their attitudes, opinions, and laboratory behaviour - Ympäristöasioita koskeva tieto. Mistä oppilaat saavat informaatiota ja miten se vaikuttaa heidän asenteisiinsa, mielipiteisiinsä ja laboratoriokäyttäytymiseensä. 159 p. Yhteenveto 4 p. 2003.

222 KUJALA, ERKKI, Sodan pojat. Sodanaikaisten pikkupoikien lapsuuskokemuksia isyyden näkökulmasta - The sons of war. 229 p. Summary 2 p. 2003.

223 JUSSI KURUNMÄKI & KARI PALOINEN (Hg./eds.) Zeit, Geschicte und Politik. Time, history and politics. *Zum achtzigsten Geburtstag von Reinhart Koselleck*. 310 p. 2003.

224 LAITINEN, ARTO, Strong evaluation without sources. On Charles Taylor's philosophical anthropology and cultural moral realism. - Vahvoja arvostuksia ilman lähteitä. Charles Taylorin filosofisesta antropologiasta ja kulturalistisesta moraalirealismista. 358 p. Yhteenveto 4 p. 2003.

225 GUTTORM, TOMI K. Newborn brain responses measuring feature and change detection and predicting later language development in children with and without familial risk for dyslexia. - Vastasyntyneiden aivovasteet puheäänteiden ja niiden muutosten havaitsemisessa sekä myöhemmän kielen kehityksen ennustamisessa dysleksia-riskilapsilla. 81 p. (161 p.) Yhteenveto 3 p. 2003.

226 NAKARI, MAIJA-LIISA, Työilmapiiri, työntekijöiden hyvinvointi ja muutoksen mahdollisuus - Work climate, employees' well-being and the possibility of change. 255 p. Summary 3 p. 2003.

227 METSÄPELTO, RIITTA-LEENA, Individual differences in parenting: The five-factor model of personality as an explanatory framework - Lastenkasvatus ja sen yhteys vanhemman persoonallisuuden piirteisiin. 53 p. (119 p.) Tiivistelmä 3 p. 2003.

228 PULKKINEN, OILI, The labyrinth of politics - A conceptual approach to the modes of the political in the scottish enlightenment. 144 p. Yhteenveto 2 p. 2003.

229 JUUJÄRVI, PETRI, A three-level analysis of reactive aggression among children. - Lasten aggressiivisiin puolustusreaktioihin vaikuttavien tekijöiden kolmitasoinen analyysi. 39 p. (115 p.) Yhteenveto 2 p. 2003.

230 POIKONEN, PIRJO-LIISA, "Opetussuunnitelma on sitä elämää". Päiväkoti-kouluyhteisö opetussuunnitelman kehittäjänä. - "The curriculum is part of our life". The day-cara - cum - primary school community as a curriculum developer. 154 p. Summary 3 p. 2003.

231 SOININEN, SUVI, From a 'Necessary Evil' to an art of contingency: Michael Oakeshott's conception of political activity in British postwar political thought. 174 p. Summary 2p. 2003.

232 ALARAUDANJOKI, ESA, Nepalese child labourers' life-contexts, cognitive skills and well-being. - Työssäkäyvien nepalilaislasten elämänkonteksti, kognitiiviset taidot ja hyvinvointi. 62 p. (131 p.) Yhteenveto 4 p. 2003.

233 LERKKANEN, MARJA-KRISTIINA, Learning to read. Reciprocal processes and individual pathways. - Lukemaan oppiminen: vastavuoroiset prosessit ja yksilölliset oppimispolut. 70 p. (155 p.) Yhteenveto 5 p. 2003.

234 FRIMAN, MERVI, Ammatillisen asiantuntijan etiikka ammattikorkeakoulutuksessa. - The ethics of a professional expert in the context of polytechnics. 199 p. 2004.

235 MERONEN, AULI, Viittomakielen omaksumisen yksilölliset tekijät. - Individual differences in sign language abilities. 110 p. Summary 5 p. 2004.

236 TIILIKKALA, LIISA, Mestarista tuutoriksi. Suomalaisen ammatillisen opettajuuden muutos ja jatkuvuus. - From master to tutor. Change and continuity in Finnish vocational teacherhood. 281 p. Summary 3 p. 2004.

237 ARO, MIKKO, Learning to read: The effect of orthography. - Kirjoitusjärjestelmän vaikutus lukemaan oppimiseen. 44 p. (122 p.) Tiivistelmä 2 p. 2004.

238 LAAKSO, ERKKI, Draamakokemusten äärellä. Prosessidraaman oppimispotentiaali opettajaksi opiskelevien kokemusten valossa. - Encountering drama experiences. The learning potential of process drama in the light of student teachers' experiences. 230 p. Summary 7 p. 2004.

239 PERÄLÄ-LITTUNEN, SATU, Cultural images of a good mother and a good father in three generations. - Kulttuuriset mielikuvat hyvästä äidistä ja hyvästä isästä kolmessa sukupolvessa. 234 p. Yhteenveto 7 p. 2004.

240 RINNE-KOISTINEN, EVA-MARITA, Perceptions of health: Water and sanitation problems in rural and urban communities in Nigeria. 129 p. (198 p.) Yhteenveto 3 p. 2004.

241 PALMROTH, AINO, Käännösten kautta kollektiiviin. Tuuliosuuskunnat toimijaverkkoina. - From translation to collective. Wind turbine cooperatives as actor networks. 177 p. Summary 7 p. 2004.

242 VIERIKKO, ELINA, Genetic and environmental effects on aggression. - Geneettiset ja ympäristötekijät aggressiivisuudessa. 46 p. (108 p.) Tiivistelmä 3 p. 2004.

243 NÄRHI, KATI, The eco-social approach in social work and the challenges to the expertise of social work. - Ekososiaalinen viitekehys ja haasteet sosiaalityön asiantuntijuudelle. 106 p. (236 p.) Yhteenveto 7 p. 2004.

244 URSIN, JANI, Characteristics of Finnish medical and engineering research group work. - Tutkimusryhmätyöskentelyn piirteet lääke- ja teknisissä tieteissä. 202 p. Yhteenveto 9 p. 2004.

245 TREUTHARDT, LEENA, Tulosohjauksen yhteiskunnalliuus Jyväskylän yliopistossa. Tarkastelunäkökulmina muoti ja seurustelu. - The management by results a fashion and social interaction at the University of Jyväskylä. 228 p. Summary 3 p. 2004.

246 MATTHIES, JÜRGEN, Umweltpädagogik in der Postmoderne. Eine philosophische Studie über die Krise des Subjekts im umweltpädagogischen Diskurs. - Ympäristökasvatus postmodernissa. Filosofinen tutkimus subjektin kriisistä ympäristökasvatuksen diskurssissa.400 p. Yhteenveto 7 p. 2004.

247 LAITILA, AARNO, Dimensions of expertise in family therapeutic process. - Asiantuntijuuden ulottuvuuksia perheterapeuttisessa prosessissa. 54 p. (106 p.) Yhteenveto 3 p. 2004.

248 LAAMANEN (ASTIKAINEN), PIIA, Pre-attentive detection of changes in serially presented stimuli in rabbits and humans. - Muutoksen esitietoinen havaitseminen sarjallisesti esitetyissä ärsykkeissä kaneilla ja ihmisillä. 35 p. (54 p.) Yhteenveto 3 p. 2004.

249 JUUSENAHO, RIITTA, Peruskoulun rehtoreiden johtamisen eroja. Sukupuolinen näkökulma. - Differences in comprehensive school leadership and management. A gender-based approach. 176p. Summary 3 p. 2004.

293 PITKÄNEN, TUULI, Alcohol drinking behavior and its developmental antecedents. - Alkoholin juomiskäyttäytyminen ja sen ennusta minen. 103 p. (169 p.) Tiivistelmä 6 p. 2006.
294 LINNILÄ, MAIJA-LIISA, Kouluvalmiudesta koulun valmiuteen. Poikkeuksellinen koulunaloitus koulumenestyksen, viranomaislausuntojen ja perheiden kokemusten valossa. - From school readiness to readiness of school – Exceptional school starting in the light of school attainment, official report and family experience. 321 p. Summary 3 p. 2006.
295 LEINONEN, ANU, Vanhusneuvoston funktioita jäljittämässä. Tutkimus maaseutumaisten kuntien vanhusneuvostoista. – Tracing functions of older people's councils. A study on older people's councils in rural municipalities. 245 p. Summary 3 p. 2006.
296 KAUPPINEN, MARKO, Canon vs. charisma. "Maoism" as an ideological construction. - Kaanon vs. karisma. "Maoismi" ideologisena konstruktiona. 119 p. Yhteenveto 2 p. 2006.
297 VEHKAKOSKI, TANJA, Leimattu lapsuus? Vammaisuuden rakentuminen ammatti-ihmisten puheessa ja teksteissä. – Stigmatized childhood? Constructing disability in professional talk and texts. 83 p. (185 p.) Summary 4 p. 2006.
298 LEPPÄAHO, HENRY, Matemaattisen ongelman ratkaisutaidon opettaminen peruskoulussa. Ongelmanratkaisukurssin kehittäminen ja arviointi. – Teaching mathematical problem solving skill in the Finnish comprehensive school. Designing and assessment of a problem solving course. 343 p. Summary 4 p. 2007.
299 KUVAJA, KRISTIINA, Living the Urban Challenge. Sustainable development and social sustainability in two southern megacities. 130 p. (241 p.) Yhteenveto 4 p. 2007.
300 POHJOLA, PASI, Technical artefacts. An ontological investigation of technology. 150 p. Yhteenveto 3 p. 2007.
301 KAUKUA, JARI, Avicenna on subjectivity. A philosophical study. 161 p. Yhteenveto 3 p. 2007.
302 KUPILA, PÄIVI, "Minäkö asiantuntija?". Varhaiskasvatuksen asiantuntijan merkitysperspektiivin ja identiteetin rakentuminen. –"Me, an expert?" Constructing the meaning perspective and identity of an expert in the field of early childhood education. 190 p. Summary 4 p. 2007.
303 SILVENNOINEN, PIIA, Ikä, identiteetti ja ohjaava koulutus. Ikääntyvät pitkäaikaistyöttömät oppimisyhteiskunnan haasteena. – Age, identity and career counselling. The ageing, long-term unemployed as a challenge to learning society. 229 p. Summary 4 p. 2007.
304 REINIKAINEN, MARJO-RIITTA, Vammaisuuden sukupuolittuneet ja sortavat diskurssit: Yhteiskunnallis-diskursiivinen näkökulma vammaisuuteen. – Gendered and oppressive discourses of disability: Social-discursive perspective on disability. 81 p. (148 p.) Summary 4 p. 2007.
305 MÄÄTTÄ, JUKKA, Asepalvelus nuorten naisten ja miesten opinto- ja työuralla. – The impact of military service on the career and study paths of young women and men. 141 p. Summary 4 p. 2007.
306 PYYKKÖNEN, MIIKKA, Järjestäytyvät diasporat. Etnisyys, kansalaisuus, integraatio ja hallinta maahanmuuttajien yhdistystoiminnassa. – Organizing diasporas. Ethnicity, citizenship, integration, and government in immigrant associations. 140 p. (279 p.) Summary 2 p. 2007.
307 RASKU, MINNA, On the border of east and west. Greek geopolitical narratives. – Idän ja lännen rajalla. Narratiiveja kreikkalaisesta geopolitiikasta. 169 p. Yhteenveto 3 p. 2007.
308 LAPIOLAHTI, RAIMO, Koulutuksen arviointi kunnallisen koulutuksen järjestäjän tehtävänä. Paikallisen arvioinnin toteutumisedellytysten arviointia erään kuntaorganisaation näkökulmasta. – The evaluation of schooling as a task of the communal maintainer of schooling – what are the presuppositions of the execution of evaluation in one specific communal organization. 190 p. Summary 7 p. 2007.
309 NATALE, KATJA, Parents' Causal Attributions Concerning Their Children's Academic Achievement . – Vanhempien lastensa koulumenestystä koskevat kausaaliattribuutiot. 54 p. (154 p.) Yhteenveto 3 p. 2007.
310 VAHTERA, SIRPA, Optimistit opintiellä. Opinnoissaan menestyvien nuorten hyvinvointi lukiosta jatko-opintoihin. – The well-being of optimistic, well-performing high school students from high school to university. 111 p. Summary 2 p. 2007.
311 KOIVISTO, PÄIVI, "Yksilöllistä huomiota arkisissa tilanteissa". Päiväkodin toimintakulttuurin kehittäminen lasten itsetuntoa vahvistavaksi. – "Individual attention in everyday situations". Developing the operational culture of a day-care centre to strengthen children's self-esteem. 202 p. Summary 4 p. 2007.
312 LAHIKAINEN, JOHANNA, "You look delicious" – Food, eating, and hunger in Margaret Atwood's novels. 277 p. Yhteenveto 2 p. 2007.
313 LINNAVUORI, HANNARIIKKA, Lasten kokemuksia vuoroasumisesta. – Children's experiences of dual residence. 202 p. Summary 8 p. 2007.
314 PARVIAINEN, TIINA, Cortical correlates of language perception. Neuromagnetic studies in adults and children. – Kielen käsittely aivoissa. Neuromagneettisia tutkimuksia aikuisilla ja lapsilla. 128 p. (206 p.) Yhteenveto 5 p. 2007.

315 Kara, Hannele, Ermutige mich Deutsch zu sprechen. Portfolio als evaluationsform von mündlichen leistungen. – "Rohkaise minua puhumaan saksaa" – kielisalkku suullisen kielitaidon arviointivälineenä. 108 p. Yhteenveto 3 p. 2007.

316 Mäkelä, Aarne, Mitä rehtorit todella tekevät. Etnografinen tapaustutkimus johtamisesta ja rehtorin tehtävistä peruskoulussa. – What principals really do. An ethnographic case study on leadership and on principal's tasks in comprehensive school. 266 p. Summary 5 p. 2007.

317 Puolakanaho, Anne, Early prediction of reading – Phonological awareness and related language and cognitive skills in children with a familial risk for dyslexia. – Lukemistaitojen varhainen ennustaminen. Fonologinen tietoisuus, kielelliset ja kognitiiviset taidot lapsilla joiden suvussa esiintyy dysleksiaa. 61 p. (155 p.) Yhteenveto 3 p. 2007.

318 Hoffman, David M., The career potential of migrant scholars in Finnish higher education. Emerging perspectives and dynamics. - Akateemisten siirtolaisten uramahdollisuudet suomalaisessa korkeakoulujärjestelmässä: dynamiikkaa ja uusia näkökulmia. 153 p. (282 p.) Yhteenveto 2 p. 2007.

319 Fadjukoff, Päivi, Identity formation in adulthood. - Identiteetin muotoutuminen aikuisiässä. 71 p. (168 p.) Yhteenveto 5 p. 2007.

320 Mäkikangas, Anne, Personality, well-being and job resources: From negative paradigm towards positive psychology. - Persoonallisuus, hyvinvointi ja työn voimavarat: Kohti positiivista psykologiaa. 66 p. (148 p.) Yhteenveto 3 p. 2007.

321 Jokisaari, Markku, Attainment and reflection: The role of social capital and regrets in developmental regulation. - Sosiaalisen pääoman ja toteutumattomien tavoitteiden merkitys kehityksen säätelyssä. 61 p. (102 p.) Yhteenveto 2 p. 2007.

322 Hämäläinen, Jarmo, Processing of sound rise time in children and adults with and without reading problems. - Äänten nousuaikojen prosessointi lapsilla ja aikuisilla, joilla on dysleksia ja lapsilla ja aikuisilla, joilla ei ole dysleksiaa. 48 p. (95 p.) Tiivistelmä 2 p. 2007.

323 Kanervio, Pekka, Crisis and renewal in one Finnish private school. - Kriisi ja uudistuminen yhdessä suomalaisessa yksityiskoulussa. 217 p. Tiivistelmä 2 p. 2007.

324 Määttä, Sami, Achievement strategies in adolescence and young adulthood. - Nuorten ajattelu- ja toimintastrategia. 45 p. (120 p.) Tiivistelmä 3 p. 2007.

325 Torppa Minna, Pathways to reading acquisition: Effects of early skills, learning environment and familial risk for dyslexia. - Yksilöllisiä kehityspolkuja kohti lukemisen taitoa: Varhaisten taitojen, oppimisympäristön ja sukuriskin vaikutukset. 53 p. (135 p.) 2007.

326 Kankainen, Tomi, Yhdistykset, instituutiot ja luottamus. - Voluntary associations, institutions and trust.158 p. Summary 7 p. 2007.

327 Pirnes, Esa, Merkityksellinen kulttuuri ja kulttuuripolitiikka. Laaja kulttuurin käsite kulttuuripolitiikan perusteluna. - Meaningful culture and cultural policy. A broad concept of culture as a basis for cultural policy. 294 p. Summary 2 p. 2008.

328 Niemi, Petteri, Mieli, maailma ja referenssi. John McDowellin mielenfilosofian ja semantiikan kriittinen tarkastelu ja ontologinen täydennys. - Mind, world and reference: A critical examination and ontological supplement of John McDowell's philosophy of mind and semantics. 283 p. Summary 4 p. 2008.

329 Granbom-Herranen, Liisa, Sananlaskut kasvatuspuheessa – perinnettä, kasvatusta, indoktrinaatiota? – Proverbs in pedagogical discourse – tradition, upbringing, indoctrination? 324 p. Summary 8 p. 2008.

330 Kykyri, Virpi-Liisa, Helping clients to help themselves. A discursive perspective to process consulting practices in multi-party settings. - Autetaan asiakasta auttamaan itse itseään. Diskursiivinen näkökulma prosessikonsultoinnin käytäntöihin ryhmätilanteissa. 75 p. (153 p.) Tiivistelmä 2 p. 2008.

331 Kiuru, Noona, The role of adolescents' peergroups in the school context. - Nuortentoveriryhmien rooli kouluympäristössä. 77 p. (192 p.) Tiivistelmä 3 p. 2008.

332 Partanen, Terhi, Interaction and therapeutic interventions in treatment groups for intimately violent men. 46 p. (104 p) Yhteenveto 2 p. 2008.

333 Raittila, Raija, Retkellä. Lasten ja kaupunkiympäristön kohtaaminen. – Making a visit. Encounters between children and an urban environment. 179 p. Summary 3 p. 2008.

334 Sume, Helena, Perheen pyörteinen arki. Sisäkorvaistutetta käyttävän lapsen matka kouluun. – Turbulent life of the family. Way to school of a child with cochlear implant. 208 p. Summary 6 p. 2008.

335 Kotiranta, Tuija, Aktivoinnin paradoksit. - The paradoxes of activation. 217 p. Summary 3 p. 2008.

336 Ruoppila, Isto, Huuhtanen, Pekka, Seitsamo, Jorma and Ilmarinen, Juhani, Age-related changes of the work ability construct and its relation to cognitive functioning in the older worker: A 16-year follow-up study. 97 p. 2008.

337 Tikkanen, Pirjo, "Helpompaa ja hauskempaa kuin luulin". Matematiikka suomalaisten ja unkarilaisten perusopetuksen neljäsluokkalaisten kokemana.– "Easier and more fun that

I thought". Mathematics experienced by fourth-graders in Finnish and Hungarian comprehensive schools. 309 p. Summary 3 p. 2008.

338 KAUPPINEN, ILKKA, Tiedon *omistaminen* on valtaa – Globalisoituvan patenttijärjestelmän poliittinen moraalitalous ja globaali kapitalismi. – *Owning* knowledge is power. Political moral economy of the globalizing patent system and global capitalism. 269 p. Summary 5 p. 2008.

339 KUJALA, MARIA, Muukalaisena omassa maassa. Miten kasvaa vuorovaikutuskonflikteissa? – A stranger in one's own land. How to grow in interaction conflicts? 174 p. Summary 7 p. 2008.

340 KOPONEN, TUIRE, Calculation and Language: Diagnostic and intervention studies. - Laskutaito ja kieli: Diagnostinen ja kuntoutustutkimus. 49 p. (120 p.) Tiivistelmä 2 p. 2008.

341 HAUTALA, PÄIVI-MARIA, Lupa tulla näkyväksi. Kuvataideterapeuttinen toiminta kouluissa. - Permission to be seen. Art therapeutic activities in schools. 202 p. 2008.

342 SIPARI, SALLA, Kuntouttava arki lapsen tueksi. Kasvatuksen ja kuntoutuksen yhteistoiminnan rakentuminen asiantuntijoiden keskusteluissa. - Habilitative everyday life to support the child. Construction of the collaboration of education and rehabilitation in experts discussions. 177 p. Summary 4 p. 2008.

343 LEHTONEN, PÄIVI HANNELE, Voimauttava video. Asiakaslähtöisyyden, myönteisyyden ja videokuvan muodostama työorientaatio perhetyön menetelmänä. - Empowering video. A work orientation formed by client-focus, positivity and video image as a method for family work. 257 p. Summary 3 p. 2008.

344 RUOHOMÄKI, JYRKI, "Could Do Better". Academic Interventions in Northern Ireland Unionism. - "Could Do Better" Akateemiset interventiot Pohjois-Irlannin unionismiin. 238 p. Tiivistelmä 2 p. 2008.

345 SALMI, PAULA, Nimeäminen ja lukemisvaikeus. Kehityksen ja kuntoutuksen näkökulma. - Naming and dyslexia: Developmental and training perspectives. 169 p. Summary 2 p. 2008.

346 RANTANEN, JOHANNA, Work-family interface and psychological well-being: A personality and longitudinal perspective. - Työn ja perheen vuorovaikutuksen yhteys psyykkiseen hyvinvointiin sekä persoonallisuuteen pitkittäistutkimuksen näkökulmasta 86 p. (146 p.) Yhteenveto 6 p. 2008.

347 PIIPPO, JUKKA, Trust, Autonomy and Safety at Integrated Network- and Family-oriented mode for co-operation. A Qualitative Study. 70 p. (100 p.) Yhteenveto 2 p. 2008.

348 HÄTINEN, MARJA, Treating job burnout in employee rehabilitation: Changes in symptoms, antecedents, and consequences. - Työuupumuksen hoito työikäisten kuntoutuksessa: muutokset työuupumuksen oireissa, ennakoijissa ja seurauksissa. 85 p. (152 p.) Tiivistelmä 4 p. 2008.

349 PRICE, GAVIN, Numerical magnitude representation in developmental dyscalculia: Behavioural and brain imaging studies. 139 p. 2008.

350 RAUTIAINEN, MATTI, Keiden koulu? Aineenopettajaksi opiskelevien käsityksiä koulukulttuurin yhteisöllisyydestä. - Who does school belong to? Subject teacher students' conceptions of community in school culture. 180 p. Summary 4 p. 2008.

351 UOTINEN, SANNA, Vanhempien ja lasten toimijuuteen konduktiivisessa kasvatuksessa. - Into the agency of a parent and a child in conductive education. 192 p. Summary 3 p. 2008.

352 AHONEN, HELENA, Rehtoreiden kertoma johtajuus ja johtajaidentiteetti. - Leadership and leader identity as narrated by headmasters. 193 p. 2008.

353 MOISIO, OLLI-PEKKA, Essays on radical educational philosophy. 151 p. Tiivistelmä 3 p. 2009.

354 LINDQVIST, RAIJA, Parisuhdeväkivallan kohtaaminen maaseudun sosiaalityössä. - Encountering partner violence with rural social work. 256 p. 2009.

355 TAMMELIN, MIA, Working time and family time. Experiences of the work and family interface among dual-earning couples in Finland. - Työaika ja perheen aika: kokemuksia työn ja perheen yhteensovittamisesta Suomessa. 159 p. Tiivistelmä 3 p. 2009.

356 RINNE, PÄIVI, Matkalla muutokseen. Sosiaalialan projektitoiminnan perustelut, tavoitteet ja toimintatavat Sosiaaliturva-lehden kirjoituksissa 1990-luvulla. - On the way to the change. 221 p. Summary 2 p. 2009.

357 VALTONEN, RIITTA, Kehityksen ja oppimisen ongelmien varhainen tunnistaminen Lene-arvioinnin avulla. Kehityksen ongelmien päällekkäisyys ja jatkuvuus 4–6-vuotiailla sekä ongelmien yhteys koulusuoriutumiseen. - Lene-assessment and early identification of developmental and learning problems. Co-occurrence and continuity of developmental problems from age 4 to age 6 and relation to school performance. 73 p. (107 p.) Summary 2 p. 2009.

358 SUHONEN,KATRI, Mitä hiljainen tieto on hengellisessä työssä? Kokemuksellinen näkökulma hiljaisen tiedon ilmenemiseen, siirrettävyyteen ja siirrettävyyden merkitykseen ikääntyneiden diakoniatyöntekijöiden ja pappien työssä. - What is tacit knowledge in spiritual work? An experiential approach to the manifestation, significance and distribution of tacit knowledge in the work of aged church deacons and ministers. 181 p. Summary 6 p. 2009.

359 Jumppanen, Aapo, United with the United States – George Bush's foreign policy towards Europe 1989–1993. 177 p. Yhteenveto 3 p. 2009.
360 Huemer, Sini, Training reading skills. Towards fluency. - Lukemistaitojen harjoittaminen. Tavoitteena sujuvuus. 85 p. (188 p.) Yhteenveto 3 p. 2009.
361 Eskelinen, Teppo, Putting global poverty in context. A philosophical essay on power, justice and economy. 221 p. Yhtenveto 1 p. 2009.
362 Taipale, Sakari, Transformative technologies, spatial changes: Essays on mobile phones and the internet. 97 p. (184 p.) Yhteenveto 3 p. 2009.
363 Korkalainen, Paula, Riittämättömyyden tunteesta osaamisen oivallukseen. Ammatillisen asiantuntijuuden kehittäminen varhaiserityiskasvatuksen toimintaympäristöissä. - From a feeling of insuffiency to a new sense of expertise. Developing professional knowledge and skills in the operational environments for special needs childhood education and care. 303 p. Summary 4 p. 2009.
364 Seppälä-Pänkäläinen, Tarja, Oppijoiden moninaisuuden kohtaaminen suomalaisessa lähikoulussa. Etnografia kouluyhteisön aikuisten yhdessä oppimisen haasteista ja mahdollisuuksista. - Confronting the Diversity of Learners in a Finnish Neighbourhood School. An Ethnographic Study of the Challenges and Opportunities of Adults Learning Together in a School community. 256 p. Summary 4 p. 2009.
365 Sevón, Eija, Maternal Responsibility and Changing Relationality at the Beginning of Motherhood. - Äidin vastuu ja muuttuvat perhesuhteet äitiyden alussa. 117 p. (200 p.) Yhteenveto 5 p. 2009.
366 Huttunen-Scott, Tiina, Auditory duration discrimination in children with reading disorder, attention deficit or both. - Kuulonvarainen keston erottelu lapsilla, joilla on lukemisvaikeus, tarkkaavaisuuden ongelma tai molemmat . 68 p. (112 p.) Tiivistelmä 3 p. 2009.
367 Neuvonen-Rauhala, Marja-Liisa, Työelämälähtöisyyden määrittäminen ja käyttäminen ammattikorkeakoulun jatkotutkintokokeilussa. - Defining and applying working-life orientation in the polytechnic postgraduate experiment. 163 p. Summary 7 p. 2009.
368 Nyman, Tarja, Nuoren vieraan kielen opettajan pedagogisen ajattelun ja ammatillisen asiantuntijuuden kehittyminen. - The development of pedagogical thinking and professional expertise of newly qualified language teachers. 121 p. (201 p.) Summary 4 p. 2009.
369 Puutio, Risto, Hidden agendas. Situational tasks, discursive strategies and institutional practices in process consultation. 83 p. (147 p.) Tiivistelmä 2 p. 2009.
370 Toivanen, Juhana, Animal consciousness. Peter Olivi on cognitive functions of the sensitive soul. 369 p. Yhteenveto 4 p. 2009.
371 Nokia, Miriam, The role of the hippocampal theta activity in classical eyeblink conditioning in rabbits. - Hippokampuksen theta-aktiivisuuden rooli klassisessa silmäniskuehdollistamisessa kaneilla. 41 p. (80 p.) Yhteenveto 2 p. 2009.
372 Lähteenmäki, Vili, Essays on early modern conceptions of consciousness: Descartes, Cudworth, and Locke. 160 p. 2009.
373 Björk, Kaj, What explains development. Development strategy for low human development index countries. 212 p. Yhteenveto 1 p. 2009.
374 Puupponen, Antti, Maaseutuyrittäjyys, verkostot ja paikallisuus. Tapaustutkimus pienimuotoisen elintarviketuotannon kestävyydestä Keski-Suomessa. - Rural entrepreneurship, networks and locality. A case study of the sustainability of small-scale food production in Central Finland. 100 p. (191 p.) Summary 3 p. 2009.
375 Halttunen, Leena, Päivähoitotyö ja johtajuus hajautetussa organisaatiossa. - Day care work and leadership in a distributed organization. 181 p. Summary 4 p. 2009.
376 Kaidesoja, Tuukka, Studies on ontological and methodological foundations of critical realism in the social sciences. 65 p. (187 p.) Yhteenveto 9 p. 2009.
377 Sippola, Markku, A low road to investment and labour management? The labour process at Nordic subsidiaries in the Baltic States. 272 p. Tiivistelmä 2 p. 2009.
378 Santala, Olli-Pekka, Expertise in using the Rorschach comprehensive system in personality assessment. 150 p. Tiivistelmä 1 p. 2009.
379 Harjunen, Hannele, Women and fat: Approaches to the social study of fatness. - Naiset ja lihavuus: näkökulmia lihavuuden yhteiskuntatieteelliseen tutkimukseen 87 p. (419 p.) Tiivistelmä 4 p. 2009.
380 Kettunen, Liisa, Kyllä vai ei. Peruskoulun sukupuolikasvatuksen oppimateriaalin kehittämistyö ja arviointi. - Yes or no? The development and evaluation of teaching material for sex education in the Finnish comprehensive school. 266 p. Summary 3 p. 2010.
381 From, Kristine, "Että sais olla lapsena toisten lasten joukossa". Substantiivinen teoria erityistä tukea tarvitsevan lapsen toiminnallisesta osallistumisesta toimintaympäristöissään. - To be a child just as the others in the peer group. A substantive theory of activity-

based participation of the child with special educational needs. 174 p. Summary 4 p. 2010.

382 Mykkänen, Johanna, Isäksi tulon tarinat, tunteet ja toimijuus. - Becoming a father – types of narrative, emotions and agency. 166 p. Summary 5 p. 2010.

383 Raasumaa, Vesa, Perusopetuksen rehtori opettajien osaamisen johtajana. - Knowledge management functions of a principal in basic education. 349 p. Summary 5 p. 2010.

384 Siisiäinen, Lauri, Foucault´s voices: Toward the political genealogy of the auditory-sonorous. - Foucault´n äänet. Kohti auditoris-sonoorista poliittista genealogiaa. 207 p. Tiivistelmä 2 p. 2010.

385 Pulli, Tuula, Totta ja unta. Draama puhe- ja kehitysvammaisten ihmisten yhteisöllisenä kuntoutuksena ja kokemuksena. - The Real and the Illusory. Drama as a means of community-based rehabilitation and experience for persons with severe learning and speech disabilities. 281 p. Summary 7 p. 2010.

386 Siiskonen, Tiina, Kielelliset erityisvaikeudet ja lukemaan oppiminen. - Specific language impairments and learning to read. 205 p. Summary 3 p. 2010.

387 Lyyra, Pessi, Higher-order theories of consciousness: An appraisal and application. - Korkeamman kertaluvun tietoisuusteoriat: arvio ja käyttöehdotus. 163 p. Yhteenveto 5 p. 2010.

388 Karjalainen, Merja, Ammattilaisten käsityksiä mentoroinnista työpaikalla. - Professionals' conceptions of mentoring at work. 175 p. Summary 7 p. 2010.

389 Gemechu, dereje terefe, The implementation of a multilingual education policy in Ethiopia: The case of Afaan Oromoo in primary schools of Oromia Regional State. 266 p. 2010.

390 Koivula, merja, Lasten yhteisöllisyys ja yhteisöllinen oppiminen päiväkodissa. - Children's sense of community and collaborative learning in a day care centre. 189 p. Summary 3 p. 2010.

391 Niemi, minna, Moraalijärjestystä tuottamassa. Tutkimus poliisityöstä lasten parissa. - Producing moral order. A Study on police work with children. 190 p. Summary 3 p. 2010.

392 Alemayehu Teklemariam Haye, Effects of intervention on psychosocial functioning of hearing and hard of hearing children in selected primary schools of Addis Ababa, Ethiopia. 195 p. Executive summary 4 p. 2010.

393 Kaskiharju, Eija, Koteja ja kodinomaisuutta. Tutkimus vanhenemisen paikoista valtiopäiväpuheissa 1950 - 2005. - Homes and homelikeness. A study on places for ageing in parliamentary speeches from 1950 to 2005. 244 p. Summary 5 p. 2010.

394 Mahlakaarto, Salme, Subjektiksi työssä - Identiteettiä rakentamassa voimaantumisen kehitysohjelmassa. - Becoming a subject at work - Constructing identity within a program of empowerment. 95 p. (198 p.) Yhteenveto 1 p. 2010.

395 Tapio, Tarja, "Meilä on kaikila samanlaiset tarinat". Tarinankerrontatutkimus tornionlaaksolaisuudesta vanhimpien aapualaisten arjessa ja tulevaisuudessa. - "We all have the same stories". A storytelling case study of Torne Valley -ness in the everyday life and future of elderly Aapua residents. 261 p. Summary 6 p. 2010.

396 Rautiainen, Eija-Liisa, Co-construction and collaboration in couple therapy for depression. - Yhteistoiminnallisuus masennuksen pariterapiassa. 56 p. (122 p.) Yhteenveto 3 p. 2010.

397 Aaltonen, Terhi, "Taiteilija ei vanhene". Haastattelututkimus kuvataiteilijoiden ikääntymiskokemuksista taidemaailmassa. - "An artist doesn´t get old". An interview-based study of painters' experiences of ageing in the world. 216 p. Summary 5 p. 2010.

398 Savolainen, Kaisa, Education as a means to world peace: The case of the 1974 UNESCO recommendation. - Kasvatus maailmanrauhan välineenä: Tapaustutkimus UNESCON 1974 hyväksymästä suosituksesta. 262 p. Yhteenveto 12 p. 2010.

399 Hemminki, Arja, Kertomuksia avioerosta ja parisuhteen päättymisestä. Suomalainen eropuhe pohjalaisten kirjoituksissa ja naistenlehdissä. - Narratives on divorce and ending of a relationship. 158 p. Summary 2 p. 2010.

400 Saine, Nina, On the rocky road of reading: Effects of computer-assisted intervention for at-risk children. - Lukemaan oppimisen kivisellä tiellä – Verkkopohjaisen Ekapeli - ohjelman kuntouttavat vaikutukset riskilasten lukemaan oppimisessa. 95 p. (208 p.) Yhteenveto 5 p. 2010.

401 Viljaranta, Jaana, The development and role of task motivation and task values during different phases of the school career. - Oppiainekohtaisen koulumotivaation kehitys ja rooli koulutaipaleen eri vaiheissa. 53 p. (115 p.) Yhteenveto 1 p. 2010.

402 Oinas, Tomi, Sukupuolten välinen kotityönjako kahden ansaitsijan perheissä. - Domestic division of labour in dual-earner households. 188 p. 2010.

403 Mammon, Reet, Kolmen etnisen ryhmän kotoutumisprosessi Suomessa. - The integration process of three ethnic groups in Finland. 142 p. Summary 5 p. 2010.

404 Ketonen, Ritva, Dysleksiariski oppimisen haasteena. Fonologisen tietoisuuden interventio ja lukemaan oppiminen. - Risk for dyslexia as a challenge of learning. Phonological intervention and learning to read. 139 p. Summary 3 p. 2010.

405 LAHTERO, TAPIO, Yhtenäiskoulun johtamiskulttuuri. Symbolis-tulkinnallinen näkökulma. - Leadership culture in unified comprehensive school, symbolic-interpretative approach. 238 p. Summary 2 p. 2011.

406 NOTKO, MARIANNE, Väkivalta,vallankäyttö ja vahingoittuminen naisten perhesuhteissa. - Violence, power using and being hurt in women's family relations. 254 p. Summary 5 p. 2011.

407 PULKKINEN, SEPPO, Valmentajataustan merkitys rehtorin työssä. - The significance of coaching background in principal´s work. 211 p. Summary 7 p. 2011.

408 SÖDOR, UUVE, Community resilience and wellbeing in northwest Russian forestry settlements. 195 p. Summary 2 p. 2011.

409 HYVÖNEN, KATRIINA, Personal work goals put into context: Associations with work environment and occupational well-being. - Henkilökohtaisten työtavoitteiden puitteet: yhteydet työoloihin ja työhyvinvointiin 82 p. (133 p.) Yhteenveto 3 p. 2011.

410 RUOHOTIE-LYHTY, MARIA, Opettajuuden alkutaival. Vastavalmistuneen vieraan kielen opettajan toimijuus ja ammatillinen kehittyminen. - First steps on the path of teacherhood. Newly qualified foreign language teachers' agency and professional development. 98 p. (190 p.) Summary 2 p. 2011.

411 HALONEN, KATRI, Kulttuurituottajat taiteen ja talouden risteyskohdassa. - Cultural intermediaries at the junction between art and business. 101 p. (175 p.) Summary 6 p. 2011.

412 MIKOLA, MARJATTA, Pedagogista rajankäyntiä koulussa. Inkluusioreitit ja yhdessä oppimisen edellytykset. - Defining pedagogical boundaries at school – the routes to inclusion and conditions for collaborative learning. 304 p. Summary 8 p. 2011.

413 SOANJÄRVI, KATARIINA, Mitä on ammatillinen nuorisotyö? Nuorisotyön villiä kenttää kesyttämässä. - What is professional youth work? Taming of wild youth work sector. 152 p. Summary 3 p. 2011.

414 LEHTO-SALO, PIRKKO, Koulukotisijoitus – nuoren toinen mahdollisuus? Mielenterveyden häiriöiden, oppimisvaikeuksien ja perheongelmien kirjo kehittämishaasteena. - The placement on a reform school – The second change for an adolescent? Psychiatric disorders, learning disabilities and problems in the family as a challenge of treatment. 74 p. (125 p.) 2011.

415 MÄGI, KATRIN, Achievement goals, achievement behaviours, and skill development in the school and home context: Their antecedents and correlates. 54 p. (134 p.) Yhteenveto 3 p. 2011.

416 HEINONEN, VEIKKO U.J., Suomalaisen turvallisuuspolitiikan tila. Suomalaisen 2000-luvun alun turvallisuuspoliittisen debatin käsiteanalyyttinen tarkastelu. - The state of Finnish security policy. A conceptual analysis of the Finnish debate on security policy in the early 2000s. 266 p. Yhteenveto 1 p. 2011.

417 PURO, ERIKA, Peruskoulun erityisopetuksen laatu oppilaiden, huoltajien, koulunkäyntiavustajien, opettajien ja rehtorien arvioimana. - The quality of special education in Finnish comprehensive schools from the viewpoint of pupils, parents, educational assistants, teachers and principals. 165 p. Summary 2 p. 2011.

418 PIETIKÄINEN, MAIJA, Laulu ja amor mundi. Tutkimus laulusta eräänä maailmasta huolehtimisen perusaktiviteettina. - Singing and amor mundi. 193 p. Summary 2 p. 2011.

419 SALO, SIRPA, Parisuhdeongelmat ja lasten psyykkinen hyvinvointi: kaksi tutkimusnäkökulmaa. - Couples conflicts and children's mental wellbeing: two research approaches. 156 p. Summary 2 p. 2011.

420 HANNONEN, RIITTA, Verbal and academic skills in children with type 1 diabetes. - Tyypin 1 diabetesta sairastavien lasten kielelliset ja oppimiseen liittyvät perustaidot. 49 p. (79 p.) Yhteenveto 3 p. 2011.

421 SELIN, JANI, Hallinnan näkökulmia huumeriippuvuuden hoitoon Suomessa vuosina 1965-2005. - Governmental perspectives on the treatment of drug addiction in Finland between 1965 and 2005. 55 p. (118 p.) Summary 2 p. 2011.

422 NIKKOLA, TIINA, Oppimisen esteet ja mahdollisuudet ryhmässä. Syyllisyyden kehittyminen syntipukki-ilmiöksi opiskeluryhmässä ohjaajan tulkitsemana. - Learning in a group: obstacles and opportunities. A supervisor's interpretation of how guilt becomes scapegoating in a study group. 244 p. Summary 6 p. 2011.

423 LASSENIUS, YVONNE, Utvecklingen av vårdlärarnas kulturkompetens. En kvalitativ studie som fokuserar på lärarna i mångkulturella lärandemiljöer i Finland. - The development of nurse teachers´ cultural competence. A qualitative study focusing on teachers in multicultural learning environments in Finland. 74 p. (101 p.) Summary 2 p. 2011.

424 YLÖNEN, MARJA, Saastumisen kontrollin ideologia. Vesien saastumisen ja vesirikosten kontrolli Suomessa vuosina 1960–2000. - Ideology of pollution control. Social control of water pollution and pollution crimes in Finland from the 1960s until the year 2000. 232 p. Summary 2 p. 2011.

425 PYLKKÄ, OUTI, Duuri- ja mollisointuja musiikkialan kentällä. Organisaatiomuutoksen heijastuksia ammattikorkeakoulun musiikinopettajien työhön. - Ideology of pollution control. Major and minor