Hely Innanen

Occupational Well-being

The Role of Areas of Worklife and Achievement and Social Strategies

JYVÄSKYLÄN YLIOPISTO

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Cover picture: Kammonvuori (the Haunted Mountain) on Kokonsaari,
on lake Saimaa near Savonlinna. I like to visit this place during summer
to relax and recover from work. Photo by Hely Innanen.

ABSTRACT

This research focused on the role of the six areas of worklife (workload, control, reward, community, fairness and values) and achievement and social strategies in occupational well-being. The research had four aims: 1) to examine the role of the six areas of worklife and achievement and social strategies in burnout; 2) to examine the role of gender in these relations; 3) to identify longitudinal subjective well-being at work profiles among highly educated employees; 4) to examine the antecedents and outcomes of the subjective well-being at work profiles.

Two different data sets were used. Sample 1a from occupational health care clients included 1,800 employees from four organizations: a logistics organization, a health care organization, a university, and a company in information and communications technology (ICT). Sample 1b from the same data included 386 young employees (from 18 to 30 years old) at their early career stage. The second data set (sample 2) was from the ongoing Helsinki Longitudinal University Student Study (HELS) (since 1991).

The results showed, first, that achievement and social strategies, and the six areas of worklife, were significantly related to exhaustion, cynicism and professional efficacy. Furthermore, achievement and social strategies partially mediated the associations between areas of worklife and burnout. Second, the results revealed no gender differences in regard to the levels of exhaustion, cynicism and professional efficacy during the early career stage. Achievement optimism significantly supported professional efficacy among women. A strong preventive role of appropriate workload against exhaustion, and congruent values against cynicism was observed among both sexes. Rewards protected against exhaustion among men and strongly against cynicism among women. Third, two longitudinal subjective well-being at work profiles, the Engaged and the Exhausted–Workaholic profile, were labeled among highly educated employees. The profiles mostly showed high stability over time. The level of workaholism, however, decreased in the Exhausted–Workaholic profile. Fourth, social pessimism in the transition from university to work, predicted the membership of the longitudinal Exhausted–Workaholic profile. Finally, employees in the Engaged profile had higher experiences of psychological detachment, relaxation, life satisfaction, and rewards than employees in the Exhausted–Workaholic profile.

Keywords: occupational well-being, areas of worklife, achievement and social strategies, career transition

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TIIVISTELMÄ (FINNISH ABSTRACT)

Tutkimuksessa selvitettiin kuuden työelämäalueen sekä suoritus- ja sosiaalisten strategioiden roolia työhyvinvoinnissa. Tutkimuksella oli neljä tavoitetta: 1) tutkia kuuden työelämäalueen sekä suoritus- ja sosiaalisten strategioiden yhteyksiä työuupumuksen kokemuksiin; 2) tutkia sukupuolen roolia näissä yhteyksissä; 3) tunnistaa pitkittäiset yksilöllistä työhyvinvointia kuvaavat profiilit; 4) tutkia tiettyyn työhyvinvointiprofiiliin kuulumisen ennakoijia ja seurauksia.

Tutkimuksessa käytettiin kahta aineistoa. Kahden ensimmäisen osatutkimuksen aineisto (N = 1800) perustui työterveyshuollon keräämään aineistoon. Aineisto kerättiin neljän organisaation työntekijöiltä: logistiikka-alan organisaatio, terveydenhuollon organisaatio, yliopisto ja informaatioteknologian organisaatio. Toisen tutkimuksen otokseen kuuluivat aineiston 386 nuorta työntekijää. Varhaisella työuralla olevat työntekijät olivat 18–30-vuotiaita. Tutkimuksen toinen aineisto oli meneillään olevasta Helsinki Longitudinal University Student Study (HELS) -tutkimuksesta.

Tulokset osoittivat ensinnäkin, että suoritus- ja sosiaaliset strategiat sekä tutkitut kuusi työelämän aluetta olivat merkitsevästi yhteydessä emotionaaliseen uupumukseen, kyynisyyteen ja ammatillisen tehokkuuden tunteeseen. Lisäksi suoritus- ja sosiaaliset strategiat välittivät työolojen ja työuupumuksen välisiä yhteyksiä. Toiseksi, tulosten perusteella emotionaalisen uupumuksen, kyynisyyden ja ammatillisen tehokkuuden tunteessa ei ollut sukupuolieroja varhaisella työuralla. Yhteyksissä työelämäalueiden ja työuupumuksen sekä suoritus- ja sosiaalisten strategioiden ja työuupumuksen välillä voitiin todeta jonkin verran sukupuolieroja. Naisilla suoritusoptimismi oli merkitsevästi yhteydessä ammatillisen tehokkuuden tunteisiin. Molemmilla sukupuolilla sopiva työmäärä suojeli emotionaaliselta uupumukselta ja arvojen yhtenevyys organisaation arvojen kanssa kyynisyydeltä. Palkitsemisen kokemukset suojelivat miehiä emotionaaliselta uupumukselta ja naisia kyynisyydeltä. Kolmanneksi, kaksi selkeää työhyvinvointiprofiilia, Työn imu ja Emotionaalinen uupumus–työholismi, voitiin tunnistaa korkeasti koulutettujen ryhmässä. Profiilit olivat pysyviä varhaisuralta uran keskivaiheille. Työholismin taso kuitenkin laski merkitsevästi Emotionaalinen uupumus–työholismi -profiilissa. Neljänneksi, sosiaalinen pessimismi siirryttäessä yliopistosta työelämään ennusti kuulumista Emotionaalinen uupumus–työholismi -profiiliin. Lopuksi, Työn imu -profiiliin kuuluvilla psykologisen työstä irrottautumisen ja rentoutumisen tunne, elämäntyytyväisyys ja palkitsemisen tunteet olivat korkeammalla tasolla kuin Emotionaalinen uupumus–työholismi -profiiliin kuuluvilla työntekijöillä.

Avainsanat: työhyvinvointi, työelämäalueet, suoritus- ja sosiaaliset strategiat, siirtymät uralla.

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Hely Innanen

LIST OF ORIGINAL PUBLICATIONS

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II. Innanen, H. & Salmela-Aro, K. (2013). Gender differences in achievement and social strategies, areas of worklife and burnout at the early career stage. In H. Helve & K. Evans (Eds.), *Youth and work transitions in changing social landscapes* (pp. 160–176). London: Tufnell Press.

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Taking into account the instructions and comments made by co-authors, the author of the thesis applied the previously collected data, conducted the analyses, and wrote the reports of the three publications, independently.

FIGURES

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1   INTRODUCTION

The world of work is rapidly changing and becoming more demanding as a consequence of worldwide competition, continuing need for innovation, and job insecurity (Frese, 2008). As a consequence employees are required continuously to learn new knowledge, adapt their way of working, expand their social networks, and compete with others. Working with computers and internet allows unlimited work hours with no borderline between work and private life. On one hand frantic worklife and continuing changes challenge the psychological and physical well-being of employees (Schaufeli, Leiter & Maslach, 2009; Spielberger & Reheiser, 2005).

Motivation has been suggested to play an important role in occupational well-being. The life-span models of motivation assume that the challenges, and opportunities individuals experience at particular developmental stages of their lives channel their perceptions over the life stage (Little, Salmela-Aro, & Phillips, 2007; Nurmi, 1992; Van den Heuvel, Demerouti, Schaufeli, & Bakker, 2010) these, in turn, influence the ways in which people direct their development (Brandtstädter, 1984), and are also related to occupational well-being (Heckhausen, Chang, Greenberger, & Chen, 2013). The impact of individual differences on occupational well-being, has been shown through personality factors in several studies, such as self-esteem and optimism (Mäkikangas & Kinnunen, 2003) and the Big Five personality traits (Swider & Zimmerman, 2010; Zellars, Perrewe, & Hochwarter, 2000). Thus, individual differences are related to occupational well-being. The cognitive and behavioral patterns that accompany adaptations to the different situations that arise in this process have been defined as cognitive and attributional strategies. These, in turn, can be divided into achievement and social strategies, such as achievement optimism and pessimism, and social optimism and pessimism (Nurmi, Salmela-Aro, & Haavisto, 1995). In order to gain a deeper understanding on antecedents of occupational well-being, the present research adopted the life-span model of motivation (Brandtstädter, 1984). Recently, adaptivity and a positive attitude or exhibiting the required behaviors have been shown to be relevant for successfully under-

going changes in working life (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2013).

According to the theory of Person-Organization fit (Kristof-Brown, Zimmerman, & Johnson, 2005), the relationships between employees and their work play a significant role in occupational well-being (Bakker & Demerouti, 2007; Bakker & Leiter, 2010; Bakker & Oerlemans, 2011). Some previous results in regard to the predicting role of individual personality factors compared to environmental factors in burnout have shown contradictory results (Hakanen, 2004; Kalimo, Pahkin, Mutanen, & Toppinen-Tanner, 2003). Previous research has suggested that environmental factors (Leiter & Maslach, 1999, 2004) have a stronger impact on occupational well-being than vice versa (ter Doest & de Jonge, 2006). Recently, Wang, Liu, and Wang (2013), in turn, showed that individual factors had a bigger role in professional efficacy, whereas environmental factors predicted exhaustion and cynicism. Research on the simultaneous role of a wide range of areas of worklife and individual ways of thinking and behave (i.e. achievement and social strategies; Eronen, Nurmi, & Salmela-Aro, 1997; Onatsu-Arvilommi & Nurmi, 2000) in occupational well-being, however, does not exist. Recent results (de Lange, Taris, Kompier, Houtman, & Bongers, 2005; Mäkikangas, Feldt, & Kinnunen, 2007; Salanova, Bakker, & Llorens, 2006), have found the process of occupational well-being and working environments to be reciprocal rather than uni-directional. Thus, employees with poor well-being tend to perceive their working environment by applying the negative perceptual cycle. In contrast, employees with high level of engagement tend to apply the positive perceptual cycle. The causal role of occupational well-being in regard to recovery strategies, life satisfaction and environmental factors clearly merit more research attention. The present research contributes to meeting this need.

During the last few decades, the research on occupational well-being has shifted from an exclusive concern with burnout towards an interest in both burnout and work engagement (Bakker, Schaufeli, Leiter, & Taris, 2008). One of the future tasks of positive psychology in the study of work engagement, is to learn more about the role of positive experiences and relationships with others in individual well-being (Gable & Haidt, 2005). However, burnout remains a potentially serious problem in organizations both at present and in the future (Shirom, 2010). Experiences of burnout have severe consequences for both individuals and organizations by decreasing commitment, and increasing turnover intentions and health care costs (Halbesleben & Buckley, 2004; Schaufeli, 2003). Previously, the Health 2000 Study (Ahola, Honkonen, Kalimo, Nykyri, Aromaa, & Lönnqvist, 2004) reported that some 20% of Finnish employees experience burnout. The Study of Work and Health in Finland (Hakanen & Seppälä, 2013), in turn, found that nearly 90% of Finnish employees experience work engagement every month. The changing nature of careers has extended the focus also to include a less frequently examined concept, namely workaholism (Humbert & Lewis, 2008; Lewis & Smithson, 2006). No prior studies have clarified the

simultaneous development of burnout, work engagement and workaholism over time. It was one of the aims of the present research.

Overall, this research aimed to shed more light, first, on the interactive role in burnout (i.e. exhaustion, cynicism and professional efficacy) of the six areas of worklife (workload, control, rewards, sense of community, fairness and values), and achievement and social strategies (achievement optimism and pessimism, and social optimism and pessimism). Surprisingly, despite of the interactive nature of the relationship between the employee and the work environment/organization in burnout these relationships has rarely been tested simultaneously (Kalimo, 2005). Second, this research focused on gender differences in young employees´ burnout, and associations of new-comers' burnout with experiences of the six areas of worklife and achievement and social strategies. Third, this research applied a life-span model of motivation in research on subjective well-being at work during career, and the outcomes of subjective well-being at work. Taken together, this research took a comprehensive perspective on occupational well-being by longitudinally examining the three characterizations of subjective well-being at work – burnout, work engagement and workaholism. Finally, life-span model of motivation has to a great extent focused on adolescence and early adulthood, the present research ought to shed more light on life stages by applying model from university to the early and mid-career. The framework of the present research is presented in Figure I.
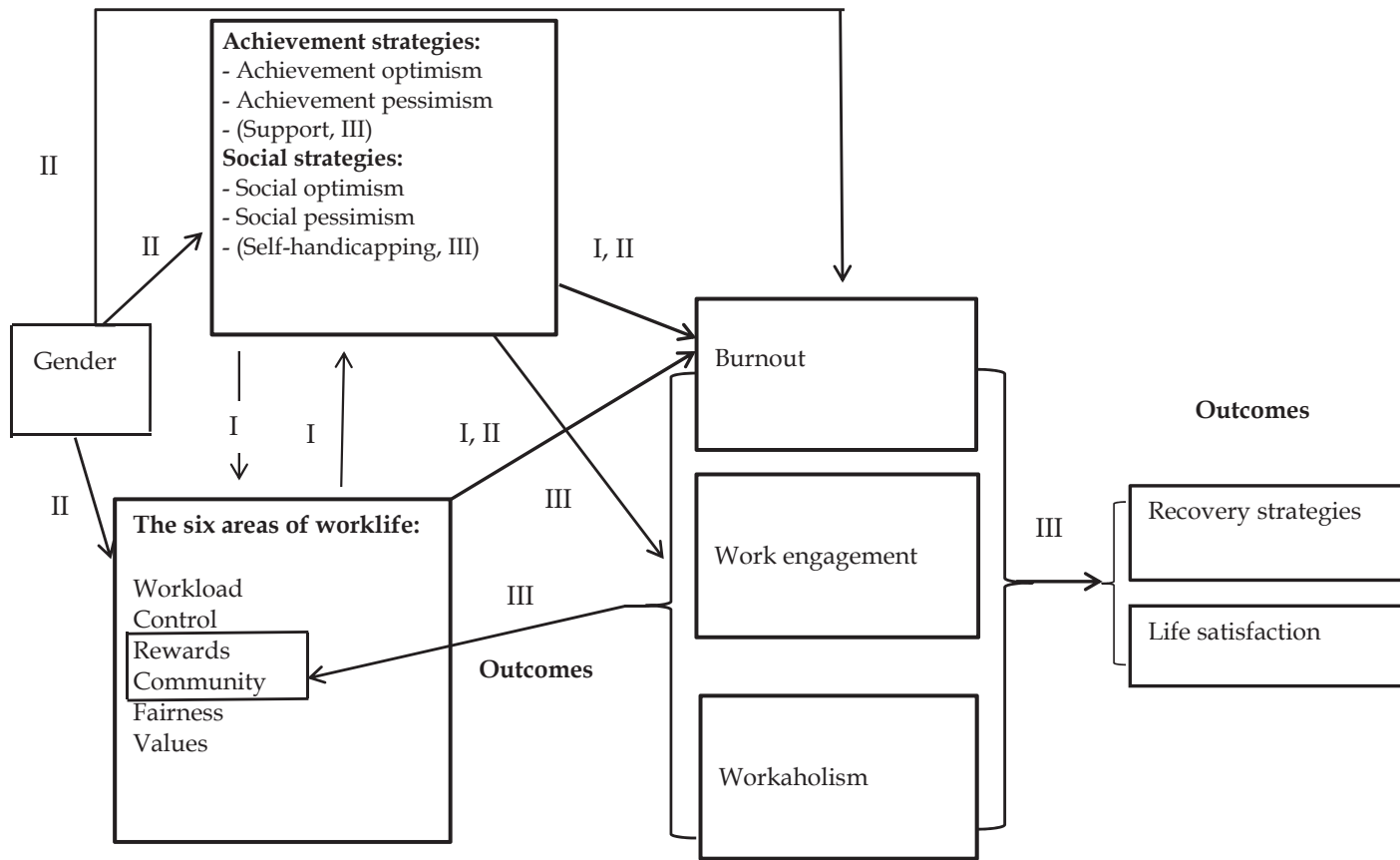
FIGURE 1   The framework of the present research. Roman numerals (I, II, III) show the relations examined in the three sub-studies

1.1   Conceptualization of occupational well-being

1.1.1   The theory of Person–Organization fit

Previously important work characteristics in occupational well-being have been examined by applying various models and theories, among which the most important are the Job Strain Model or Demand-Control Model (Karasek & Theorell, 1990), the Effort-Reward Imbalance Theory (ERI) (Siegrist, 1996), the theory of Person-Organization fit (P-O fit; Kristof-Brown et al., 2005), and the Social Exchange Theory of burnout (for a review, see Schaufeli, 2006).

In the first two studies of the present research the theory of Person-Organization fit (P-O fit; Kristof-Brown et al., 2005; Verquer, Beehr, & Wagner, 2003) and the Social Exchange Theory (Schaufeli, 2006) were applied. P-O fit is a type of Person-Environment (P-E) fit, in which people may fit or misfit with their organization (Judge & Kristof-Brown, 2004; Kristof, 1996). P-O fit is defined as the "compatibility between people and organizations that comes into existence, when at least one entity provides what the other needs or they share similar fundamental characteristics or both" (Kristof, 1996; Kristof-Brown et al., 2005). Employees' desires, goals, values, and abilities characterize their needs in this relation. Desires, goals, values and abilities, in turn, are based on employees' competence and experiences (Edwards, 1991). The P-O fit approach characterizes occupational stress and burnout as a lack of fit between the individual factors and the environmental factors (Eulberg, Weekley, & Bhagat, 1988). Based on the P-O fit approach, the antecedents of burnout include organizational, occupational, and individual factors (Maslach et al., 2001). The interactive nature of the development of burnout, according to the general stress theories, demonstrates that all these factors have an effect on the relationship (Maslach et al., 2001). Despite the interactive nature of the relationship between the employee and the work/organization this relationship has rarely been tested (Kalimo, 2005). The Social Exchange Theory, in turn, assumes that burnout develops primarily within the social and interpersonal context of the work organization (Buunk & Schaufeli, 1993). Maslach (1993) focused on the demanding interpersonal relationship between a provider and the recipients. Because in their relationship the provider and the recipient have different expectations of each other, this complimentary relationship forms the basis of the exchange relationship between them. Reciprocal social relationships play a key role in individuals' life and well-being (Buunk & Schaufeli, 1999). Consequently, the way individuals perceive, interpret and construct the behaviors of others at work (i.e. co-workers and customers) defines their well-being. The present research applied the P-O fit approach in the first two studies, since it characterizes occupational stress and burnout as a lack of fit between the individual factors and the environmental factors (Eulberg, Weekley, & Bhagat, 1988).

1.1.2 Circumplex model of subjective well-being at work

In the third study, the recent circumplex model of subjective well-being at work was applied to gain a deeper understanding of the longitudinal profiles of subjective well-being at work from a person-oriented perspective (Bakker & Oerlemans, 2011). Traditionally, subjective well-being at work has referred to how an individual evaluates his or her life and well-being (Diener, Sandvik, & Pavot, 1991). In line with this definition the recent model (Bakker & Oerlemans, 2011) (see Figure 2) assumes that affective states of subjective well-being at work arise along two continua: the pleasure–displeasure continuum and the high activation–low activation continuum. These affective states can be described as a linear combination of these continua, that is, of pleasure and activation (see also Russell, 2009). Consequently, the level of simultaneous activation and pleasure defines an employee's subjective well-being at work. More specifically, in the circumplex model of subjective well-being at work (Bakker & Oerlemans, 2011), the quadrant characterized by positive emotions and high activation is likely to result in work engagement, and the quadrant characterized by positive emotions and low activation is likely to result in job satisfaction. Further, the quadrant that is characterized by negative emotions and low activation is likely to result in burnout, and the quadrant characterized by negative emotions and high activation is likely to result in workaholism.

Salanova, Del Libano, Llorens, and Schaufeli (2014) have confirmed the validity of the circumflex model of employee wellbeing. They showed that engaged and workaholic employees experienced the highest levels of energy, engaged employees experienced the most pleasure, and workaholics and employees suffering from burnout experienced the least pleasure at work. This means that work engagement is an appropriate way, whereas workaholism is an injurious way to work hard. Burnout and workaholism, in turn, are the two unpleasant and vulnerable ways to experience emotions at work. The present research focused on the three quadrants (burnout, work engagement and workaholism) in Study III, since these quadrants were relevant for the aims of the present research. The approach of this research is supported by the current view of burnout and work engagement on the basis of both Finnish and international studies. The current view is that positive and negative states of subjective well-being at work represent different phenomena that employees can nevertheless experience simultaneously (Folkman, 2008; Hakanen, Bakker, & Demerouti, 2005; Schaufeli et al., 2002; Schaufeli, Taris, & Van Rhenen, 2007).

HIGH ACTIVATION

| | Work engagement |
| Workaholism | |
UNPLEASANT   PLEASANT
| Burnout | Job satisfaction |

LOW ACTIVATION
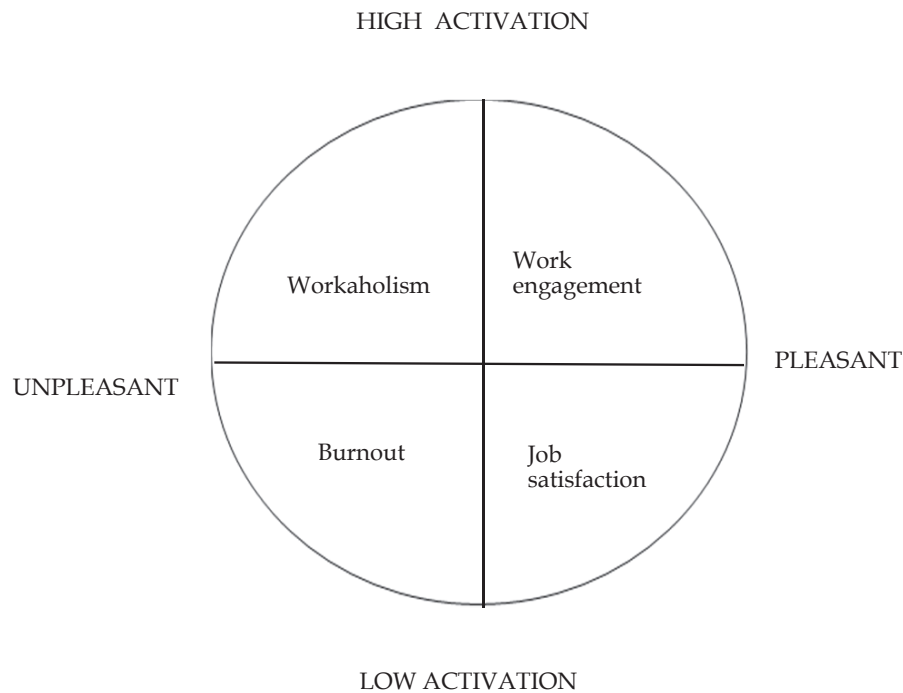
FIGURE 2   A two dimensional view of work-related subjective well-being (adapted from Bakker & Oerlemans, 2011). A simplified model.

1.1.3 Burnout

Research on occupational well-being began in the 1970s, when stress research focused on the role of psychosocial stressors in working environments on individual well-being at work (Karasek & Theorell, 1990). The concept of burnout was first applied in clinical work as the burnout syndrome. Burnout was defined as a mental disorder related to intra-personal conflicts, dysfunctional personality traits, and dysfunctional coping patterns (Freudenberger, 1974). Social psychologists, in turn, examined interpersonal, social, and organizational factors as causes of burnout in human occupations, such as nursing, teaching and social work (Maslach, 1976). In the 1990s research on burnout expanded from human work to all occupations, for example management and technology (Maslach, Schaufeli, & Leiter, 2001). Thus, all intense work requiring creativity, problem solving, and high innovativeness was considered to be predisposed to experiences of burnout (Schaufeli et al., 2009).

Burnout syndrome is characterized by three dimensions: exhaustion (a lack of mental energy), cynicism (negative attitude towards work and co-workers) and lack of professional efficacy (belief that one is no longer effective at work). This three-dimensional model deploys individual strain experiences in the social context of the workplace and involves the individual's conception

of both self and others (Maslach, 1993). Traditionally, exhaustion and cynicism have been characterized as the key components of burnout, while lack of professional efficacy has been to some extent associated with the other two dimensions (Lee & Ashforth, 1996). In line with this definition, Green Walkey and Taylor (1991) called exhaustion and cynicism "the core of burnout", since the combination of exhaustion and cynicism described burnout well. Professional efficacy, instead, was related to the meaning and quality of work (Enzmann, 2005) and, thus, reflected a personality characteristic rather than dimension of burnout (Shirom, 2003). Furthermore, Toppinen-Tanner (2011) has recently confirmed, that lack of professional efficacy develops in parallel to exhaustion and cynicism.

Recent research has presented the causes of burnout to reside in reciprocal relationships between organizational, occupational, and individual characteristics (Kalimo, 2005, Schaufeli, 2003). These findings are in line with previous results (Maslach et al., 2001), according to which burnout develops after a longitudinal misfit between the employee and the environment. For example, an employee's continuing exposure to excessively demanding working conditions, such as work overload and interpersonal conflicts, led to emotional exhaustion as a result of prolonged physical, affective, and cognitive strain (Demerouti, Bakker, Vardakou, & Kantas, 2003). Generally, mental demands, role conflicts, emotional demands and workload have been suggested as primary causes of burnout (Bakker & Demerouti, 2007). In contrast, social support and autonomy at work protected against cynicism and supported well-being and professional efficacy (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Leiter, 1991). Previously burnout has also been found to be related to personal outcomes such as depression and health problems, and organizational outcomes, such as absenteeism, job turnover, poor performance, and low quality of services (Schaufeli & Enzmann, 1998, pp. 85–93).

1.1.4   Work engagement

The positive psychology approach focused on the conditions and processes that contribute to the flourishing or optimal functioning of people and institutions (Seligman & Csikszentmihalyi, 2000). This emerging psychological view extended the perspective from burnout to the positive side of occupational well-being, namely work engagement (Bakker et al., 2008). Traditionally, Maslach and Leiter (1997) defined work engagement as the direct opposite of burnout in the same continuum, whereas Schaufeli, Salanova, González-Romá, and Bakker (2002) defined it as an independent structure negatively related to burnout. In the present research, work engagement is defined according to the definition by Schaufeli and his colleagues (Schaufeli et al., 2002). According to this characterization work engagement is a multi-dimensional construct defined by energy, dedication and absorption (Schaufeli & Bakker, 2010; Schaufeli & Salanova, 2011). Energy means high levels of drive while working. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, and challenge. Absorption, in turn, is characterized by being fully

concentrated and happily engrossed in one's work, so that time passes quickly and one may have difficulties detaching from work (Schaufeli & Bakker, 2004).

According to Schaufeli and his colleagues (Schaufeli et al., 2002), occupational well-being has two underlying bipolar dimensions activation and identification. Activation refers to a continuum from exhaustion to vigor, and identification a continuum from cynicism to dedication (Schaufeli & Bakker, 2004). Absorption, as an independent property is not regarded as the opposite of lack of professional efficacy. These constructs are considered conceptually as distinct components of occupational well-being (Schaufeli et al., 2002). The fact that work engagement in the present research is not conceptualized as the opposite of burnout, but as an independent structure, means that work engagement and burnout can to some extent occur simultaneously. Consequently, an employee can feel emotional exhaustion and yet be full of energy, or be to some extent cynical and dedicated at the same time. Thus, this approach enables occupational well-being, i.e. simultaneous burnout, work engagement, and workaholism to be examined by means of latent profiles.

Recently Macey and Schneider (2008) indicated that work engagement is closely related to motivation, which means that it is equally strongly related to performance. Engaged employees experience a high level of connectivity with their work, and strive toward task-related goals which in turn lead to high levels of task performance (Christian, Carza, & Slaughter, 2011), and support employees' perceptions that their work is meaningful (Kahn, 1990). Engaged employees are likely to perform their tasks more efficiently and effectively. They also will be more likely to create a social context suitable for teamwork, for example by helping each other, i.e. through behaviors that can lead to organizational effectiveness (Podsakoff, Whiting, Podsakoff, & Blume 2009). For example, several studies have reported an association between work engagement and high task and contextual performance (Bakker, Demerouti, & Verbeke, 2004). Engaged employees, further, invent new ways of thinking and acting, and are also well organized, careful, and hard working (Bakker, Tims, & Derks, 2012). These features, in turn, are related to active learning and proactive behavior (Bakker et al., 2012, Bakker, Demerouti, & Sanz-Vergel, 2014). Engaged employees were able to meet the demands they faced in an organization (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007), and believed in good outcomes in life, such as satisfaction of their needs (Mauno, Kinnunen, & Ruokolainen, 2007). Highly educated employees have been shown to experience positive feedback and sense of control over their work, and relatively high work engagement (Pines, 1993). As was demonstrated in the recent study of Changqin, Hai-jiang, Jing-jing, Dan-yang, and Bakker (2014), work engagement is related, through job crafting, to person-job fit, and consequently to low risk for burnout. In line with the current view in positive psychology (Linley, Joseph, Harrington, & Wood, 2006), the present research adopted an interactive perspective on and examined burnout, work engagement and workaholism, and their simultaneous longitudinal development.

1.1.5 Workaholism

The third characterization of occupational well-being is workaholism, which has been defined in several ways (Shimazu & Schaufeli, 2009). Scott, Moore, and Miceli (1997) introduced three different types of workaholism, namely compulsive-dependent, perfectionist, and achievement-oriented workaholism. Compulsive-dependent workaholism and perfectionist workaholism increased anxiety, stress, and physical and psychological problems and decreased job performance and life satisfaction. Achievement-oriented workaholism, in turn, increased physical and psychological health, job performance and life satisfaction. Previously Cantarow (1979) characterized workaholism as the joy of creativity, involvement and satisfaction through work, i.e., with terms that are typical also used to describe work engagement (see Burke, Richardsen, & Mortinussen, 2004). Generally, workaholism has been widely conceptualized as a tendency to work excessively hard (the behavioral component), being obsessed with work and being unwillingness to disengage from work (the cognitive component) (McMillan & O'Driscoll, 2004; McMillan, O'Driscoll, Marsh, & Brady, 2001). According to definition of Oates (1971) the present research expected to find addiction as the key concept in workaholism, and consequently measured workaholism with questions related to experiences of addiction and compulsiveness (see also Berglass, 2013). Addiction refers to compulsion to work, loss of self-control, long lasting extreme work engagement (Oates, 1971), changeless behaviors that have harmful consequences (Porter, 1996; Smith & Seymour, 2004), and ignorance of other areas of life (Schaufeli, Taris, & Bakker, 2008).

Interestingly, the concepts of work engagement and workaholism share similar characteristics, such as a heavy investment in work that is driven by a strong sense of involvement with the job (work engagement) or a strong inner desire to work very hard (workaholism) (Schaufeli, Taris, & Bakker, 2006). Respectively, some previous studies have suggested that workaholism may play a key role in the development of burnout (Maslach, 1986; Porter, 2001). When excessive, long-lasting work engagement leads to an imbalance between giving and receiving, employees seemed to experience burnout (Bakker, Albrecht, & Leiter, 2011; Cropanzano & Mitchell, 2005). Work engagement, in turn, is characterized by high involvement in work, but also by working long hours and deep absorption in work, thereby raising the question that work engagement and workaholism may be overlapping concepts. Previous research has, however, indicated that engaged employees differ from workaholics in job satisfaction (Gorgievski & Hobfoll, 2008), experiencing their work as meaningful (Kahn, 1990; Schaufeli et al., 2002), and having no addiction to work (Gorgievski, Bakker, & Schaufeli, 2010). Engaged employees, instead, value leisure time as well (Bakker et al., 2011). In line with Schaufeli and Salanova (2011) Van Beek, Hu, Schaufeli, Taris, and Schreurs (2011) distinguished work engagement and workaholism by defining work engagement as primarily characterized by intrinsic motivation and workaholism as characterized by extrinsic motivation (i.e.

by social approval). Consequently, engaged employees are motivated by a strong need for growth and development, whereas workaholic employees are motivated by a strong need for security and the prevention of mistakes (Bakker et al., 2012).

1.2 Occupational well-being during the career

Career stage is of relevance in the longitudinal examination of employees' experiences of occupational well-being. Recent Finnish studies on burnout and job satisfaction have reported a significant role for both career stage and gender in occupational well-being. The highest burnout levels were found among women in the early and late career stages. Among men, the highest burnout was found in mid-career (Ahola, Honkonen, Virtanen, Aromaa, & Lönnqvist, 2008). Furthermore, job satisfaction was found to be at its highest in the early and late career stages and the lowest in mid-career (Lehtonen, 2013). To examine the role of career stage in occupational well-being, this research applied the life-span model of motivation (for example, Salmela-Aro & Nurmi, 2004), according to which individuals experience different developmental environments and tasks depending on their age seeking to adapt to change (also Van den Heuvel et al., 2013). Havighurst (1980) proposed, in his traditional theory of developmental tasks, that coping with the tasks of a given life stage provides the basis for coping at the next life stage. The model is guided by the life course theory of human development (Bronfenbrenner, 1979). The life course approach emphasizes that human development is influenced by individual agency, timing of events and linked lives in a sociohistorical context (Elder, 1998). One of the key concepts of the life span model concerns the transitions or changes from one stage to another, for example from education to work. The life-span model of motivation is in abundance applied in studies of adolescents' aspirations for the future. Aspirations direct their spending of time and energy when confronting developmental tasks: education and preparing for working life (Havighurst, 1953). The present research aimed to follow this approach by examining individual ways to cope with tasks in the transition from high education to the early career stage and from the early to mid-career stages (see also Dietrich, Parker, & Salmela-Aro, 2012). In support of this approach Super (1980, 1990), in his theory of careers, showed that, during different life stages, individuals accomplish developmental tasks as part of their career decision-making process, and that success in these is related to their experiences of occupational well-being. Career stages that have been identified are exploration (age 14 to 24), establishment (age 25 to 44), maintenance (age 45 to 60), and disengagement (age 61 or older) (Greenhaus, Callanan, & Godshalk, 2009; Super, 1990).

Many of the transitions in an individual's life span take several years to complete (Mäkikangas et al., 2007). For example, a career development trajectory typically includes decisions concerning both education and the further career

(Dietrich et al., 2012). Occupational motivation, engagement and the active pursuit of career goals during education predicted the likelihood of finding employment and were also related to high levels of well-being (Haase, Heckhausen, & Silbereisen, 2012; Nurmi, Salmela-Aro, & Koivisto, 2002). Furthermore, a long follow-up period is needed for gaining a comprehensive understanding of the role of career stages in occupational well-being (Mäkikangas, Feldt, & Kinnunen, 2007). Hence, in applying the circumplex model of subjective well-being at work (Bakker & Oerlemans, 2011), the present research focused on the early career (i.e. establishment stage) and on the mid-career (i.e. maintenance stage), since we assumed these career stages to be relevant for emerging burnout, work engagement and workaholism.

At the early career stage, young employees experience many developmental tasks, such as fitting in with the organization and learning the job. Simultaneously, they have other developmental tasks, such as being a spouse and a parent (Super, 1990). Having many simultaneous career-related tasks at this career stage may cause some young employees to experience burnout. Similarly, in pursuit of work-related achievements, some young employees may experience workaholism as a consequence of expending a lot of energy on work (Sonnentag & Zijlstra, 2006). Focusing excessively on work is related to a low level of occupational well-being (Burke, 2000; Porter, 2001; Salmela-Aro & Nurmi, 2004). Some young employees may be able to cope well with the developmental tasks associated with this career stage and hence experience work engagement (Salmela-Aro & Nurmi, 2004). At the mid-career stage, in turn, employees might maintain work engagement by successfully accomplishing career-related developmental tasks, i.e. work-related development that further supports career plateauing. However, for some employees the developmental tasks of the mid-career stage and simultaneous early signs of their own obsolescence may induce experiences of burnout and workaholism (Greenhaus et al., 2009, Super, 1990). The role of areas of worklife is relevant in experiences of individual well-being.

1.3 Areas of worklife and burnout

1.3.1 The six areas of worklife as antecedents of burnout

Traditionally, researchers have classified the antecedents of burnout and work engagement into two general categories: situational factors (for example, work overload, job autonomy) and individual factors (for example, neuroticism, self-efficacy) (Bakker & Demerouti 2008; Demerouti, Bakker, Nachreiner, & Ebbinghaus, 2002; Maslach et al. 2001; Richardsen, Burke, & Leiter, 1992). In order to get a deeper understanding of the role of the six areas of worklife and individual factors in burnout, the present research applied the theory of P-O fit, which concerns the compatibility between people and organizations. This individual–organizational similarity is the key factor determining P-O fit, since individuals perform successfully in organizations that share their personalities (Kristoff,

1996). P-O fit or misfit is the starting point for defining the six critical determinants of burnout applied in the present research (Leiter & Maslach, 1999; Maslach & Leiter, 2008b). The six areas of worklife presented by Maslach and Leiter (1997) have been used to conceptualize the critical environmental factors related to burnout and work engagement (Bakker et al., 2011; Maslach & Leiter, 1997).

The present research focused on the role of the six areas of worklife as predictors in burnout in Studies I and II. The six areas of worklife are characterized as follows: workload (quantitative overload), control (sense of autonomy), rewards (institutional or social), community (social support), fairness (equality at work), and values (congruent individual and organizational values) (Leiter & Maslach, 1999). In Study III, in turn, the present research focused on the two social areas of worklife (rewards and sense of community) as outcomes of occupational well-being. Previous results have indubitably shown the strong relation between work overload and burnout (Hakanen, Bakker, & Schaufeli, 2006), particularly exhaustion (Greenglass, Burke, & Fiksenbaum, 2001). In contrast, control over uncertainties in the workplace have increased employees' energy (Leiter & Maslach, 2005), and lack of control over one's work has been linked to professional inefficacy (Glass & McKnight, 1996), and to exhaustion (Leiter, Gasgón, & Martinez-Jarreta, 2010). Employees with insufficient rewards tend to burn out (Leiter & Maslach, 1999, 2004), since misfit between employees' expectations and received rewards is significantly related to burnout (Euwema, Kop, & Bakker, 2004). In particular, rewards had plaid a strong role in women´s experiences of achievements and in occupational stress (Abele, Spurk, & Volmer, 2011).

Sense of community means the overall quality of social interaction at work. Leiter and Maslach (2004), for example, indicated that people will commit, when they share values, comfort and humor with co-workers. Research on community orientation has demonstrated that burnout is less likely to emerge in a positive and supportive workplace environment (Leiter & Maslach, 1999; Maslach & Leiter, 1997;). Previous results have shown that sense of community prevents exhaustion (Richer, Blanchard, & Vallerand, 2002), and acts to maintain work engagement (Bakker & Demerouti, 2008). Fairness, in turn, defines the extent to which employees experience decision making as fair and their treatment as respectful. Unfairness means an inequitable workload or salary (Leiter & Maslach, 2004; Moliner, Martinez-Tur, Peiro, Ramos, & Cropanzano, 2005), leads to feelings of imbalance in social exchange between an employee and the organization (Cropanzano & Mitchell, 2005). This imbalance predicts burnout (Bakker, Schaufeli, Sixma, Bosveld, & van Dierendonck, 2000). Experiences of fairness, instead, prevent exhaustion and cynicism (Elovainio, Kivimäki, & Vahtera, 2002; Elovainio, van den Bos, Linna, Kivimäki, Ala-Mursula, Pentti, & Vahtera, 2005).

Finally, value congruence, defined as the inner motivating relations between an employee and the organization (Leiter & Maslach, 2004), is a key factor in employees' experiences of P-O fit (Cable & Edwards, 2004; Lindblom,

Linton, Fedeli, & Bryngelsson, 2006). Value incongruence, in contrast, and thus one's sense of meaninglessness at work reduces energy, commitment to work and professional efficacy (Leiter, & Maslach, 1999). Longitudinal research has previously shown the important role of the P-O fit and the six areas of worklife in emerging burnout. A high score on one of the dimensions of burnout has been shown to be an early warning indicator of someone at risk for burnout, but only among those employees who reported a P–O misfit in at least one of the six areas of worklife (Maslach & Leiter, 2008).

Various methods have been used to examine the role of working environments in burnout and work engagement. These studies have reported, for example, associations between different dimensions of burnout and work overload (Bakker, Demerouti, & Euwema, 2005) and lack of sense of community, such as lack of social support (Lindblom et al., 2006). Furthermore, there is some longitudinal evidence, that role conflicts (Lee & Ashforth, 1996), lack of rewards (Kalimo et al., 2003; Leiter & Maslach, 2009), and lack of social support (Maslach & Jackson, 2007) are antecedents of burnout. The majority of the previous studies have, however, used only some rather than all the six areas of worklife in examining the context of burnout (Demerouti et al., 2002; Euwema et al., 2004). Studies focusing on all the six areas of worklife in the same study when examining burnout (Leiter & Maslach, 2004, 2009) or burnout and work engagement (Greco, Spence Laschinger, & Wong, 2006; Leiter et al., 2010) are rather rare. Furthermore, some of them Greco et al., (2006), Leiter & Maslach (2009), and Leiter et al., (2010), for example, focused on one occupation, which thus limited the generalizability of the results.

1.3.2   Social areas of worklife as outcomes of subjective well-being at work

The present research focused on the two specific social areas of worklife, i.e. rewards and sense of community as outcomes of occupational well-being. These social areas of worklife were assumed to be relevant for the present research, since the participants in Study III were social science graduates and worked in occupations characterized demanding social relationships such as teaching, researching and social work. Recent studies on relational approaches to job design (Grant, 2007, 2008; Grant & Parker, 2009) have emphasized the role of the social context of work (i.e. interpersonal interactions) that is embedded in and influenced by the jobs, roles, and tasks that employees perform. Recently, employees' level of subjective well-being at work has been shown to have an impact on their experiences of the social areas of worklife, such as sense of community (Bakker et al., 2011). In line with Fredrickson (2001), Schaufeli and Bakker (2004) demonstrated that positive emotions are vehicles for social connection, making it more likely for an employee to approach people. Thus, engaged employees have been more likely to show organizational citizenship behaviors and sense of community than their less engaged co-workers (Bakker et al., 2011). Furthermore, it is notable that in previous studies workaholic employees have not reported more experiences of rewards for their intensive efforts at work than their co-workers (Burke, 2000).

Coping with career-related tasks may pose a challenge to employees' well-being and existing experiences of working life (Karasek & Theorell, 1990). Thus, experiences of working environments may predict level of subjective well-being at work, which in turn may predict experiences of working environments later on (Bakker et al., 2011). Applying the circumplex model of subjective well-being at work, Bakker and Oerlemans (2011), found an association between work engagement and various positive outcomes. Consequently, interaction between experiences of the six areas of worklife and subjective well-being at work can be expected to be reciprocal. In the present research, it was expected, both theoretically and in light of previous results (de Lange et al., 2005; Mäkikangas et al., 2007; Salanova et al., 2006), that the relation between the psychological process of subjective well-being at work and experiences of working environments, would be reciprocal rather than uni-directional. For example, depressive employees with poor subjective well-being at work tended to perceive their working environment negatively as a consequence of applying the negative perceptual cycle, known as the ''gloomy perception mechanism.'' In contrast, employees with high levels of engagement and comfort might report positively on their working environment by implementing the positive perceptual cycle, known as the ''rosy perception mechanism'' (de Lange et al., 2005). Engaged employees thus optimize their working environment (i.e. job crafting) (see Bakker, 2011; Tims & Bakker, 2010). This notion is also in line with the Conservation of Resources (COR) theory (see Hobfol & Shirom, 2001).

1.4   Achievement and social strategies in occupational well-being

Motivation has been thought to play an important role in employees' well-being (Mauno et al., 2007; Salmela-Aro & Nurmi, 2004). According to the life-span models of motivation the challenges, and opportunities individuals experience at particular developmental stages of their lives channel their perceptions (Van den Heuvel et al., 2010) and personal goals (Little et al., 2007; Nurmi, 1992) over the life stage in question; these, in turn, influencing the ways in which people direct their development (Brandtstädter, 1984). These perceptions and goals are also related to subjective well-being at work later at the early career stage (Heckhausen et al., 2013). Further, the social cognitive theory of personality (Bandura, 1997) proposes that the cognitive and behavioral strategies are related to the extent to which individuals are able to cope with different challenges in social life domains (Nurmi & Salmela-Aro, 1997). Demerouti et al., 2001) also showed that task-related resources (skills, task significance, autonomy, and feedback) have an impact on motivation.

In order to shed more light on individual-related factors in occupational well-being, this research focused on individual differences in experiences of occupational well-being through the beliefs and strategies employees use in coping with challenges and demands at work (Xanthopoulou et al., 2007). Individuals' cognitive and behavioral patterns and expectations are based on their

experiences, and they function as the basis for the effort employees invest in future situations (Onatsu-Arvilommi & Nurmi, 2000). Previous research has emphasized the role of individual differences on the one hand in success and thus in well-being (Hall, 2002), and in the other hand in failures and the likelihood of deprivation (Masten, Roisman, Long, Burt, Obradovic, Riley, Boelcke-Stennes, & Tellegen, 2005).

The cognitive and behavioral patterns that accompany adaptations to the different situations have been defined as cognitive and attributional strategies (Nurmi et al., 1995). These, in turn, can be divided into achievement (achievement optimism, achievement pessimism and achievement support strategy) and social strategies (social optimism, social pessimism and social self-handicapping). Individual antecedents have received less attention than environmental antecedents of occupational well-being (Swider & Zimmerman, 2010). Previously, many studies have found a relationship between personality factors and burnout (Maslach et al., 2001; Schaufeli & Enzmann, 1998; Swider & Zimmerman, 2010), work engagement (Luthans, Norman, Avolio, & Avey, 2008), and workaholism (Burke, Matthiesen, & Pallesen, 2006).

The present research applied the strategy approach by examining achievement and social strategies as antecedents of exhaustion, cynicism and professional efficacy (Studies I and II), and as antecedents of the longitudinal profiles of subjective well-being at work (burnout, work engagement and workaholism) (Study III). In Study III the role of achievement and social strategies were also examined during the career. A less frequently examined achievement support strategy, in this research examined in Study III, in turn, refers expectations of support from co-workers and supervisors in tasks (Nurmi et al., 1995). In an early study, optimistic achievement strategies (functional) were positively directed towards tasks, whereas pessimistic strategies (dysfunctional) were characterized by achievement pessimism (Eronen et al., 1997). Previously, it has been shown that optimism is related to work engagement (Bakker, van Emmerik, & Euwema, 2006; Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Engaged employees used their individual resources, such as optimism and active coping style, to control the work environment and achieve career success (Luthans et al., 2008). Furthermore, active problem-solving (Schaufeli & Enzmann, 1998; Wilk & Moynihan, 2005), optimism (Lee & Ashforth, 1993; Mäkikangas & Kinnunen, 2003; Scheier, Carver, & Bridges, 2001), and expectations of positive outcomes (Seligman & Csikszentmihalyi, 2000) have been shown to support a high level of professional efficacy (Lee & Ashforth, 1996; Salmela-Aro, Tolvanen, & Nurmi, 2009). Academic achievement optimism, for example, was found to be a basis for further success in life (Aunola, Stattin, & Nurmi, 2000), since by planning, decision-making, and problem solving individuals may acquire career adaptive resources (Savickas, Brown, & Lent, 2005). Most studies applying the strategy approach have been conducted in academic contexts and in achievement situations (Aunola et al. 2000; Nurmi, Aunola, Salmela-Aro, & Lindroos, 2002) with only rare expectations focusing on social situations and worklife (Salmela-Aro, Tolvanen, & Nurmi, 2011). Previ-

ous results have shown evidence that both achievement and social strategies during studies can predict burnout and work engagement in the early career (Salmela-Aro et al., 2009, 2011). No findings on the role of achievement and social strategies as antecedents of workaholism have been published to date.

Social optimism has been characterized by expectations of positive outcomes in social situations (Eronen, 2000), and social pessimism by social withdrawal, negative feelings in social situations, and actions that are not related to the situation in question (Eronen & Nurmi, 1999; Eronen et al., 1997; Nurmi & Salmela-Aro, 1997; Nurmi, Toivonen, Salmela-Aro, & Eronen, 1997). Self-handicapping, in turn, refers to feelings of social anxiety in social situations (Aspinfall & Taylor, 1992; Snyder, Smith, Augelli, & Ingram, 1985). In particular, positive social interaction (Leiter & Maslach, 2000) and social competence (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009; Xanthopoulou et al., 2007), were related to work engagement. In line with these findings Masten, Desjardins, McCormick, Kuo and Long (2010) emphasized the stability of early social competence and its role in predicting social success in later worklife. Social optimism increased social self-efficacy beliefs, which in turn led to high career performance (see Betz, 2004). Social pessimism in student life, in turn, may decrease later subjective well-being at work (see Mudrack, 2006; Mudrack & Naughton, 2001).

Previously, the deployment of achievement (Nurmi et al., 2003) and social strategies (Caspi, Bem, & Elder, 1989) has shown stability over time, since a specific behavior strengthens similar behavior in future situations (Eronen & Nurmi 1999). Hence, supportive environments can change employees' pessimistic strategies to more optimistic ones (Eronen et al., 1997). Furthermore, Baron and Kenny (1986) and Kenny, Kashy, and Bolger (1998) have suggested a mediator effect for individual factors between environmental factors and well-being. Such a mediator effect for strategies would be observed in the present research (Study I), if a significant correlation existed between the six areas of worklife variable and the burnout dimension, or between the six areas of worklife variable and the strategy variable, or if the strategy variable significantly explained the dimension of burnout, after controlling for the strategy variables. To gain a deeper understanding of the role of achievement and social strategies in burnout, work engagement and workaholism, this research focused not only on the simultaneous role of achievement and social strategies and areas of worklife in burnout, but also on the role of achievement and social strategies as possible mediators between the six areas of worklife and the dimensions of burnout (Study I). Furthermore, the present research focused on the role of achievement and social strategies in the transition from education to work as antecedents of the longitudinal profiles of subjective well-being at work, and their relations to the profiles of subjective during the career.

1.5   The role of gender in burnout

The gender role theory (Eagly, 1987; Eagly & Wood, 1982) has emphasized that women are more likely to experience emotional fatigue (i.e. emotional exhaustion) because they learn to show their emotions, while men are more likely to withdraw under stress (i.e., cynicism) because they learn to hide their emotions. Given the previous contradictory results on the role of gender in burnout, this research focused on gender in the relations between the six areas of worklife, achievement and social strategies, and burnout at the early career stage (Study II). Eccles (2011) recently emphasized that social experiences and gender-role beliefs may have a longitudinal influence on the life span through their impact on individuals´ expectations and task values. Thus, the early career is an important stage in employee's further experiences of occupational well-being. Previously, women have been shown to experience more emotional exhaustion than men, and men more cynicism (Maslach, et al., 2001; Purvanova & Muros, 2010) and higher professional efficacy than women (Leiter & Maslach, 2004). As stated earlier, a recent Finnish study on burnout found an effect of gender on burnout, with the highest levels of burnout occurring among the youngest and the oldest working women, i.e. in the early and late career stages. Among men, in turn, the highest burnout was found among middle-aged employees, i.e. in the mid-career stage (Ahola et al., 2008). To shed more light on the role of gender in the emergence of burnout during the career, this research focused on exhaustion, cynicism and professional efficacy among young female and male employees.

Previous research on areas of worklife from the gender perspective, has shown, first, that men generally report a higher perceptions of workload, control and fairness than women, whereas women tend to experience higher value congruence with their organization (Leiter & Maslach, 2004). Price and Spence (1994), along with Greenglass (1991) have suggested, furthermore, that primary sources of burnout are different between men and women. Thus, higher cynicism among men might be partly a result of a perceived masculine gender role, such as strong achievement at work (Eccles, 2011). Perceptions of work overload and role ambiguity (uncertainty of tasks), in turn, would be primary sources of exhaustion among men, whereas among women, exhaustion and cynicism would be caused by both work and home-based stressors (Price & Spence, 1994; Greenglass, 1991). Home-based stressors might be the reason for high burnout among young and old Finnish working women, and work-related factors, such as high need for success, for high burnout among middle-aged men (Ahola et al., 2008). Bildt and Michélsen (2002), in turn, suggested that differences in occupational well-being between the sexes might be results of different cultural settings. For example, among women, low rewards and low social support, and thus lack of community, were related to burnout in an American context. In contrast, gender differences in the relationships between areas of worklife and burnout in a European context were low (Bildt & Michélsen, 2002).

Second, gender might have impact on occupational well-being through motivation, as manifested in achievement and social strategies. For example, in a recent study optimism was negatively related to exhaustion among men (Mäkikangas & Kinnunen, 2003). Furthermore, optimism moderated the relationships between time pressures, job insecurity and poor organizational climate on mental distress and fatigue among women (Mäkikangas & Kinnunen, 2003). Surprisingly only one study has examined gender differences in social strategies. This study was conducted in a different cultural context and among adolescents (Sondaite & Zukauskiene, 2005). The results showed that, in early adolescence, social pessimism was characterized by a higher level of social withdrawal in girls than boys. The present research focused on the role of gender in the associations between the six areas of worklife, achievement and social strategies, and burnout at the early career stage in order to gain a deeper understanding of early interventions to improve occupational well-being. A focus on the early career stage (from age 18 to 30 years) was deemed important, since previous results, which have focused on occupational well-being after age 30, have suggested that more attention should be paid to the role of gender in occupational well-being (Ahola et al., 2008). Notably, one´s career may play an important role in work-related demands and resources and in developmental tasks (Greenhaus et al., 2009; Super, 1980, 1990) and thus in subjective well-being at work (Bakker & Oerlemans, 2011).

1.6 Associations of subjective well-being at work with recovery strategies and life satisfaction

The present research focused on recovery, since examining recovery is new and relevant approach in research on occupational well-being. Furthermore, recovery has been examined mostly as an antecedent of occupational well-being (Sonnentag & Fritz, 2007). Some studies have focused on the role of recovery as a mediator between working environments and occupational well-being (Kinnunen, Feldt, Siltaloppi, & Sonnentag, 2011), examined associations between work environments and recovery (Kinnunen & Feldt, 2013) or examined recovery as an outcome of effort-reward imbalance (Feldt, Huhtala, Kinnunen, Hyvönen, Mäkikangas, & Sonnentag, 2013). Only few studies have focused on reciprocal relations between recovery and occupational well-being (Sonnentag, Mojza, Demerouti, & Bakker, 2012).

Recovery is characterized as a process of psychophysiological unwinding after exposure to demands and stressors (Geurts & Sonnentag, 2006). Recovery strategies are described as detachment, relaxation, mastery, and control. Employees use these strategies, when seeking to recover from demands at work and to maintain their personal resources (Sonnentag & Fritz, 2007). Psychological detachment refers to the ability to psychologically detach from work (Sonnentag, Kuttler, & Fritz, 2010). Poor psychological detachment has been associ-

ated with exhaustion, and mastery with work engagement (Siltaloppi, Kinnunen, & Feldt, 2009). Relaxation refers to positive relaxation experiences, mastery to off-job activities and challenging experiences, by such means as learning new skills during leisure time, and control to an employee´s ability to choose leisure actions (Sonnentag & Fritz, 2007). Recovery has been observed to be an important variable in a hypothetical causal string of events between the development of work-related stress and experiences of psychological overload in the longer run (Sluiter, van der Beek, & Frings-Dresen, 1999). Previous studies have also shown that recovery experiences are associated with low levels of exhaustion, representing the fatigue factor in burnout and with high levels of vigor, representing energy and power in work engagement (Sonnentag et al., 2012; Sonnentag et al., 2010; Sonnentag & Niessen, 2008).

The present research took a novel approach to the study of recovery by examining recovery strategies as outcomes of subjective well-being at work. Previously, McEwen (1998) showed that in line the theory of chronic stress and cumulative fatigue continuing stress and burnout may lead to lack of recovery strategies. It was expected that as a result of allostatic load i.e. stemming from exposure to repeated or chronic stress, an employee's ability to experience successful recovery is reduced. This assumption is also in line with the Conservation of Resources theory (COR) (Hobfol & Shirom, 2001), according to which employee try to protect against resource loss, recover from losses, and regain resources. Seen in this light, workaholic employees could have few opportunities to recover adequately from their work (Van Beek et al., 2011). They not only work excessively, but also think constantly about their work, even when they are not working (Schaufeli, Shimazu, & Taris, 2009). In line with findings of Bakker and Oerlemans (2011), who found an association between work engagement and job satisfaction as an outcome, this research assumed a positive association would emerge between work engagement and successful recovery.

Furthermore, experiences of the extent to which life satisfies individuals' physical and psychological needs define life satisfaction (Diener, Emmons, Larssen, & Griffin, 1985; Rice 1984). According to the self-determination theory, fulfilment of basic psychological needs, such as experiences of autonomy and relatedness, would predict a high level of life satisfaction (Ryan, 2000). Recently, Hakanen and Schaufeli (2012) found, further, in their longitudinal study, that burnout predicted depressive symptoms and life dissatisfaction, whereas engagement predicted life satisfaction over time (see also Hayes & Weathington, 2007).

1.7 Aims of the research

This research had three main aims: first, to examine the role of achievement and social strategies, and the six areas of worklife in relation to exhaustion, cynicism and professional efficacy; second, to examine gender differences in relations between personal strategies, areas of worklife and burnout at the early career

stage; third, to examine the longitudinal profiles of subjective well-being at work, and achievement and social strategies as antecedents, and recovery strategies, life satisfaction, and the two social areas of work life, i.e. rewards and sense of community, as outcomes of these subjective well-being at work - profiles.

Study I examined the extent to which the six areas of worklife and achievement and social strategies were related to burnout, and the possible mediating role of achievement and social strategies between the six areas of worklife (workload, control over one's work, rewards, sense of community, fairness, and values) and the dimensions of burnout. Altogether six hypotheses were set:

Hypothesis 1.1a: Achievement optimism and social optimism predict less exhaustion and cynicism and higher professional efficacy (Salmela-Aro et al., 2009, 2011).

Hypothesis 1.1b: Achievement optimism is related in particular to professional efficacy (Scheier et al., 2001), whereas achievement and social pessimism are related to exhaustion and cynicism (Salmela-Aro et al., 2009, 2011).

Hypothesis 1.2a: The six areas of worklife are related to burnout, and of these areas of worklife, work overload is the most strongly related to exhaustion (Greenglass et al., 2001).

Hypothesis 1.2b: Rewards in particular is related to professional efficacy (Maslach et al., 2001).

Hypothesis 1.3a: The six areas of worklife (i.e. environmental factors at work) are more strongly related to exhaustion and cynicism than achievement and social strategies (i.e. individual differences) (Schaufeli & Enzmann, 1998). Achievement and social strategies as individual factors, in turn, are more related to professional efficacy than environmental factors, such as the six areas of worklife (Wang, Liu, & Wang, 2013**).**

Hypothesis 1.3b: Achievement and social strategies mediate between the six areas of worklife and burnout, since the cause of burnout emerges in the interaction between people and work (Bakker et al., 2011; Maslach & Leiter, 1997, Salmela-Aro & Nurmi, 2004).

Study II examined gender differences in exhaustion, cynicism and professional efficacy, and further in achievement and social strategies, and in the six areas of worklife among young employees (N = 378) in the early career stage. The relations between personal strategies, the six areas of worklife and dimensions of burnout were examined separately among young men and women. Four hypotheses were set:

Hypothesis 2.1: In line with gender role theory (Eagly, 1987; Eagly & Wood, 1982) young men experience higher levels of cynicism and professional efficacy than women, while young women experience higher levels of emotional exhaustion than men (see also Maslach, et al., 2001, Leiter & Maslach, 2004).

Hypothesis 2.2a: Owing to the high stability shown in strategies and experiences of gender roles, men can be expected to score higher in achievement optimism then women (Eagly, 1987; Eccles, 2011) and women score higher in social pessimism than men (Sondaite & Zukauskiene, 2005).

Hypothesis 2.2b: Achievement and social strategies are related to dimensions of job burnout in both sexes (Salmela-Aro et al., 2009, 2011). Since the role of achievements at work has been shown to be higher among men than among women (Eagly, 1987; Eccless, 2011), and achievement optimism has been shown to be related to a high level of professional efficacy (Salmela-Aro et al., 2009), the relation between achievement optimism and professional efficacy will be more significant among men than among women. Since women have been shown to experience higher levels of social pessimism (Sondaite & Zukauskiene, 2005) in adolescence and social pessimism has predicted exhaustion and cynicism (Salmela-Aro et al., 2011), the relation between achievement pessimism and both exhaustion and cynicism is likely to be more significant among young women than among young men.

Hypothesis 2.3b: Men have a higher sense of P-O fit in workload, control and fairness than women, while women have a higher sense of P-O fit in value congruence than men (Leiter & Maslach, 1999). Further, gender differences in the levels of sense of community and rewards would not be statistically significant (Leiter & Maslach, 2004).

Hypothesis 2.3c: Rewards have a stronger preventive role against burnout among women than among men, since rewards play a strong role in women´s experiences of achievements and in occupational stress. On this reasoning, fairness, which shares some qualities with rewards, can be expected to prevent exhaustion and cynicism more among women more than among men (Abele et al., 2011). Finally, since professional efficacy is related to the experienced meaning of work (Enzmann, 2005; Kahn, 1990) and has been suggested to reflect a personality characteristic more than dimension of burnout (Shirom, 2003), experiences of fairness will not be statistically not related to professional efficacy in either women or men during the early career stage (Bildt & Michelsen, 2002; Moliner et al., 2005).

Study III applying a person-oriented approach, examined subjective well-being at work, defined by burnout, work engagement, workaholism, who had graduated in social sciences from a large university. First, the study applied a person-oriented approach to identify longitudinal profiles of subjective well-

being at work. Second, the study examined achievement and social strategies as antecedents of membership of the subjective well-being at work profiles, and the links between these strategies and the longitudinal profiles of subjective well-being at work during the career. Third, the study examined recovery strategies and life satisfaction, and the two social areas of worklife (i.e. rewards and sense of community) as outcomes of the profiles of subjective well-being at work. Because of the exploratory role of the main research aim of the study, exact hypotheses were not set. The expectations were:

1. The majority of the highly educated employees report experiences of high engagement and the minority of the employees report burnout (75% of the participants were women) (Ahola et al., 2004; Hakanen & Seppälä, 2013; Xanthopoulou et al., 2013). The frequency of experiences of workaholism was not expected, as the prevalence of workaholism has not been examined in Finland to day. Because workaholism and burnout are the negative quadrants in the circle of Bakker and Oerlemans (2011) workaholism was expected to be higher among employees reporting burnout in the study.

2. Achievement and social optimism and expectations of achievement support in the transition from university to work are related to further well-being at work (Little et al., 2007; Nurmi, 1992; Scheier & Carver , 2001; Super, 1990), while achievement and social pessimism and social self-handicapping are related to burnout (Aspinwall & Taylor, 1992; Salmela-Aro et al., 2009, 2011), or workaholism (Berglass, 2013).

3. Cumulative fatigue and chronic stress and thus loss of resources lead to lack of recovery strategies (Hobfol & Shirom, 2001; McEwen, 1998). Membership of the high work engagement profile, in turn, predict a high level of life satisfaction (Hakanen, & Schaufeli, 2012; Hayes & Weathington, 2007; Ryan, 2000). Finally, it was expected that employees with poor subjective well-being at work perceive rewards and sense of community negatively as a consequence of applying the negative perceptual cycle. Employees with high levels of work engagement report positively on rewards and sense of community by implementing the positive perceptual cycle (de Lange et al., 2004), job crafting (Bakker et al., 2011; Tims & Bakker, 2010), and cumulative positive cycle (see also Masten et al., 2005).

2 METHOD

2.1 Samples and participants

The first two studies (Studies I and II) reported in the present research were based on the sample gathered from clients of occupational health care services. The data were gathered in 2001. The aim of both studies was to examine employees' achievement and social strategies, the six areas of worklife and dimensions of burnout. The third study (Study III) was based on the ongoing Helsinki Longitudinal University Student Study (HELS) (since 1991). The HELS study started when the participants were in post comprehensive schooling and facing the transition to university and subsequently to worklife. The study has followed the participants in their progress from youth to adulthood with the aim of examining achievement and social strategies, goals, and well-being in academic studies and later in worklife.

Studies I and II

In Study I the data (Sample 1) were gathered from clients of occupational health care services employed in four organizations: an information technology company (11%, N = 187), a health care organization (27%, N = 467), a university (16%, N = 285), and a logistics organization (46%, N = 807). The majority (66%) were women. The age of the subjects ranged between 18 and 63 years (M = 40.6, SD = 10.1 years). Of the respondents, 84% had a vocational school or college, and 16% a university or professional college education. A supervisory position was held by 10 % of the respondents.

The subjects in Study II were employees in the early stage of their career from the same four organizations: an information technology company (N= 85; 22%), health care organization (N = 39; 10%), a university (N = 86; 22%), and a logistics organization (N= 176; 46%), The majority (56%) of the study's subjects were women. The mean age of both the male and female subjects was 26 years (SD =3.11/men; 3.19/women). The questionnaires were returned by 55% of the

employees. Of the respondents 52% had a vocational school or college educa-tion, and 14% a university or professional college education. A supervisory po-sition was held by 4% of the respondents.

Study III

In Study III, the data drawn from the Helsinki Longitudinal University Student Study were analyzed (Sample 2). In this study, all the available participants (N = 161; 54.8%) from the original sample (N = 292) were measured at three points: first during the transition from university to work, second during the early career and third in mid-career.

Attrition analysis indicated that the final sample (N = 161) did not differ in gender from non-respondents (N = 131). Of those who dropped out during the transition from university to work, five refused to participate, 30 had an un-known address and 12 had moved abroad. The other participants who dropped out of the study had shown less progress during their last university years than those who continued to participate (M = 22.85, SD = 14.11; $t(297)$ = −3.35, p < .001). The participants in the final sample at Times 2 and 3 did not differ from those who left the study after T1 (n = 313) in gender [$\chi^2(1)$ = 1.095, ns] or age [$t(314)$ = .378, ns]. The participants in the final sample were less prone to social optimism than those who left the study after T1 [$t(188)$ = −2.134, p < .05]. No significant differences emerged between the final sample and those who left the study after T1 to exhaustion [$t(165)$ = 1.584, ns], cynicism [$t(162)$ = 1.010, ns], or professional efficacy [$t(163)$ = 1.338, ns]. Work engagement and workaholism were not measured at T1.

TABLE 1   Measurement points, participation rates and career stages in Study III

Time 1	Time 2	Time 3
2001	2005	2011
Transition to worklife	Early career	Mid-career
N = 118	N = 161	N = 161
73. 3% [1]	55. 1% [2]	55. 1% [2]
Age = 28 – 35	Age = 32 – 39	Age = 38 – 45

[1] The participants of the study sample who were reached (N = 161).
[2] The participants of the original sample who were reached (N = 292)

2.2 Attrition analysis

The attrition analysis used in Study III indicated that the final sample, 161 employees, did not differ in gender from non-respondents (N = 131). The participants who dropped out of the study had shown less progress during their last university years than those who continued to participate (M=22.85, SD=14.11; t (297) = −3.35, p<.001). The participants in the final sample at Times 2 and 3 did not differ from those who left the study after T1 (n = 313) in either gender [χ^2(1) = 1.095, ns] or age [t(314) = .378, ns]. The participants in the final sample were less prone to social optimism than those who left the study after T1 ([t(188) = −2.134, p < .05]. No significant differences emerged between the final sample and those who left the study after T1 in exhaustion [t(165) = 1,584, ns.], cynicism [t(162) = 1,010, ns], or professional efficacy [t(163) = 1,338, ns]. Work engagement and workaholism were not measured at T1.

2.3 Variables and statistical methods

In the different studies, diverse sets of variables and statistical methods were used. A summary of these variables and statistical methods are reported in Table 2.

In Study I, a mediator effect for achievement and social strategies between the six areas of worklife and the dimensions of burnout was examined. In order to do this, the correlations between the study variables have to be significant (see Baron & Kenny, 1986; Kenny et al., 1998). The correlations between the six areas of worklife factors and burnout, between the strategy factors and burnout and between the six areas of worklife factors and the strategy factors were all significant (Study I). The mediation effect of the strategy factors was examined by explaining first the dimensions of burnout with each of the six areas of work-life factors, and then by the strategy factors in the hierarchical linear regression analysis. Gender and age were controlled for in the first step. By changing the strategy factors into explanatory variables before the six areas of worklife factors, it was possible to observe whether or not achievement and social strategies exerted a mediator effect. If the associations observed between some of the six areas of worklife and burnout disappear and associations between some of the achievement and social strategies and burnout emerge, then the mediator effect of that achievement or social strategy is regarded as perfect. If the associations between some of the areas of worklife decrease, when strategies are controlled for, then the mediator effect of strategies is partial only.

Person-oriented analysis (Bergman & Trost, 2006; Muthén & Muthén, 2000) was used in Study III. The majority of the existing research on burnout and work engagement has taken a variable-oriented approach (for example Bakker et al., 2005; Freudenberger, 1974; Kahn, 1990; Maslach et al., 2009). The results of such studies have indicated, for example, that burnout (Hakanen & Schaufeli,

2012; Hakanen, Schaufeli, & Ahola, 2008), and work engagement (Schaufeli, Bakker, & van Rhenen, 2009; Seppälä, Mauno, Feldt, Hakanen, Kinnunen, & Tolvanen, 2009) are rather stable over time. Workaholism has been assumed to be more stable than work engagement (Gorgievski et al., 2010). However, a stability coefficient does not demonstrate the dynamic developmental processes of occupational well-being over time, which was the focus in the present research, and it also fails to take into account individual differences (see also Mäkikangas et al., 2007; Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012). A person-oriented approach, in turn, assumes population heterogeneity with respect to the phenomenon of interest (here subjective well-being at work) and changes in it (Laursen & Hoff, 2006). Such an approach may lend additional support to the theory of subjective well-being at work by taking into account diversity in subjective well-being at work on the individual level by identifying different groups of employees who follow a similar pattern of development of subjective well-being at work over time. A few previous studies have applied a person-oriented approach in the area of work and organizational psychology (Boersma & Lindblom, 2009; Feldt et al., 2013; Mäkikangas et al., 2007; Mäkikangas et al., 2012; Salmela-Aro & Nurmi, 2004).

More specifically, the person-oriented method focuses on the differences between individuals and on the typical patterns that are observed among sub-groups of individuals. Change in subjective well-being at work in the traditional variable-oriented way allows examining mean-level changes i.e. overall changes in the data. However, the person-oriented identification of different sub-groups in subjective well-being at work made it possible also to examine and better understand non-normative pathways and change (Bergman & El-Khouri, 2003). The present study contributes to the literature by adopting a person-oriented approach (Bergman & Trost, 2006; Laursen & Hoff, 2006) in order to gain a deeper understanding of longitudinal subjective well-being at work on the individual level. In Study III, a person-oriented statistical method, known as latent profile analysis (LPA), was used. LPA seeks to identify the smallest number of homogenous latent classes (profiles) that adequately describe the associations among the observed continuous variables (in this research burnout, work engagement, workaholism) (Muthén, 2004). The advantage of LPA over traditional cluster analysis is that it is model-based and thus permits the use of statistical criteria for deciding the number of latent classes for the core indicators in the present instance, subjective well-being at work. Employees with similar longitudinal profiles of burnout, workaholism, and work engagement were identified by using LPA (Vermunt & Magidson, 2002), applying the missing data method, where the program estimates the values of the participants at Time 3 from the values at Time 2. The estimation method used was maximum likelihood performed by Mplus program version 5.21 (Muthén & Muthén, 1998–2012).

TABLE 2   Summary of the variables and statistical methods used in Studies I – III

Study I	Sample	Variables	Statistical methods
The role of achievement and social strategies and work-life areas in job burnout	Sample 1a Information and communication technology (11 %, N = 187), health care organization (27 %, N = 467), university (16 %, N = 285), logistics organization (46%, N = 807)	Exhaustion (α=.90) Cynicism (α=.82) Professional efficacy (α=.80) Areas of worklife (α=.71,.68,.76,.74,.72,.74) Achievement optimism (α=.77) Achievement pessimism (α=.76) Social optimism (α=.65) Social pessimism (α=.64)	Hierarchical linear regression

Study II			
Gender differences in achievement and social strategies, areas of work life and burnout at the early career stage	Sample 1b ICT, (22%, N= 85), health care organization (10%, N = 39), university (22%, N = 86), logistics organization, (46%, N= 176)	Gender (m/f) Exhaustion (α=.88/.88) Cynicism (α=.85/.85) Professional efficacy (α=.77/.83) Areas of worklife (α=.77,.72,.70,.73,.68,.69/ .72,.71,.61,.78,.78,.75) Achievement optimism (α=.67/.69) Achievement pessimism (α=.76/.74) Social optimism (α=.77/.79) Social pessimism (α=.69/.72)	Hierarchical linear regression t-test

Study III			
	Sample 2		
Burnout, work engagement and workaholism among highly educated employees: Profiles, antecedents and outcomes	Helsinki University Longitudinal Student Study (N = 161)	Exhaustion (α=.86, .89) Cynicism (α=.75, .79) Professional efficacy (α=.70, .74) Vigor (α=.83, .83) Dedication (α=.87, .90) Absorption (α=.74, .78) Workaholism (α=.80, .84) Achievement optimism (α=.81) Achievement pessimism (α=.75) Achievement support (α=.85) Social optimism (α=.83) Social pessimism (α=.85) Self-handicapping (α=.85) Detachment (α=.60) Control (α=.90) Mastery (α=.71) Relaxation (α=.71) Rewards (α=.72) Community (α=.81) Life satisfaction (α=.84)	Longitudinal latent profile analysis (LPA), T2, T3 Bivariate logistic regression analysis, T1 Multivariate analysis of covariance (MANCOVA), T3 Multivariate analysis of covariance (MANCOVA) for repeated measures T2, T3 x^2 – difference test, T1, T2 *t-test*, T1, T2

3   OVERVIEW OF THE ORIGINAL STUDIES

3.1   Study I

The role of achievement and social strategies and areas of worklife in job burnout

The aim of Study I was to examine the extent to which achievement and social strategies and the six areas of worklife (workload, control, rewards, community, fairness, and values) are related to exhaustion, cynicism and professional efficacy. Further, this study examined a mediator effect for strategies between the six areas of worklife and exhaustion, cynicism and professional efficacy (see Baron & Kenny, 1986; Kenny et al., 1998). One thousand seven hundred sixty-four employees filled in questionnaires measuring their burnout, the six areas of worklife and achievement and social strategies. The subjects were employees from four organizations: a large logistics organization (46%, N = 807), a health care organization (27%, N = 467), a university (16%, N = 285), and a company in information and communication technology (ICT) (11%, N = 187)

The results of the hierarchical linear regression analysis showed, in line with the hypotheses, that achievement and social strategies were significantly related to exhaustion, cynicism and professional efficacy (Hypothesis 1.1a, Hypothesis 1.1b). The less employees used achievement and social optimism and the more they used achievement and social pessimism, the more emotional exhaustion they experienced, the more cynical they were and the lower their professional efficacy was, compared to employees, who used achievement and social optimism more and achievement and social pessimism less. Furthermore, when the six areas of worklife were set as explanatory variables before the achievement and social strategies, the six areas of worklife were significantly related to exhaustion, cynicism and professional efficacy (Hypothesis 1.2a): the higher the workload, the weaker one's possibilities to control one`s work, the lower the sense of community, and the more value conflicts there were between the employee and the organization, the more emotional exhaustion employees experienced, the more cynical they were and the lower their professional effica-

cy was, compared to employees who had an appropriate workload, possibilities to control their work, a stronger sense of community, and no value conflicts. As expected the strongest relation was between workload and exhaustion. In line with the hypothesis (Hypothesis 1.2b) rewards were strongly related to professional efficacy. However, sense of control and sense of community also strongly supported professional efficacy. In line with the hypothesis (Hypothesis 1.3a), the six areas of worklife were significantly related to the dimensions of burnout, even when the achievement and social strategies were controlled for. Overall, the results showed that the six areas of worklife were more strongly related than achievement and social strategies to cynicism, although they explained cynicism less when achievement and social strategies were controlled for. A mediator effect of the strategy factors between the six areas of worklife and the dimensions of burnout was found (Hypothesis 1.3b). The hierarchical linear regression analysis suggested generally that rewards was fully mediated by the strategy factors to exhaustion, the six areas of worklife factors were mediated by achievement optimism to cynicism and the six areas of worklife factors were mediated by social strategies to professional efficacy.
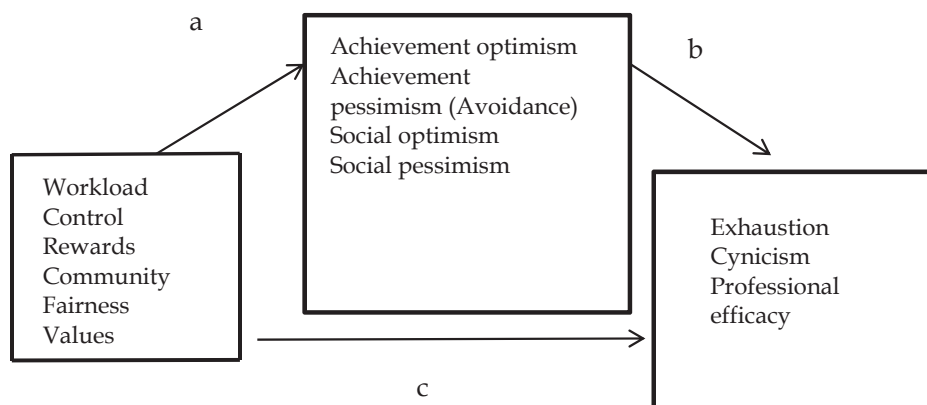
FIGURE 3   Regression model of relations between (a) the six areas of worklife and the strategy factors, (b) between personal strategies and burnout, and (c) between the six areas of worklife and burnout; and the mediating model of personal strategies between areas of worklife and burnout (a, b)

In further analyses, not included in the original publication, the statistical significance of the mediating effects of achievement and social strategies was examined in more detail by applying the model of burnout suggested by Leiter and Maslach (1988). The Sobel's test was used (Preacher & Leonardelli, 2006). The results showed that lack of achievement and social strategies mediated perfectly between rewards and exhaustion. Achievement and social strategies partially mediated, in particular, between workload, values and exhaustion, between workload, values and cynicism, and between rewards, community and professional efficacy (see Appendix 1).

3.2 Study II

Gender differences in achievement and social strategies, areas of work life, and burnout at the early career stage

Study II focused on gender differences in exhaustion, cynicism and professional efficacy, and further in achievement and social strategies, and in the six areas of worklife (workload, control, rewards, community, fairness, and values) among young employees during the early career stage. Second, this study examined the associations of achievement and social strategies, and of the six areas of worklife, with burnout, separately among young women and men in order to explore gender differences in these relations.

The subjects were employees in their early career from four organizations: an information technology company (N = 85; 22%), a health care organization (N = 39; 10%), a university (N = 86; 22%), and a logistics organization (N = 176; 46%). The participants were young employees drawn from the large data set applied in study I. Women were over-represented in health care (x^2 (3) = 15.63, p < .01) and men were over-represented in physical work (x^2 (2) = 6.27, p < .05). Hypothesis 2.1 was not confirmed. No gender differences in the levels of exhaustion, cynicism and professional efficacy were found. In line with the hypothesis (Hypothesis 2.2a), young men at the early career stage used more achievement optimism than the women, and the women used more achievement pessimism but also contrary to the hypothesis (Hypothesis 2.2a), more social optimism than the men. Further, as hypothesized (Hypothesis 2.2b), achievement and social strategies were related to exhaustion, cynicism and professional efficacy in both sexes but the significance of the associations differed from between them. The less achievement optimism the young men used, the more exhausted and cynical they were, while the less achievement pessimism they used, the more professional efficacy they experienced. The less achievement optimism the young women used, the more exhausted they were, while the more achievement optimism they used, the higher the sense of professional efficacy they had.

In line with the hypothesis (Hypothesis 2.3a), young men experienced more control over their work and fairness in the organization than the women. However, in regard to workload there were no gender differences. Contrary to the hypothesis (Hypothesis 2.3a), during the early career stage, no areas of worklife were rated higher by the women than men, and neither were there any gender differences (Hypothesis 2.3b) in the levels of sense of community and rewards. In line with the hypothesis (Hypothesis 2.3c) control, rewards, sense of community and value congruence with the organization were related to cynicism among women. Among men, instead, rewards and workload were related to exhaustion. Notably, rewards and value congruence were strongly related to professional efficacy among both sexes during the early career stage.
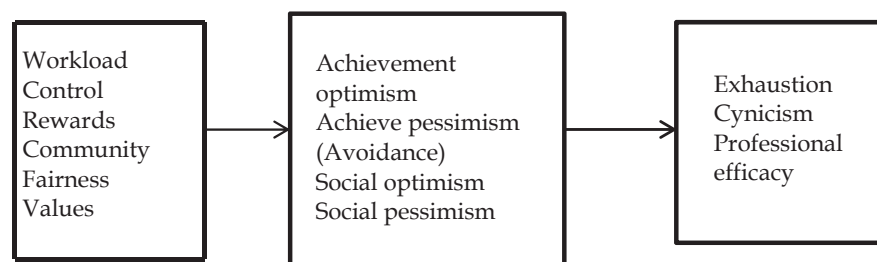
FIGURE 4   Design of study II. Analyses were performed separately for both sexes at the early career stage

3.3 Study III

Burnout, work engagement, and workaholism among highly educated employees: Profiles, antecedents and outcomes

Study III focused, first, on burnout, work engagement, and workaholism using latent profile analysis, and on stability or change in the profiles of subjective well-being at work from early to mid-career. Second, the study examined the role of achievement and social strategies as antecedents of the profile memberships, and the links between achievement and social strategies and the longitudinal profiles of subjective well-being at work in the early career and mid-career stages. Third, the study examined recovery strategies, life satisfaction, and social areas of worklife (i.e. rewards and sense of community) as outcomes of the profiles found.

Study III was part of the ongoing Helsinki Longitudinal University Student Study (HELS) (since 1991), and was conducted with the original sample of 292 university students (77 men, 215 women). Profiles of subjective well-being at work were measured at two time points, in 2005 (Time 2), and in 2011 (Time 3). All the respondents available at Time 2 (year 2005), 161 (40 men, 121 women (age 32 to 39 years; 54.8% of original sample), were included in the study. The same participants were examined using the Mplus estimating procedure for missing values at Time 3 (year 2011) (125 of the participants were the same at both measurement points). The antecedents of membership of the different subjective well-being at work profiles were measured in the transition from university to early career at Time 1 (year 2001), when the participants filled in the Strategy and Attribution Questionnaire (SAQ) (Nurmi, Salmela-Aro, Haavisto, 1995). Subsequently, at Times 2 and 3, the participants filled in the Work engagement (Schaufeli et al., 2002; Schaufeli, Bakker, & Salanova, 2006), Work Burnout (Maslach, Jackson, & Leiter, 1996), and Workaholism (Robinson, 1999) questionnaires. At Time 3 (year 2011), the participants also filled in the Recovery Strategy (Sonnentag & Fritz, 2007), Areas of Worklife (Leiter & Maslach, 2004) and Life Satisfaction (Diener et al., 1985) questionnaires.

Personal strategies Time 1

Longitudinal subjective well-being at work pro-
files from Time 2 to Time 3

Outcomes
Time 3

Achievement optimism
Achievement
pessimism (Avoidance)
Achievement
support
T1

Social optimism
Social pessimism
Self handicapping
T1

Burnout
T2

Workaholism
T2

Work
engagement
T2

Burnout
T 3

Workaholism
T 3

Work
engagement
T 3

Rewards
Community
T 3

Recovery strategies
T 3

Life satisfaction
T 3

Transition from university
to the early career stage
2001

Early career
2005

Mid-career
2011

FIGURE 5   Design of Study III. T1 = Time 1; T2 = Time 2; T3 = Time 3

With respect to the fit indices, the BIC value supported the two-class solution. Entropy was very good (.94) in the two-class solution, indicating that the two-class model provided a clear classification. On the basis of the above-described stability of the patterns as well as the information provided by the fit indices, a two-class solution for subsequent analyses was chosen. This choice was made for four reasons: first, the two-class solution included the theoretically meaningful subjective well-being at work-profiles, which remained unchanged in all the multiclass solutions; second, unlike the three- and four-class solutions, the two-class solution did not produce several profiles with few members; third, the two-class solution produced theoretically justified profiles; and fourth the average latent class probabilities for the most likely latent class membership by latent class showed good levels. The participants in the profile 1 (n = 136; 84%) reported high work engagement and professional efficacy, low cynicism and moderate workaholism. The participants in the profile 2 (n = 25; 16%) reported high exhaustion, low energy and rather high workaholism. In both profiles, the employees reported high levels of professional efficacy and absorption. These two subjective well-being at work profiles were labeled Engaged and Exhausted–Workaholic. Significant and stable differences between the profiles were found in the means of exhaustion, cynicism, energy, dedication, and workaholism. Decreasing workaholism was found in the Exhausted–Workaholic profile.

The results revealed that (Time 1) social pessimism was a significant antecedent of membership of the Exhausted–Workaholic profile (i.e. the high-risk profile for well-being). Furthermore, the results showed that achievement optimism at the early career stage, at Time 2, and at the mid-career stage, at Time 3, was negatively linked to membership of the Exhausted–Workaholic profile, showing the membership of Engaged profile. First, the employees in the Engaged profile, i.e. in the low-risk profile (see Feldt et al., 2012), reported more psychological detachment and relaxation than those in the Exhausted–Workaholic profile, i.e. in the high-risk profile. Experiences of mastery and control, however, did not differ between the two longitudinal subjective well-being at work profiles. Second, the employees in the Engaged profile reported significantly more life satisfaction and experiences of rewards than those in the Exhausted–Workaholic profile.

4   DISCUSSION

The aim of this research was to examine, first, the role of the six areas of worklife and achievement and social strategies in burnout, second, the role of gender in these relations,   third, the longitudinal occupational well-being profiles (burnout, work engagement, workaholism) that can be identified from early to mid-career, and finally the antecedents and outcomes of these profiles. No prior studies have simultaneously examined these individual and environmental variables in burnout in the same research. The present research added to the research literature by adopting a variable oriented approach to burnout in the first two studies and on a person-oriented approach to occupational well-being in the third study, and thus utilizing both variable- and person-oriented approaches. The present research applied, furthermore, the life-span model of motivation (Salmela-Aro & Nurmi, 2004; Van den Heuvel et al., 2010), according to which, during the life-span, individuals face different developmental environments and tasks. The model thus facilitated the research focus on the transition from education to work and the role of career stages in occupational well-being.

Overall, the results showed that both achievement and social strategies and the six areas of worklife were related to the dimensions of burnout (exhaustion, cynicism and professional efficacy). Achievement and social strategies had a mediator effect between the six areas of worklife and burnout. For example, insufficient reward reflected in the personal strategies by a reduction in the use of optimistic strategies and by an increase in achievement pessimism and social pessimism, which in turn increased exhaustion. Gender differences were observed in the levels of the six areas of worklife and achievement and social strategies. The results showed that men scored higher on control, and fairness than the women. Women rated no areas of work life higher than the men. Men scored higher on achievement optimism, and women on achievement pessimism and social optimism. No gender differences, however, were found in the dimensions of burnout, showing that both men and women experienced moderate exhaustion and cynicism and a rather good level of professional efficacy during the early career stage. Furthermore, the results revealed two longitudi-

nal profiles of subjective well-being at work: the Engaged profile and the Exhausted–Workaholic profile. The profiles of subjective well-being at work were found to be stable from early to mid-career. However, the level of workaholism decreased significantly in the Exhausted–Workaholic profile from early to mid-career. Social pessimism in the transition from university to work life was a significant antecedent of membership of the longitudinal Exhausted–Workaholic profile. During the early and mid-career stages, achievement optimism was negatively linked to the Exhausted–Workaholic profile, and supported membership of the Engaged profile. Finally, the members of Engaged profile experienced higher levels of detachment, relaxation, life satisfaction and rewards than their counterparts in the Exhausted–Workaholic profile.

4.1 Areas of worklife, achievement and social strategies and occupational well-being

4.1.1 The relations between the six areas of worklife, achievement and social strategies and burnout

The first aim of this research was by applying the P-O fit theory (Kristof-Brown et al., 2005) and the Social Exchange Theory (Cropanzano & Mitchell, 2005), to examine the extent to which the six areas of worklife (workload, control, rewards, sense of community, fairness and values) (Maslach et al., 2001, Leiter & Maslach, 1999) and achievement and social strategies (achievement optimism and achievement pessimism, social optimism and pessimism) were related to burnout. Furthermore the mediator effect of strategies between the six areas of worklife and dimensions of burnout was examined. The results were in line with the associations postulated both by the P-O fit theory (Kristoff, 1996) and by the Social Exchange Theory, which describes occupational well-being as reciprocal interdependence between the employee and the organization (Cropanzano & Mitchell, 2005). On the one hand, the six contextual areas of worklife played a significant role in occupational well-being. On the other hand, individual factors, such as achievement optimism and avoidance (Nurmi et al., 2002) and social optimism and pessimism (Eronen et al., 1997; Nurmi et al., 1997) were related to dimensions of burnout.

The main findings of the sample of employees aged from 18 to 63 years were, first, that lack of achievement and social optimism and a high use of achievement pessimism showed the most significant associations with exhaustion after controlling for age and gender. Achievement and social pessimism and lack of social optimism were related to cynicism, while achievement optimism and a low level of social pessimism were the strategies most related to professional efficacy. Second, the six areas of worklife were related to the dimensions of burnout as follows: excessive workload was related to all the dimensions of burnout, and the most significant association was with exhaustion. Having control over one's work, in turn, showed the strongest association with

professional efficacy, while lack of control was associated with both exhaustion and cynicism. These results were in line with the P-O fit theory (Kristof-Brown et al., 2005), according to which the antecedents of burnout comprise organizational, occupational, and individual factors (Maslach et al., 2001).

Notably, the results of the present research showed that the six areas of worklife were more strongly related to the dimensions of burnout than were achievement and social strategies. Value conflicts were strongly related to cynicism, and this relation remained even when controlled for strategies. This result showed the significant role of value conflicts between an employee and an organization in regard to emerging cynicism. The result emphasized, as has been stated earlier, the role of values as the inner motivating factor of an employee (Leiter & Maslach, 2004), and the key role in employees' experiences of P-O fit (Cable & Edwards, 2004, Maslach & Leiter, 2008). The lack of optimistic strategies and social pessimism acted partially as mediators between the six areas of worklife and cynicism.

Overall, these results are important, since they showed that, in seeking ways to prevent burnout in organizations, interventions should focus on creating more healthy environments, in which employees perceive their workload as appropriate, have control over their work, enjoy both intrinsic and extrinsic rewards, have a sense of community, perceive their treatment as fair, and feel that their values are congruent with those of the organization (see also Bakker et al., 2014; Kahn, 1990). Furthermore, in interventions, attention should also be paid to the achievement and social strategies that employee use. It is noteworthy that both achievement (Nurmi et al., 2002) and social strategies have shown stability over time (Caspi et al., 1989), since an existing behavior tends to strengthen similar behavior in the future (Eronen & Nurmi 1999). However, in favorable environments, individual strategies may undergo changes. Consequently, interventions in organizations could utilize the fact that supportive environments can cause employees with pessimistic strategies to change these in a more optimistic direction (Eronen et al., 1997; Fredrickson, 2001). Thus by paying attention to the six areas of worklife, it would be possible to improve overall reciprocal relationships and promote occupational well-being. Supportive environments seen in light of the six areas of worklife could, as was stated earlier, include an appropriate workload for learning new skills, possibilities to control one's work, gaining suitable rewards, functional interpersonal relationships, fair treatment, and congruent values between the employee and the organization (Leiter & Maslach, 2004). The results showed, in line with the P-O fit theory (Kristof-Brown et al., 2005), that the six areas of worklife (i.e. working environments) have a strong role in occupational well-being.

These results supported the life-span theory of motivation (Salmela-Aro & Nurmi, 2004), since when controlling for the strategy factors, achievement and social optimism remained significant. Thus, the achievement and social optimism that employees used in their working environments were negatively related to both exhaustion and cynicism, and supported professional efficacy even when experiences of the six areas of worklife were reported to be poor.

The results thus strengthened the previous findings (for example Lee & Ashforth, 1993; Wilk & Moynihan 2005; Salmela-Aro et al., 2009), according to which individual motivation and achievement optimism, such as active problem solving, is related to a low level of exhaustion and cynicism, and to a high level of professional efficacy. Achievement and social pessimism, in turn, mediated the negative effects of the six areas of worklife, strengthening burnout.

However, the model of burnout suggested by Leiter and Maslach (1988) presents burnout as a syndrome comprising three factors rather than three independent dimensions. Consequently, these inter-relationships were subjected to a thorough analysis, the outcome of which showed the distinct contribution of achievement and social strategies and the six areas of worklife in explaining exhaustion, cynicism and professional efficacy. The analysis was done by repeating the analyses of study I but adding exhaustion to the regression on cynicism and both exhaustion and cynicism to the regression on professional efficacy before the strategy factors and the six areas of worklife factors. Exhaustion was strongly related to cynicism and cynicism was negatively related to professional efficacy. The results for the mediating role of achievement and social strategies between the six areas of worklife and cynicism and professional efficacy remained largely the same as in Study I. These results contribute to the model of burnout (Leiter & Maslach, 1988), according to which exhaustion occurs first, leading to the development of cynicism, which leads subsequently to lack of professional efficacy. Stressful interactions in organizations increase employees' feelings of exhaustion. This in turn leads to cynicism, especially when social relationships in the organization are poor. If this cynicism persists, employees' feelings of professional efficacy diminish. Supportive contacts with co-workers may, however, help to decelerate this process (Leiter & Maslach, 1988).

Finally, applying the model of burnout suggested by Leiter and Maslach (1988) showed some further results. In line with the model, exhaustion was added to the regression on cynicism before achievement and social strategies and the six areas of worklife. Further exhaustion and cynicism was added to the regression on professional efficacy before achievement and social strategies and the six areas of worklife. Work overload, in particular, was strongly related to exhaustion, and this relation remained, even after controlling for achievement and social strategies. Exhaustion was strongly related to cynicism. Surprisingly, the relation of achievement optimism with cynicism disappeared when exhaustion was added to the model before the strategy factors and the six areas of worklife factors. When exhaustion and cynicism was added to the regression on professional efficacy, cynicism was strongly negatively related to professional efficacy. Concurrently, the association between social optimism and professional efficacy disappeared and an association between workload and professional efficacy emerged. Thus, as experiences of burnout progressed, the role of lack of achievement optimism in cynicism and social optimism in professional efficacy decreased. Furthermore, a negative role of work overload on professional efficacy emerged. This result added important further knowledge to the research area by showing, through the application the regression model, that the associa-

tions between exhaustion, cynicism and professional efficacy constituted a syndrome. This result suggests the need for intervention at the point where the first signs of burnout appear.

Furthermore, a mediator effect of achievement and social strategies was found between the six areas of worklife and the dimensions of burnout in study I (Baron & Kenny, 1986; Kenny et al., 1998). The use of social pessimism and lack of social optimism was a full mediator between lack of rewards and exhaustion. Importantly, insufficient rewards could lead to social pessimism and lack of social optimism, which increases experiences of exhaustion. This result showed the important role of sufficient rewards in seeking to decrease social pessimism and so prevent exhaustion in organizations. More specifically, when testing the mediator effects of strategies with the Sobel's test and applying the model of burnout suggested by Leiter and Maslach (1988) in further studies, it was possible more specifically to observe the significance of the mediating role both of achievement and of social strategies. First, achievement pessimism, lack of social optimism and social pessimism partially mediated between work overload and exhaustion; lack of achievement optimism and achievement and social pessimism mediated between lack of rewards and exhaustion; lack of achievement and social optimism mediated between lack of control and exhaustion; and lack of achievement optimism and social pessimism, mediated between lack of sense of community and exhaustion. Value conflicts and exhaustion in turn were mediated by lack of achievement and social optimism.

Second, when focusing on the six areas of worklife factors and cynicism the following mediation was observed: achievement pessimism, social pessimism and lack of social optimism mediated between work overload and cynicism; achievement and social pessimism mediated between lack of rewards and cynisim; lack of social optimism and social pessimism mediated between lack of control and cynicism; achievement pessimism and lack of social optimism mediated between value incongruence and cynicism. Social pessimism mediated lack of between sense of community and cynicism. Finally, achievement optimism, lack of achievement pessimism and lack of social pessimism mediated between rewards and professional efficacy, and achievement optimism and lack of social pessimism mediated between sense of community and professional efficacy. Finally, achievement optimism significantly mediated between control and professional efficacy, and lack of achievement pessimism between work overload and professional efficacy. Importantly the mediating role of social optimism between the six areas of worklife and professional efficacy disappeared when the model of burnout suggested by Leiter and Maslach (1998) was applied. Thus, in seeking to support professional efficacy, interventions need to focus on the syndrome of burnout (i.e. when the first signs of burnout emerge), and on personal strategies and the six areas of worklife. These results are important as they show that burnout is a syndrome composed of three aspects and that both achievement strategies and social strategies play a distinct role in exhaustion, cynicism and professional efficacy. The results of Studies I and II support the view that direct relationships exist between achievement and social

strategies as well as between the six areas of worklife and burnout. The relations between the areas of worklife and dimensions of burnout were also mainly partially mediated by achievement and social strategies (Study I).

4.1.2 Achievement and social strategies as antecedents and the two social areas of worklife as outcomes of longitudinal subjective well-being at work

The links between achievement and social strategies and subjective well-being at work were examined in Study III. The results revealed, first, the strong role of social pessimism, measured in the transition from university to work, as an antecedent of membership of the longitudinal Exhausted–Workaholic profile (i.e. the high-risk profile). This result was important, since it revealed the role of social pessimism as a risk-factor for young employees' further marginalization in working life. The result was in line with the findings of Bakker and Oerlemans (2011), according to which negative, unpleasant emotions and low expectations were related to poor subjective well-being at work, such as burnout. Importantly, this result supported the life-span models of motivation (Brandtstädter, 1984; Little et al., 2007), which posit that the expectations that young individuals have during the university study are related their later well-being in the early career (Heckhausen et al., 2013). This result adds to the previous findings (Salmela-Aro et al., 2011), according to which social pessimism predicted poor well-being in the early career, by showing the vulnerable role of social pessimism as an antecedent of the longitudinal Exhausted–Workaholic profile well into mid-career. The result emphasized that frequent social pessimism in student life, and thus fewer social relationships (see Mudrack, 2006; Mudrack & Naughton, 2001), may have far-reaching consequences for young adults' further subjective well-being at work. This result strongly suggests that further attention should be paid to motivation and adaptive social strategies in university studies, and in the transition from university to work in order to support subjective well-being at work and work engagement (Nurmi et al., 1995; Salmela-Aro & Nurmi, 2004). The results also showed that later on, in early and mid-career, achievement optimism was linked to membership of the Engaged profile. This result was strongly in line with the propositions of the life-span model of motivation (Salmela-Aro et al., 2009, 2011; Van Heuvel et al., 2013). These results suggest that motivation and successful coping in career-related tasks could increase positive expectations of outcomes, which, in turn, could support further achievement optimism and membership of the Engaged profile later on (Little et al., 2007; Salmela-Aro & Nurmi, 2004). Thus, optimistic attitudes in work-related achievement situations during the career enabled better adjustment to stressors (Aspinwall & Taylor, 1992; Karasek & Theorell, 1990).

Finally, Study III examined the social areas of worklife, i.e. rewards and sense of community, as outcomes of the longitudinal profiles of subjective well-being at work. The results supported the theoretical notion (de Lange et al., 2005) that individuals with poor well-being, as was the case in the Exhausted-

Workaholic profile, perceived their environment negatively, as a consequence of the negative perceptual cycle. Individuals in the Engaged profile, instead, perceived their working environments positively by implementing the positive perceptual cycle, and thus optimizing their work environment (Bakker et al., 2011; Tims & Bakker, 2010). They were able to reserve and add to their resources at work, and so maintain work engagement (see Bakker et al., 2011; Gorgievski & Hobfoll, 2008). Thus, subjective well-being at work could be a significant predictor of how employees experience the social areas of worklife, for example internal rewards such as a sense of work well-done and external rewards such as positive feedback from co-workers and supervisors (see also Richardsen et al., 1992).

Surprisingly, however, the present research did not show differences between the subjective well-being at work profiles in sense of community. The level of sense of community was rather high in the both profiles. One reason might be that highly educated employees in jobs that make high emotional demands, such as teaching and social work, as was the case in the present research, might experience sense of community as a result of these emotional demands in both the Engaged and the Exhausted–Workaholic profiles. Previously, lack of job resources in terms of lack of a sense of community, has generally been associated with a low level of professional efficacy (Bakker et al. 2004; Karasek & Theorell 1990). In the present research, however, the level of professional efficacy was rather high in both groups. Professional efficacy generally might support sense of community among highly educated employees. Overall, in interventions in organizations, employees' profile of subjective well-being at work would be a significant predictor of their performance at work, which, in turn, has obvious relevance for organizations' productiveness.

4.2 The role of gender in burnout

In line with the gender role theory (Eagly, 1987; Eagly & Wood, 1982) the present research examined gender differences in exhaustion, cynicism and professional efficacy, achievement and social strategies and the six areas of worklife during the early career stage (Study II). According to the gender role theory, as stated earlier, women should be more likely to experience emotional exhaustion, while men should be more likely to hide their emotions, withdraw under stress and experience feelings of cynicism (Eagly, 1987; Eagly & Wood, 1982). The associations of achievement and social strategies and the six areas of worklife with dimensions of burnout were also examined by gender in the present research to reveal gendered associations of individual strategies and of the six areas of worklife with burnout.

Gender differences have been examined in few studies separately for achievement and social strategies (Eccles, 2011; Sondaite & Zukauskiene, 2005), for the six areas of worklife (Leiter & Maslach, 2004), and for dimensions of burnout (Leiter & Maslach, 1999, 2004). Surprisingly, the present results re-

vealed no gender differences in exhaustion, cynicism and professional efficacy during the early career stage. The results showed, instead, that in the present sample of young Finnish employees, both men and women had moderate levels of exhaustion and cynicism and a rather high level of professional efficacy during the early career. This is an important result, since it may suggest that it is possible to maintain a moderate level of exhaustion and cynicism and a high level of professional efficacy among young employees of both sexes. This could be done by making high efforts to improve P–O fit by supporting positive individual and organizational factors immediately in the early career stage. This might be in line with Super's (1980, 1990) theory of careers, in which he showed that during different life stages individuals accomplish developmental tasks as part of their career decision-making process and that coping with these tasks led to a successful transition to the second career stage (see also Little et al., 2007).

The present research focused separately on levels of achievement and social strategies and the relations between achievement and social strategies and burnout among men and women in the early career stage in Study II. The men scored higher on achievement optimism than the women, and the women scored higher on achievement pessimism and social optimism than the men. The results of Study II did not support those found in other research fields and in other cultures by Sondaite and Zukauskiene (2005), who reported higher social withdrawal (i.e., social pessimism) among women than men. The results of the present research, instead, were in line with the results of Eccles (2011), according to which individual achievement and social factors influenced the effort and choices that individuals make in work life. The deployment of achievement and social strategies among men and women in the early career stage may be linked to cultural norms, values, and the gendered based expectations towards success in work life (see Eccles, 2011). Among men achievement optimism prevented both exhaustion and cynicism, whereas among women achievement optimism prevented emotional exhaustion. Further, among men the frequent use of achievement optimism and social optimism and the lesser use of achievement pessimism supported professional efficacy. Similarly, among women achievement optimism was also strongly related to professional efficacy in the early career. Consequently, the strong role of achievement optimism among young women could be one reason for the absence of gender differences in exhaustion, cynicism and professional efficacy in the present Finnish context. The results were also in line with previous results (Salmela-Aro et al., 2009, 2011; Wilk & Moynihan, 2005) by showing that active problem solving, optimism and expectations of success in general were negatively related to exhaustion and cynicism, and supported professional efficacy.

As already stated in connection with Study I, the results were in line with the theory of P-O fit (Eulberg et al., 1988; Judge & Kristof-Brown, 2004), suggesting that fit between the employee and the organization, such as in positive employee experiences of the six areas of worklife, could strongly support well-being in organizations. The present results revealed a strong role of appropriate

workload preventing exhaustion among both sexes in the early career stage. Satisfactory rewards, in turn, prevented cynicism and had a supportive influence on professional efficacy among young women. The role of rewards in young women's occupational well-being was an important result, since previous studies on this topic are rare. The few studies that have been conducted have focused solely on exhaustion and cynicism, implying a role for work overload as a primary source of exhaustion more among men. Among women, in turn, exhaustion and cynicism resulted from both work and home-based stressors (Greenglass, 1991; Price & Spence, 1994).

In Finland in 2013, 55% of the graduates from vocational education, and 57% of high school graduates were women. It may be that for young women, having a good education predicts expectations of success and rewards in worklife. Thus, among the present young women, receiving rewards for their high efforts and success in worklife led to a sense of having a good level of professional efficacy rather than feelings of work overload and consequent emotional exhaustion and cynicism. In contrast, young men in early career experienced a higher sense of control and perceived more fairness in the organization than their female peers. This result was in line with findings of Eccles (2011), according to which men, as a result of men's work-related gender role and strong need for achievements at work, were able to gain more control over their work and thus experienced greater fairness in the organization (see also Eagly, 1987; Eagly & Wood, 1982).

The results of Study II strongly underlined the negative relation between value congruence and cynicism and the supportive role of value congruence in professional efficacy in sexes. This result was in line with findings of Leiter and Maslach (2004), according to which value congruence was found to have a strong mediating role between experiences of the other areas of worklife and the dimensions of burnout. This result emphasized that employers need to provide a work environment where the level of value congruence between young employees and their organization needed for a high level of P-O fit can be realized (see Maslach & Leiter, 2008). Good P-O fit also means a high level of social exchange (Buunk & Schaufeli, 1993), which can be expected to be of benefit to the organization, and may also predict long-lasting careers.

The hierarchical linear regression analyses of Study II were repeated in further analyses to seek confirmation of the results found for the role of gender in burnout. This was done by adding the type of organization as a controlling variable to the hierarchical regression analysis and adding exhaustion to the regression on cynicism before the achievement and social strategies and areas of worklife. Exhaustion and cynicism in turn were added to the regression on professional efficacy before the strategy and the six areas of worklife variables (Leiter & Maslach, 1998). Achievement and social strategies and the six areas of worklife were added to the model concurrently to examine whether they would show a simultaneous relation with burnout. This was done to further illuminate the utility of the syndrome approach to burnout in different sectors of the labor market in the early career stages. The results not included in the original Study

II showed that type of organization was not related to exhaustion, cynicism or professional efficacy. Exhaustion predicted cynicism significantly and low levels of cynicism predicted professional efficacy among both sexes. The results did not support the role of the organization in burnout during the early career. The results contributed to the model of burnout as a syndrome presented (Leiter & Maslach, 1988). This is an important result as it points to the significant role of the early career stage as a target in preventing burnout among young male and female employees.

The results of the further analyses showed that when the strategy variables and the six areas of worklife variables were added to the model in the same step after controlling for the type of organization and exhaustion, only workload and control were significantly related to exhaustion among women. Further, exhaustion was strongly related to cynicism. The associations of the strategy variables and the six areas of worklife variables with cynicism remained the same. The relation between work overload and cynicism in turn increased and became significant among women, suggesting that exhaustion could increase the role of work overload also in cynicism among women. Further, cynicism was strongly negative related to professional efficacy. The associations between professional efficacy and the six areas of worklife mainly remained unchanged, although among men the previous slight association of professional efficacy with rewards and value congruence disappeared. Among women, work overload showed a significant negative association with professional efficacy. The role of exhaustion was observed to fluctuate in the associations of the six areas of worklife with cynicism, as also was the role of exhaustion and cynicism in the associations between the six areas of worklife and professional efficacy (Leiter & Maslach, 1988). These results supported the model of burnout as a syndrome suggested by Leiter and Maslach (1988).

4.3   Longitudinal subjective well-being at work profiles

By examining subjective well-being at work profiles in relation to the dimensions of burnout and work engagement, this research yielded important new knowledge on the heterogeneity that exists in these profiles. As earlier stated, this research applied the circumplex model of subjective well-being at work (Bakker & Oerlemans, 2011) by measuring experiences of burnout, work engagement and workaholism. The results of Study III supported the expectations that, as a whole, subjective well-being at work can, over time, include indicators from all three quadrants (Bakker & Oerlemans, 2011). The results contributed to the existing knowledge obtained from applying the circumplex model of subjective well-being at work by showing longitudinally that frequent positive emotions and fewer negative emotions, typical of work engagement, indicated membership of the Engaged profile. These employees were in state of activation in terms of high engagement, low burnout and moderate workaholism. The Engaged profile was characterized by high energy and dedication. Frequent nega-

tive emotions and fewer positive emotions, on the contrary, tend to be related to the Exhausted–Workaholic profile. The Exhausted–Workaholic profile was observed as a risk profile in terms of experiences of displeasure, and was characterized by high exhaustion, cynicism and a high level of workaholism. This result was in line with our expectations and with previous findings indicating that highly educated employees are likely to be classified in the Engaged profile (Xanthopoulou et al., 2013), and are likely to be work-engaged and committed to their organizations (Boersma & Lindblom, 2009; Pines, 1993). This result was also in line with general findings on burnout and work engagement in the Finnish working population (Ahola et al., 2004; Hakanen & Seppälä, 2013). One reason for the inclusion in the Engaged profile of the majority of the present sample of highly educated employees might also be their high level of education, as this may help them to pursue appropriate goals and maintain adaptive coping at different stages of their careers (see, for example, van Heuvel, 2010). This research supported recent findings by Salanova et al. (2014), according to which the validity of the circumflex model of employee wellbeing was confirmed. The present research, applying LPA analysis, added to their findings by showing that employees in the Engaged profile longitudinally experienced energy and pleasure along with, simultaneously, a moderate level of workaholism and a low level of burnout. Employees in the Exhausted–Workaholic profile, instead, experienced the least pleasure at work, suffering from a high level of burnout and workaholism, and a low level of work engagement. Theoretically this means that work engagement is a good way, and exacerbated workaholism a bad way to work hard. High burnout and workaholism are the most unpleasant and vulnerable ways of experiencing emotions at work.

Further, examination of the sub-dimensions of burnout and work engagement in the present research yielded significant new information in regard to longitudinal subjective well-being at work. Namely, significant differences in the levels of absorption and professional efficacy between the longitudinal Engaged and Exhausted–Workaholic profiles were not observed in Study III. Instead, the levels of absorption and professional efficacy were rather high in both profiles. This result supported the theoretical framework presented by Schaufeli and his colleagues (2002), according to which high absorption at work could be a factor in both high and poor well-being at work (i.e. related to burnout, work engagement, and workaholism). This result may emphasize the important role of education in subjective well-being at work in showing that highly educated employees might tend to commit to and be absorbed by their work at the same time experiencing either work engagement or burnout, and workaholism.

Notably, a favorable change in the experience of workaholism from early to mid-career was observed among those in the Exhausted–Workaholic profile. At the beginning of their career, some young highly educated employees experienced a high level of workaholism. During their career, they may continue to experience burnout but, however, less workaholism, possibly through appropriate utilization both of their education and work experience and of adaptive achievement strategies (see Brandtstädter, 1984; Little et al., 2007). These results

showed that highly educated employees in the Exhausted–Workaholic profile turned in a more a positive direction during their career. As was expected of highly educated employees, they also showed a good level of professional efficacy during their career. This result may emphasize the importance of high quality education as a basis for longitudinal subjective well-being at work. Consequently, it might be possible to lead these employees to reduce their propensity to workaholism during the early career, and systematically lead them more towards high pleasure/positive high activation in the circle described by the circumplex model (Bakker & Oerlemans, 2011). However more attention should be paid to their experiences of burnout during these efforts. Overall, this result emphasized the importance of being able to cope successfully with developmental tasks (see, for example, Havighurst, 1980).

Overall, high education may help employees to cope successfully with the tasks of the early career stage, such as learning the job (Havighurst, 1980). This, in turn, provides the basis for coping with the tasks of the mid-career, such as maintaining work engagement (Havighurst, 1980, Super, 1980; 1990), maintaining adaptive coping across the different career stages (Nurmi et al., 1995; Salmela-Aro & Nurmi, 2004; Van Heuvel et al., 2010), and predicts a high level of subjective well-being at work (Heckhausen et al., 2013). The present result was in line with previous findings (Haase et al., 2012; Nurmi et al., 2002), according to which increased motivation, engagement and the active pursuit of career goals during education, predicted the likelihood of employment and a high level of well-being in the career.

4.4   Recovery and life satisfaction as outcomes of the profiles of subjective well-being at work

In line with expectations and previous results (Maslach & Leiter, 2008), highly educated employees in the Engaged profile experienced higher levels of detachment and relaxation, greater life satisfaction, and a stronger sense of rewards, than employees in the Exhausted–Workaholic profile. This result strengthened the findings, based on the model of subjective well-being at work (Bakker & Oerlemans, 2011; Russell, 2009), that positive emotions lead to work engagement, which, in turn, has positive outcomes.

The results of the present research emphasize the role of high subjective well-being at work for psychological detachment from work and relaxation, which have been shown to be relevant for recovery as they show that no demands at work at the time (Sonnentag et al., 2007). Experiences of mastery and control did not differ between the two longitudinal profiles of subjective well-being at work, suggesting that highly educated employees might be able to master and control their work. In previous findings, recovery from work has been seen as an important variable in a hypothetical causal string of events between the development of stress and experiences of psychological overload in

the longer run (Sluiter et al., 1999). The present results supported this theoretical evidence and previous results (McEven, 1998), according to which chronic stress may lead to poor recovery strategies. Furthermore the results were in line with the COR -theory (Gorgievski & Hobfoll, 2008; Hobfol & Shirom, 2001) showing that highly educated employees in the Engaged profile had gained the resources needed for recovery (also Sonnentag et al., 2012).

The results also added to the notions of Sonnentag and Fritz (2007), who found that feelings of psychological detachment from work were crucial for well-being at work. The present results showed a reciprocal relationship between subjective well-being at work and recovery, indicating support for recent Finnish findings on recovery as an antecedents of work engagement (Sonnentag et al., 2012), the mediating role of recovery between the working environments and occupational well-being (Kinnunen & Feldt, 2013), and poor recovery as an outcome of effort-reward imbalance (Feldt et al., 2013). Finally, the results of the present research supported the theoretical argument (Schaufeli et al., 2006) that poor well-being at work causes negative spillover over to the individual's life overall, leading to poor life satisfaction (Hakanen & Schaufeli, 2012). This phenomenon is known as the cumulative cycle (see Masten et al., 2005). Consequently, young adults' social pessimism in the transition from higher education to work predicted poor subjective well-being at work and poor resources, which may then predict poor psychological detachment and relaxation, and poor life satisfaction in the Exhausted–Workaholic profile.

4.5 Practical implications of the research

The results of this research suggested that burnout can be prevented, first, by improving the six areas of worklife towards the creation of a more supportive environment for employees and, second, by seeking to promote the use of employee coping processes such as achievement and social optimism, so as to encourage them to develop a positive attitude towards their work and work-related tasks and situations (see Brandtstädter, 1984). According the previous suggestions (Seligman & Csikszentmihalyi, 2000), optimism, i.e. having expectations of positive outcomes, may be trainable. This is an important view, since individual characteristics interact with organizational characteristics, and can thus expose employees to work engagement or burnout (Maslach et al., 2001; Schaufeli & Enzman, 1998; Xanthopoulou et al., 2007). Cognitive and behavioral strategies, in turn, provide a basis for a further success (Aunola et al, 2000), and despite the stability found over time in their use, it might be possible to induce positive changes in pessimistic strategies (Caspi et al., 1989; Eronen & Nurmi 1999) as a consequence of providing a more supportive environments (Eronen et al., 1997). Consequently, how employees evaluate the situations and whether positive emotions are associated with the strategies they use, and how employees might be able to regulate stress, is constructed on the basis of interaction

between the employee and the organization (Bakker & Oerlemans, 2011; Kahn, 1990; Kristof-Brown et al., 2005; Xanthopoulou et al., 2007).

First, this research provided new information on the role of the six areas of worklife, and the role of coping and individual strategies on the different dimensions of burnout. This research found a direct relation between the six areas of worklife and burnout on the one hand and between achievement and social strategies and burnout on the other. The research yielded some theoretical information about the relationship between achievement and social strategies and areas of worklife and the dimensions of burnout. For example, optimism and motivation (Salmela-Aro & Nurmi, 2004), adaptivity and a positive attitude or exhibiting the required behaviors have been shown to be relevant for successfully cope with changes in working life (Van den Heuvel et al., 2013). This research provided new information on the relations between achievement and social strategies and the six areas of burnout by applying later on the model suggested by Leiter and Maslach (1988). The present research could be of value in organizing, planning, and leading work in workplaces, and in seeking to prevent and reduce burnout and sustain work engagement during the career (Lee & Asforth, 1996; Leiter & Maslach, 2000; Mäkikangas & Kinnunen, 2003; Salmela-Aro et al., 2009, 2011). The results could be used in interventions both in organizations and on the individual level, when diminished occupational well-being has been diagnosed (Maslach & Leiter, 1997, 2008). Furthermore, the occupational health care system in Finland is excellent. This research may be of value to health care experts in helping them to identify different occupational well-being profiles and to develop burnout interventions. The research may also be valuable for the management and Human Resources departments when seeking to support occupational well-being on the organizational level.

Second, the results of the role of achievement and social strategies and that of the six areas of worklife in relation to occupational well-being examined separately among men and women at the early career stage showed no gender differences in the dimensions of burnout. In previous studies, gender differences in burnout have been observed in other cultural contexts (for example Abele et al., 2011; Bildt & Michélsen, 2002). However, gender differences in experiences of worklife and in achievement and social strategies were found. These results strongly suggest the importance of improving both individual strategies and certain areas of worklife at the early career stage by taking a gendered approach in terms of interventions and policies to promote work and prevent burnout. Overall, most important would be the acquisition of achievement optimism and social skills during the career before the possible negative impact of high demands in worklife occurs. The findings indicate that men should be encouraged to develop more positive attitudes in social situations and women to further increase their achievement optimism, and expectations of positive outcomes in worklife (Seligman & Csikszentmihalyi, 2000; Aunola et al., 2000). Supportive organizational environments (Leiter & Maslach, 2004; Maslach et al., 2001; Schaufeli & Enzman, 1998) could be of value for both men and women. The added value of this research lies in the fact that the sample of participants was

heterogeneous enough to represent Finnish employees in their early career stage. The findings can be useful in interventions offering special solutions to account for gender differences in experiences of worklife (Purvanova & Muros, 2010).

Third, the focus of the present research on the early career and career transitions in occupational well-being could have practical implications. The results could help in directing efforts to a key issue in Finnish society: how to reach young marginalized individuals, and lead them to participate in education or employment. Furthermore, many suggestions have been introduced in recent years on ways to prolong careers in Finland. Labor organizations have suggested in their proposals for a career contract, for example, the following: finding jobs for young people on the basis of a Social Guarantee (i.e. guaranteeing a position in education or at work in order to prevent prolonged unemployment and exclusion), supporting long careers, and promoting occupational well-being (Työmarkkinakeskusjärjestöjen työurasopimuksen linjaukset, 2012). The importance of focusing on the early career stage resides from the fact that many of the transitions in an individual's life span take several years to complete (see also Mäkikangas et al., 2007). For example, a career development trajectory typically includes decisions concerning education and the further career (Dietrich et al., 2012). By focusing on the early career, important information for the successful continuity of careers can be obtained. The results of this research, furthermore, add knowledge to the current results of the project "From family leave back to work" of the Finnish Institute of Occupational Health and UKK Institute in Finland (Oinonen & Repo, 2012), according to which supporting young mothers to return to work would precede prolonged careers for women. The results of the present research supported the project's findings (Luotonen, 2012) that in supporting young women's return to work after family leave, the HR developers in organizations should pay attention to women's sense of control and community in their organizations (for example, supervisor support), and the overall well-being of new-comers.

Fourth, according to the perspective of burnout–engagement continuum (Maslach et al., 2009) low scores on exhaustion and cynicism, and high scores on efficacy, as was the case in the Engaged profile in the present research (Study III), would be indicative of job engagement. Thus, it would be interesting to examine subjective well-being at work profiles in future studies in light of the burnout–engagement continuum (see also Maslach & Leiter, 2008). The value of using the burnout–engagement continuum could be its practical significance, i.e. the fact that work engagement is a goal requested by employees applying for burnout interventions.

Fifth, in line with expectations and previous results (Maslach & Leiter, 2008; Sonnentag, & Fritz 2007), highly educated employees in the Engaged profile experienced higher levels of detachment and relaxation (Sonnentag et al., 2012), greater life satisfaction, and a stronger sense of sufficient rewards, than employees in the Exhausted–Workaholic profile (Bakker & Oerlemans, 2011). Individuals with high levels of engagement optimize their work environments

(Bakker, 2011; Tims & Bakker, 2010), which in turn supports subjective well-being at work. Thus, in seeking to increase well-being and related productiveness in organizations, HR developers should support work engagement and job crafting by offering optimal working environments. This research, which also explored the sub-dimensions of burnout and work engagement yielded information that may be useful in the development of interventions on both the individual and organizational level.

Finally, the present findings emphasize the importance of paying attention to motivation and adaptive social strategies already during the stage of education, before pressures from working life start to accumulate. In Finland, the student and occupational health care services are well organized. Thus, this research may be of great value for student health care service experts when seeking to identify possible risks for poor occupational well-being and thereby preventing the negative cumulative cycle as early as possible. Overall, from a practical standpoint, individuals and organizations would also find it worthwhile to pay particular attention to supporting positive developmental tasks during the early and mid-career stages, when aiming to support work engagement in the early career stage and to maintain occupational well-being in the mid-career stage (Greenglass et al., 2009). Superiors may improve work engagement of their subordinates, through job design, such as motivating characteristics by offering task variety, and by appointing employees prone to work engagement, such as individuals with more optimistic strategies and fewer pessimistic strategies. However, superiors should bear in mind that employees can only be as engaged as the work itself allows. Thus, work engagement could be supported by creating work environment that fosters employees' perceptions that their work is meaningful (see also Kahn, 1990).

4.6 Limitations

The present research has, however, some limitations. First, the first two Studies, I and II, utilized a cross-sectional design that does not allow causal inferences to be made. The third study, however, implemented a longitudinal design and thereby allowed cautious causal implications to be drawn. Second, all the data are based on self-reports. This emphasizes the importance of the validity of the measuring indicators used to assess the reliability of the results. Third, in the third study, the sample size was rather small. However, two distinct occupational-wellbeing profiles were found. Future research could greatly benefit from including objectively measured variables along with self-reports. For example co-workers' and superiors' assessments and/or expert assessments could be used. Fourth, addressing employee subjective well-being at work in the third study was an important aim in the present research. The two distinct occupational well-being profiles were included in order to capture the diversity of employees' experiences of burnout, work engagement and workaholism. Despite good participation rates, there was some attrition in the data set. Examining

burnout, work engagement and workaholism, although a widely used framework in academic environment research, is naturally only one way of approaching employees' occupational well-being. Therefore, although the main focus here was on employees' burnout–work engagement–workaholism profiles, the scope of the study was broadened by incorporating other relevant indices (for example, gender, and education-work congruence). Fifth, the two social areas of worklife (rewards and sense of community) were examined as outcomes of the subjective well-being at work profiles. In future studies, it would be interesting to examine the roles that all the six areas of worklife play in regard to shaping employees' burnout–work engagement–workaholism profiles.

Sixth, the fact that the sample used in Studies I and II was drawn from clients of occupational health care services, from a sample of employees of four organizations, may call into question generalizability of the findings. It could be that those who were burned out tended not to participate. However, the sample was highly heterogeneous. Seventh, in Study III the sample was strongly female-dominated and restricted to employees who had graduated in social sciences. Also, the sample consisted of graduates from one university. Future research on the subjective well-being at work of highly educated employees could greatly benefit from using larger samples from several universities, also examining vocational tracks, and additionally gathering responses from supervisors, co-workers and spouses. However, the university in Study III is a large university in Finland. Although previous studies on psychological well-being have shown no differences between non-university and university respondents (Hankin & Abramson, 2001) the results should be interpreted as a follow-up of this employee population only. Furthermore, employees who have graduated from vocational schools or from universities of applied sciences could show different profiles. There is a need to replicate the findings of the longitudinal study among other groups of employees in their early and mid-career stages. Replicating the findings among blue-collar workers would bring further benefits. Eighth, using the complete Areas of Work Life Scale, when measuring outcomes of the profiles of subjective well-being at work, would yield further useful knowledge on the outcomes of these profiles examined here. Finally, a longitudinal study with more than two measurement points would offer more possibilities for estimating changes in burnout–work engagement–workaholism profiles.

4.7 Future directions

The results of the present research have several future implications for future studies. First, it would be important to examine the stability of the associations between achievement and social strategies, the six areas of worklife and burnout over time. Second, although this research did not show gender differences in experiences of burnout at the early career stage, it should be kept in mind that previous researches in different cultural contexts have found gender differ-

ences in these experiences. Accordingly, women generally are considered be more likely to experience exhaustion than men, and men more likely to experience cynicism (Eagly, 1987; Eagly & Wood, 1982; Maslach, et al., 2001; Purvanova & Muros, 2010; Schaufeli & Bakker, 2004), and higher professional efficacy more than women (Leiter & Maslach, 2004). Price and Spence (1994) following Greenglass (1991), have suggested that the primary source of burnout is differed among men and women: among men it is work-related factors and for women it is home-work conflict. However, the present research also found indications of gender differences in achievement and social strategies and experiences of areas of worklife among young employees in the early career stage. Men experienced more achievement optimism, and women more achievement pessimism and social optimism. The negative association between rewards and cynicism, and between control and exhaustion among young women was observed cross-sectionally in Study II. However, studies carried out in different cultural contexts have found that men generally experienced higher workload, sense of control and fairness than women, whereas women tended to experience higher value congruence between their values and the values of the organization. No gender differences have been reported in perceptions of sufficient rewards or sense of community. Hence, more empirical research is needed to expand our knowledge of how gender differences and relations between achievement and social strategies, the different areas of worklife and occupational well-being develop during the career. Research in this area might yield important knowledge and suggestions for interventions that may offer answers to current concerns, such as how to prolong careers in Finland

Fourth, the life-span model of motivation and life-span approach to career development emphasizes the importance of the developmental tasks and career stages that employees confront during the life span (Havighurst, 1980; Super, 1980, 1990). The establishment stage at the beginning of one´s career and the maintenance stage in mid-career were both observed to have a strong role in the present research, whereas during the early career stage young employees face many developmental tasks such as simultaneously being a parent and an employee (Super, 1980). During the mid-career stage, in turn, the demands include to maintaining work engagement (Schaufeli et al., 2007), continuing development and productivity at work (Greenhaus et al., 2009), while simultaneously accomplishing the developmental tasks of this phase of the life-span. In order to gain an overview of occupational well-being during the career, it would be important to continue the life-span approach by also examining the career decline stage, when decelerating, retirement planning, and retirement living are planned (Little et al., 2007; Van den Heuvel et al., 2013). It is important to identify the subjective well-being at work structures that predominate during the career so as to locate potential points where more efforts is needed to maintain work engagement and thus a successful career. In this way, the etiology of different profiles of subjective well-being at work and the processes that are responsible for stability and change in the profiles could be examined.

Fifth, the present research examined the burnout-work engagement-workaholism profiles among highly educated employees, i.e. persons engaged in mental work, from early to mid-career. More heterogeneous populations in Finland (for example, graduates from all the faculties in the University of Helsinki or from other universities in Finland, which would produce higher proportions of employees from different academic scientific sectors) could be examined as means to understand the diversity of highly educated employees' burnout–work engagement–workaholism profiles and their antecedents and outcomes. In future research, it would also be important to expand the study of occupational well-being profiles to include all types of occupations in order to reveal possible differences in profiles among employees in physical work from those of employees in mental work.

Sixth, research on the burnout, work engagement, workaholism, and well-being process should be more explicitly embedded in social and cultural contexts, meaning the larger culture, and society. For instance, Finnish society, culture, labor markets, leadership, and its specific features (for example, a relatively homogeneous society, equal opportunities for all citizens to have a good education; Tuominen-Soini, 2012) must surely have an impact on Finnish employees' subjective well-being at work and, thus, on the findings of the present research (especially in Study III). Future research should include replication of our classification on occupational well-being in other work contexts, among employees from other educational backgrounds and from other cultural contexts, for example among immigrants. However, when considering the range of individual and contextual variation in employee occupational well-being, it should be remembered that in Finland the organization-level variation in work engagement has been shown to be rather low (Mauno et al., 2005). However, previous Finnish results by Mauno et al. (2005) found that work engagement was stronger among employees in health care services and in an ICT company than among employees in carton factory. According to the theory P-O fit (Maslach et al., 2001), it is the fit between the employee and the environment that makes the difference. In future research, the possible moderating role of gender in the associations between the six areas and occupational well-being could be examined more closely.

Seventh, as examination of the stability of the profiles of subjective well-being at work, using a person-oriented approach, has been proved to be useful, future work could fruitfully extend the present approach by using other statistical methods as well (for example, growth mixture modeling, latent transition analysis, plus applying covariates in these analyses) in order to explore the trajectories of occupational well-being over a longer period of time (see also Tuominen-Soini, 2012) In addition to self-reported data, another way of assessing employees´ occupational well-being, achievement and social strategies and experiences of worklife would have been to include multiple approaches and multiple sources of information (for example, superiors, co-workers such as team members, health care personnel and spouses), as stated earlier.

Finally, coping with challenges in transitions depends on the individual and on the individual's social relationships and wider societal, cultural, and institutional environments. It could be of value to examine transitions and career development by exploring developmental regulation through the phase-adequate engagement approach presented by Dietrich et al., (2012). The phase-adequate engagement addresses the question of how people engage in the transition, that is, what goals and strategies they apply and how adequate or inadequate these behaviors are (Dietrich et al., 2012). This approach could yield important results that could be used to support careers resilience.

4.8 Conclusion

In conclusion, first, this research showed that the six areas of worklife (workload, control, rewards, sense of community, fairness, and values) were more strongly related to burnout than achievement and social strategies were. However, achievement and social strategies had a mediator effect between areas of worklife exhaustion, cynicism and professional efficacy. Thus, insufficient rewards can lead to lack of optimistic strategies and to increase of achievement and social pessimism, which in turn increased exhaustion. Respectively, excessive workload, insufficient reward, and a lack of sense of community can lead to lack of optimistic strategies, which in turn were related to cynicism. Appropriate workload, high level of rewards and sense of community can lead to high levels of achievement and social optimism and to the less social pessimism, which in turn were supported a high level of professional efficacy. Notably, the mediating role of lack of achievement optimism between the six areas of worklife and cynicism and social optimism between the six areas of worklife and professional efficacy disappeared when the model suggested by Leiter and Maslach (1988) was applied in further analyses. This result emphasizes the fact that interventions should be carried out when the first signs of burnout emerge in order to support employees' positive thinking and behavior.

Second, there were differences between men and women in regard to levels of achievement and social strategies and experiences of worklife at the early career stage. Surprisingly, in Finnish context no gender differences were identified in work burnout. Both achievement and social strategies and areas of worklife could buffer against exhaustion and cynicism and support professional efficacy in early career. The role of the strategies and the six areas of worklife differed between genders. Thus, taking into account gender differences in young employees' achievement and social strategies and experiences of areas of worklife, developers in organizations can create new ways to decrease and prevent employee burnout and strengthen employee professional efficacy at the early career stage.

Third, the findings emphasize the role of achievement and social strategies and the six areas of worklife in burnout. Achievement and social pessimism were related to exhaustion and cynicism, whereas a high level of achievement

optimism and a low level of social pessimism were the most related to professional efficacy. Excessive workload was related to all the dimensions of burnout but the strongest the relation was to exhaustion. Control over one´s work, in turn, had the strongest relation to professional efficacy. Social optimism acted as a mediator between exhaustion and rewards and could prevent exhaustion even when rewards were insufficient. Lack of achievement optimism acted, at least in part, as a mediator between cynicism and areas of worklife. Especially value conflicts, could lead to the lack of achievement optimism, which in turn led to cynicism. Social pessimism, in turn, acted as a mediator between lack of control, insufficient rewards, lack of a sense of community, incongruent values and professional efficacy, and thus could reduce professional efficacy.

Fourth, the present research examined subjective well-being at work from early to mid-career using a person-oriented approach. Two profiles were identified: an Engaged profile and an Exhausted–Workaholic profile. Subjective well-being at work was at a good level in the sample of highly educated employees in Finland. The majority of employees were members of the longitudinal Engaged profile. The results revealed continuity in both profiles, with only a minority of employees experienced changes in their profile. Noteworthy, decreasing workaholism from early to mid-career was observed in the Exhausted–Workaholic profile suggesting that high education and experience could support employees from exacerbate workaholism later on. Notably, adopting a high level of social pessimism during university education could predispose newcomers to membership of the Exhausted–Workaholic profile in early career suggesting early signs of marginalization from working life and a cumulative cycle of further life-dissatisfaction. Finally, membership of the Engaged profile was related to experiences of high levels of psychological detachment from work, relaxation, overall life satisfaction, and experiences of rewards.

YHTEENVETO (SUMMARY)

Työolojen ja suoritus- ja sosiaalisten strategioiden rooli työhyvinvoinnissa

Tämän tutkimuksen tavoitteena oli tutkia työntekijöiden kokemuksia työoloistaan sekä heidän käyttämiään suoritus- ja sosiaalisia strategioita ja näiden yhteyttä työhyvinvointiin Lisäksi kartoitettiin työuupumus–työn imu–työholismi profiileja varhaisuralta työuran keskivaiheille. Tutkimuksen teoreettisena viitekehyksenä käytettiin yksilön ja organisaation yhteensopivuutta mallintavaa Person-Organization -fit teoriaa (Kristof, 1996; Verquer et al., 2003), sosiaalisen vaihdon teoriaa (Cropanzano & Mictchell, 2005) sekä työhyvinvoinnin eri osa-alueita kuvaavaa yksilöllisen työhyvinvoinnin akselimallia (circumplex model of subjective well-being at work) (Bakker & Oerlemans, 2011).

Tutkimus toteutettiin kyselylomaketutkimuksena ja se perustui kahteen aineistoon. Kahden ensimmäisen osatutkimuksen aineisto (N = 1800) perustui työterveyshuollon keräämään aineistoon. Kyselylomakkeen osioissa tiedusteltiin työuran eri vaiheissa olevien työntekijöiden emotionaalista uupumusta, kyynisyyttä ja ammatillisen tehokkuuden tunnetta, arviointeja työoloista sekä suoritus- ja sosiaalisista strategioista. Toisen otoksen aineisto oli peräisin Helsinki Longitudinal University Student Study –tutkimuksesta, joka alkoi 1991)(N=298) (Salmela-Aro & Nurmi, 2004). Työuupumuksen, työolojen ja strategioiden lisäksi tiedusteltiin tarmokkuuden, työn imun ja työholismin kokemuksia, työstä palautumisen strategioita ja elämäntyytyväisyyttä.

Ensimmäisessä osatutkimuksessa kartoitettiin työolojen sekä suoritus- ja sosiaalisten strategioiden yhteyksiä emotionaaliseen uupumukseen, kyynisyyteen ja ammatillisen tehokkuuden tunteisiin. Tutkittiin myös, millä tavalla suoritus- ja sosiaaliset strategiat toimivat välittäjinä työolojen ja työuupumuksen kokemusten välillä. *Toisen osatutkimuksen* tavoitteena oli tarkastella varhaisella työuralla olevien nuorten työntekijöiden työuupumusta, työoloja sekä suoritus- ja sosiaalisia strategioita sukupuolierojen näkökulmasta. *Kolmannessa osatutkimuksessa* tutkittiin henkilökeskeistä lähestymistapaa soveltaen pitkittäistutkimuksena varhaiselta työuralta työuran keskivaiheille, minkälaisia työhyvinvoinnin profiileja (työuupumus – työn imu – työholismi) voitiin havaita. Lisäksi selvitettiin, millä tavoin yliopistosta varhaiselle työuralle siirryttäessä mitatut suoritus- ja sosiaaliset strategiat ennakoivat tiettyyn työhyvinvointiprofiiliin kuulumista. Lopuksi tutkittiin työhyvinvointiprofiilien yhteyksiä työstä palautumisen strategioihin, palkitsevuuden ja yhteisöllisyyden kokemuksiin sekä elämäntyytyväisyyteen.

Tulosten perusteella sekä työolot että suoritus- ja sosiaaliset strategiat ovat merkitsevästi yhteydessä emotionaaliseen uupumukseen, kyynisyyteen ja ammatillisen tehokkuuden kokemuksiin. Mitä sopivammaksi työntekijät kokivat työmääränsä, mitä enemmän he kokivat vaikuttamismahdollisuuksia, palkitsemista, yhteisöllisyyttä, oikeudenmukaisuutta ja arvojen samankaltaisuutta organisaation arvojen kanssa, sitä vähemmän he kokivat emotionaalista uupumusta ja kyynisyyttä sekä sitä enemmän ammatillisen tehokkuuden tunnetta.

Vahvin yhteys oli työmäärän ja emotionaalisen uupumuksen välillä. Vaikuttamismahdollisuudet, palkitsemisen kokemukset ja yhteisöllisyyden tunne sen sijaan olivat vahvasti yhteydessä ammatillisen tehokkuuden tunteisiin. Tulokset osoittivat myös, että mitä enemmän työntekijät työurallaan käyttivät suoritus- ja sosiaalista optimismia ja mitä vähemmän suoritus- ja sosiaalista pessimismiä, sitä vähemmän he kokivat emotionaalista uupumusta ja kyynisyyttä ja sitä enemmän ammatillisen tehokkuuden tunteita. Suoritus- ja sosiaalisen pessimismin välittävä vaikutus näkyi erityisesti vähäisen palkitsevuuden ja korkean emotionaalisen uupumuksen välillä: vähäinen palkitseminen välittyi sosiaalisen pessimismin kautta emotionaalisen uupumuksen kokemuksiin.

Tutkimustulokset osoittivat edelleen, että emotionaalisessa uupumuksessa, kyynisyydessä ja ammatillisen tehokkuuden tunteessa ei ollut sukupuolieroja *varhaisella työuralla*. Miehet käyttivät naisia enemmän suoritusoptimismia ja naiset miehiä enemmän suorituspessimismiä ja sosiaalista optimismia. Lisäksi miehet kokivat saavansa naisia enemmän vaikutusmahdollisuuksia ja oikeudenmukaisuutta organisaatiossa. Jonkin verran sukupuolieroja todettiin työolojen ja suoritus- ja sosiaalisten strategioiden yhteyksissä emotionaaliseen uupumukseen, kyynisyyteen ja ammatilliseen itsetuntoon. Mitä enemmän *miehet* käyttivät suoritusoptimismia ja mitä vähemmän suorituspessimismiä (tehtävän välttämistä suoritustilanteissa), sitä vähemmän he kokivat emotionaalista uupumusta ja kyynisyyttä ja sitä enemmän ammatillisen tehokkuuden tunnetta. *Naisilla* vahva suoritusoptimismi oli yhteydessä ammatillisen tehokkuuden tunteisiin. Mitä sopivampi työmäärä *miehillä* oli, mitä enemmän he kokivat vaikuttamismahdollisuuksia ja palkitsemista, sitä vähemmän uupuneita he olivat. Mitä sopivampi työmäärä, mitä enemmän vaikuttamismahdollisuuksia, yhteisöllisyyden tunteita ja arvojen samankaltaisuutta organisaation arvojen kanssa *miehet* kokivat, sitä vähemmän kyynisiä he olivat ja sitä parempi ammatillisen tehokkuuden tunne heillä oli. Vastaavasti, mitä sopivampi työmäärä ja mitä enemmän vaikuttamismahdollisuuksia *naisilla* oli, sitä vähemmän he kokivat emotionaalista uupumusta. Mitä enemmän vaikuttamismahdollisuuksia, yhteisöllisyyden tunteita, palkitsevuutta ja arvojen samankaltaisuutta organisaation arvojen kanssa *naiset* kokivat, sitä vähemmän kyynisiä he olivat ja sitä parempi ammatillisen tehokkuuden tunne heillä oli**.**

Lopuksi tutkimustulokset osoittivat, että työntekijät kuuluivat varhaisuralta uran keskivaiheille kahteen pysyvään työhyvinvointiprofiiliin: työn imun profiiliin (84 %) ja uupuneet työholistit -profiiliin (16 %). Työn imun profiilia kuvasivat vahva työn imu ja ammatillisen tehokkuuden tunne sekä vähäinen kyynisyys ja kohtuullinen työholismi. Uupuneiden työholistien profiilia kuvasivat korkea emotionaalinen uupumus ja työholismi sekä vähäinen tarmokkuus. Uupuneiden työholistien työholismin kokemus laski merkitsevästi varhaisuralta työuran keskivaiheille mutta oli silloinkin merkitsevästi korkeampi kuin työn imun profiilissa. Vahva sosiaalinen pessimismi siirtymävaiheessa yliopistosta työelämään ennusti kuulumista uupuneiden työholistien profiiliin, kun taas suoritusoptimismi työuran aikana oli yhteydessä työn imun profiiliin. Työn imua kokevien profiilissa psykologinen irrottautuminen työstä

ja rentoutuminen työn jälkeen, elämäntyytyväisyys ja työn palkitsevuus koettiin paremmiksi kuin uupuneiden työholistien ryhmässä.

Yhteenvetona voidaan todeta, että suoritus- ja sosiaalinen optimismi välittivät työolojen ja työuupumuksen eri dimensioiden välisiä yhteyksiä. Varhaisella työuralla nuoret miehet ja naiset kokivat kohtuullista uupumusta ja kyynisyyttä ja heidän ammatillisen tehokkuuden tunteensa oli varsin hyvää tasoa. Työolokokemuksien sekä suoritus- ja sosiaalisten strategioiden yhteyksissä työuupumukseen esiintyi sukupuolten välistä vaihtelua. Yliopistosta valmistuvien sosiaalinen pessimismi ja vähäiset sosiaaliset suhteet ennustivat emotionaalista uupumusta ja työholismia työuralla ja voivat johtaa syrjäytymisen kierteeseen. Sen sijaan motivaatio ja optimistiset suoritusstrategiat työuralla tukivat työn imua. Työhyvinvointiprofiilit olivat pysyviä varhaiselta työuralta työuran keskivaiheille, vaikka korkeasti koulutettujen uupuneiden työholistien työholismi väheni työuran edetessä. Työn imun profiiliin kuuluminen oli yhteydessä toimivaan työstä irrottautumiseen ja rentoutumiseen, yleiseen elämäntyytyväisyyteen sekä myönteisiin arvioihin työn palkitsevuudesta.

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APPENDICES

Appendix 1   **Mediator effects of achievement and social strategies between areas of worklife and dimensions of burnout.**

	Exhaustion				Cynicism			
Areas of worklife	Achieve-ment optimism	Achievment pessimism (Avoidance)	Social optimism	Social pessimism	Achieve-ment optimism	Achieve-ment pessimism (Avoidance)	Social optimism	Social pessi-mism
	z	z	z	z	z	z	z	z
Workload	ns.	-2.45**	-2.99**	-1.75*	ns.	-2.40**	-3.42***	-1.77*
Control	3,56***	ns.	-3.51***	ns.	ns.	ns.	-4.27***	-1.77*
Rewards	-3.00***	-2.04*	ns.	-3.09**	ns.	-2.01**	ns.	-3.21**
Comunity	-4.80***	ns.	ns.	-3.13**	ns.	ns.	ns.	-3.26**
Fairness	ns.	ns.	ns.	ns.	ns.	ns.	ns.	ns.
Values	-3.30	-2.45**	-2.02*	ns.	ns.	-2.40**	-2.13*	ns.

(Appendix continued)

Areas of worklife	Achievement optimism	Professional efficacy		
		Achievement pessimism (Avoidance)	Social optimism	Social pessimism
	z	z	z	z
Workload	ns.	1.99*	ns.	ns.
Control	4.19***	ns.	ns.	ns.
Rewards	3.35***	1.76*	ns.	2.30**
Community	4.95***	1.99*	ns.	2.33**
Fairness	ns.	ns.	ns.	ns.
Values	3.77***	ns.	ns.	ns.

Note. z = significance of mediator effect of achievement and social strategies by Sobel's test,
$p^* < .05$, $p^{**} < .05$, $p^{***} < .001$
Exhaustion was controlled for in cynicism and both exhaustion and cynicism in professional efficacy.

ORIGINAL PUBLICATIONS

I

THE ROLE OF ACHIEVEMENT AND SOCIAL STRATEGIES AND OF WORK-LIFE AREAS IN JOB BURNOUT

by

Hely Innanen, Aino Juvakka, & Katariina Salmela-Aro, 2011
Psychology of Burnout: Predictors and coping mechanism, 133–152

Chapter 6

THE ROLE OF ACHIEVEMENT AND SOCIAL STRATEGIES AND OF WORK-LIFE AREAS IN JOB BURNOUT

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ABSTRACT

The aim of this chapter is to examine the extent to which work-life related factors (workload, control, reward, community, fairness and values) and psychological characteristics (achievement and social strategies) simultaneously contribute to job burnout. Coping was operationalized as cognitive and behavioural efforts to handle external or internal demands that could exceed individual´s resources. The participants were employees in four organizations: an information technology company, a hospital, a university, and a large service organization (N = 1746). The employees filled in the Strategy and Attribution (SAQ), Areas of Work-life Survey (AWLS) and Maslach Burnout Inventory (MBI) questionnaires. The results showed that the both work-life related factors and the strategy factors were related to the dimensions of job burnout: exhaustion, cynicism, and professional efficacy. Workload was the most significantly related to exhaustion, value conflicts to cynicism, and both control and reward to professional efficacy. The results showed further that scarcity of optimistic strategies was the most significantly related to exhaustion, avoidance and social pessimism to cynicism, and optimistic achievement strategies to professional efficacy. Finally, the results revealed that the work-life related factors were more strongly related than the strategy factors to the three dimensions of job burnout. However, the strategies acted as mediators in the relation between some of the work-life related factors and burnout.

Keywords: exhaustion, cynicism, professional efficacy, work-life areas, coping, achievement and social strategies.

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INTRODUCTION

Job burnout is one of the most serious problems affecting well-being in the working population (Maslach & Leiter, 1997). The Finnish Institute of Occupational Health has estimated that 48 % of working-age Finns suffer from moderate burnout and 7 % from severe burnout (Kalimo & Toppinen, 1997). The results from the Finnish Health 2000 Study in turn revealed that 25 % of working-age Finns suffer from moderate burnout and 2,5 % from severe burnout (Ahola et al., 2005). The discrepancy, however, is partly due to differences in the research designs and data.

Several process and phase models have been developed to describe job burnout (Cherniss, 1980; Golembiewski & Munzenrieder, 1988; Hofboll, 1989; Leiter & Maslach, 1988; Maslach & Jackson, 1981). Leiter and Maslach (2004) define burnout as a psychological syndrome of exhaustion, cynicism, and professional inefficacy. Exhaustion refers to lack of emotional energy and the feeling that one has insufficient emotional resources to cope with different situations (Maslach, 1993; Toppinen-Tanner, Kalimo, & Mutanen, 2002). The cognitive dimensions of job burnout are cynicism and the feeling that of one's professional efficacy has diminished (Leiter, 1991). This cognitive dimension distinguishes job burnout from stress (Maslach, Schaufeli, & Leiter, 2001).

Research on burnout has almost exclusively focused on the role of work characteristics. This is not surprising as burnout is defined as a work-related state of mind. However, it remains an intriguing question why some employees report high levels of burnout whereas others working in the same environment do not. This chapter adds to the literature by applying both the perspective of individual differences perspective and the perspective of work characteristics to burnout (Maslach, 2003; Maslach et al., 2001). One way to approach individual differences is through achievement and social strategies, which are further divided into functional and dysfunctional strategies (Eronen, Nurmi, & Salmela-Aro, 1997). In this chapter we will use the term achievement and social strategies to refer individuals' ways of approaching and responding to demanding situations in their lives. Individual differences in such patterns are operationalized in terms of two constructs: optimism and avoidance (Onatsu-Arvilommi & Nurmi, 2000). The aim of this chapter is to examine the extent to which achievement and social strategy factors as coping strategies and work-life related factors respectively are simultaneously related to job burnout.

WORK-LIFE AREAS RELATED TO BURNOUT

Recent research emphasizes that burnout is caused by a conflictual relationship between employees and work, i.e. that a clear interaction exists between the work environment and employee characteristics (Furnham, 2001; Maslach, 2003; Maslach et al., 2001; Mäkikangas, 2007). Maslach and Leiter (1997) have integrated the theoretical and empirical studies on the development of job burnout and found six conflict situations in the work context: work overload, lack of control, insufficient reward, unfairness and lack of sense of community, and value conflict between the employee and the organization (Leiter, & Maslach, 2000; Maslach & Leiter, 1997). In contrast, good fit between the employee and his/her work leads to job engagement and motivation, and thus occupational well-being, which is the opposite of job

burnout (Bakker, Schaufeli, Leiter, & Taris, 2008; Maslach, 2003; Maslach & Leiter, 1997; Maslach et al., 2001).

Excessive quantitative or qualitative workload is viewed as the most common cause of job burnout regardless of occupational field, and is primarily connected with exhaustion (Lee & Asforth, 1996). Factors causing excessive workload include, for example, a job that prevents employee recovery from work, insufficient working skills, or a tendency to end up in an inappropriate job (Burke, 2001; Maslach et al., 2001). Having insufficient possibilities to control one's work was found to be associated with diminished professional efficacy and tiredness, and more absences from work due to illness (Glass & Mcknight, 1996). Weak possibilities to control one's work and high job demands increase the probability of burnout (Karasek, 1979; Maslach et al., 2001). Reward, in turn, refers to financial benefits or intrinsic rewards, such as pride in doing something well (Maslach et al., 2001). Positive relationships between the employees in an organization are conducive to a sense of community and commitment by employees to their work, and absences are few (Byrne, 1994; Leiter & Maslach, 1988). Chronic and unsolved conflicts pose the most disastrous situation for sense of community, since they cause constant negative frustration and hostility and reduce social support (Maslach et al., 2001).

Fairness, which is shown by respect, strengthens individuals' self-esteem, whereas unfairness refers, for example, to inequalities in workload and salary, betrayal and cheating, or inappropriate ways of dealing with evaluations and promotions. A lack of fairness exacerbates burnout. The experience of unfairness is emotionally exhausting and leads to an attitude of cynicism towards the workplace (Maslach et al., 2001). Value conflicts occur when the values of the employee and those of the organization collide, such as in a situation where employees feel that they are being forced to act unethically (Maslach & Leiter, 1997). The stated values of the organization may be in conflict with its practical actions. The value dimension is considered in the literature as an essential intermediary between the other five work-life related factors and the dimensions of job burnout (Maslach et al., 2001).

STRESS, BURNOUT AND COPING

Coping refers to the cognitive and behavioural abilities of an employee to manage challenging and demanding situations (Lazarus & Folkman, 1984; Monat & Lazarus, 1977). The original cognitive theory of stress and coping first developed by Lazarus (1966) is an appraisal-based model. The appraisal process comprises primary and secondary appraisal. Prior appraisal is as the evaluation of an event and its personal significance, whereas secondary appraisal includes the evaluation of options for coping. These two forms of appraisal together determine whether the event is perceived as harmful, a threat or a challenge (Lazarus & Folkman, 1984). Harmful appraisals include negative emotions such as anger; threat appraisals include emotions such as anxiety, while positive emotions such as eagerness and confidence are related to challenge appraisals (Folkman & Lazarus, 1985; Fredrickson, 1998). One way to approach coping is through the beliefs and strategies employees use when they try to handle challenges and demands. Employees in demanding situations have expectations about what will happen. Such expectations include their beliefs of success and doing well in the tasks or social relationships in question, and, alternatively, strategies of task

avoidance and social withdrawal. These expectations are based on experience, and they function as the basis for the effort individuals invest in future achievement situations (Onatsu-Arvilommi & Nurmi, 2000; Määttä, 2007).

Scheier and Carver (1985) suggest that optimistic and pessimistic employees use different coping strategies in stressful work environments. Optimism has been proved to be positively correlated with the use of problem-focused and active coping, i.e. with positive reinterpretation and positive emotions in the coping process, acceptance, and seeking social support (King, Hicks, Krull, & Del Gaiso, 2006; Scheier, Carver & Bridges, 2001; Wilk & Mounihan, 2005). Further, optimism is inversely correlated with the use of denial as a coping mechanism, and with a focus on emotional expression and disengagement (Folkman & Moskowitz, 2007; Scheier & Carver, 1985; Scheier, Weintraub & Carver, 1986). Finally, optimism, such as specific expectations of positive outcomes, may be trainable (Seligman, 1991; Seligman & Csikszentmihalyi, 2000). Positive coping strategies may have the potential to diminish the harmful effects of work-related stress (Wilk & Moynihan 2005). Research has shown that functional coping is more effective than escapist coping strategies. Optimism can both buffer problematic situational work-life factors (Carver, Scheier, & Weintraub, 1989; Folman, 1997; 2008; Mäkikangas, 2007; Park & Folkman, 1997; Savicki, 2002) and cushion occupational stress (Mäkikangas, 2007; Mäkikangas & Kinnunen, 2003; Otero-López, Mariño, & Bolaño, 2008). However, more research is needed to identify the full range of individual characteristics related to burnout.

ACHIEVEMENT AND SOCIAL STRATEGIES

Achievement and social strategies can be divided into functional and dysfunctional strategies. Functional, optimistic strategies are positively directed towards tasks in demanding conditions, while dysfunctional pessimistic strategies are avoidance strategies (Eronen, Nurmi, & Salmela-Aro, 1997; Folkman & Moskowitz, 2007). Earlier studies has shown that in working life, active problem solving strategies seem to have an association with low exhaustion, low cynicism and high professional efficacy (Lee & Ashforth, 1993; Leiter, 1991; Parkes, 1990). However, most studies applying the strategy approach have been conducted in academic contexts and achievement situations (Aunola, Stattin & Nurmi, 2000; Nurmi, Aunola, Salmela-Aro & Lindroos, 2002; Määttä, 2007), while only few studies have focused on working life. The aim of this chapter is to contribute to filling this gap.

In addition to achievement strategies, social strategies might also play a role in burnout (Eronen et al., 1997). An optimistic social strategy means purposeful planning, positive emotions in social situations, and seeking for support and advice. Optimistic social strategies sustain improved quality in social relationships and positive well-being in the future. An avoidant social strategy is characterized by social withdrawal and negative feelings in social situations and by actions that are not related to the situation in question (Eronen & Nurmi, 1999; Eronen et al., 1997; Nurmi & Salmela-Aro, 1997; Nurmi, Toivonen, Salmela-Aro, & Eronen, 1996).

In this chapter, in addition to achievement strategies, we examine the extent to which social strategies contribute to job burnout. In particular, positive interaction between individuals contributes to sense of coherence (Leiter & Maslach, 1988; Mäkikangas, 2007)

and engagement with work (Leiter & Maslach, 1988, 2000). Also, the meaning individuals give to the challenging and demanding situations in their life contributes to their well-being (Tennen, & Affleck, 2002). According to the social exchange theory, the disequilibrium between what employees give to their work and what they receive from it is one of the causes of either well-being or job burnout (Buunk & Schaufeli, 1993; Schaufeli, van Dierendonck & van Gorp, 1996). This approach to well-being accords with the view that contextual and organizational factors play a more significant role than individual factors in job burnout (Burisch, 2002; Maslach, 2001; Schaufeli & Enzmann, 1998).

THE AIM OF THE STUDY AND RESEARCH QUESTIONS

The aim of this study was to examine the extent to which both work-life related factors and achievement and social strategy factors are related to job burnout. Prior research has focused on the relationship between work-life related contextual factors (workload, possibilities to control one's work, reward, sense of community, fairness, and values) and burnout. However, only few studies have examined the relationship between achievement strategy factors and job burnout. This chapter extends the existing research by also examining social strategies and meaning-focused coping in social situations. Moreover, the coincident relationship between achievement and social strategies and work-life related factors has not been studied earlier. The present study addressed the following research questions:

1. To what extent are achievement and social strategies related to the different dimensions of job burnout?

We hypothesised (Hypothesis 1a) that all the strategy factors would be related to all the dimensions of job burnout. On the basis of earlier studies we hypothesised (Hypothesis 1b), that optimistic strategies would be related more to professional efficacy and less to exhaustion and cynicism while avoidance strategies and social pessimism would be related more to exhaustion and cynicism and less to professional efficacy (see Leiter, 1991).

2. To what extent are work-life related factors (workload, control, reward, community, fairness, and values) related to the dimensions of job burnout?

We hypothesised (Hypothesis 2a), on the basis of earlier studies, that the factor most commonly related to job burnout would be excessive workload, and that this relation would be strongest with exhaustion; however excessive workload would be related to all the dimensions of job burnout (Lee & Ashforth, 1996). Since reward is associated with a sense of pride in a job well done, we hypothesised (Hypothesis 2b) that reward would be related to professional efficacy (Maslach et al., 2001).

3. Which are more strongly related to job burnout, achievement and social strategies or work-life related factors?

We hypothesised (Hypothesis 3a) that work-life related factors would be more strongly related to job burnout than achievement and social strategies (Schaufeli & Enzmann, 1998), but that achievement and social strategies would have some mediator effects (Hypothesis 3b), according to recent research since the cause of burnout lies in the interaction between people and work (Furnham, 2001; Savicki, 2002). A mediator effect for strategies can be observed if there is a significant correlation between the work-life variable and the burnout variable, between the work-life related variable and the strategy variable, or the strategy factor significantly explains the burnout variable, when the strategy factors have been controlled for (see Baron & Kenny, 1986; Kenny & Kashy & Bolger, 1998).

METHOD

Participants

The subjects were employees from four organizations: a company in information technology (11 %, $N = 187$), a hospital (27 %, $N = 467$), a university (16 %, $N = 285$), and a large service organization (46%, $N = 807$). The material was collected in group meetings by questionnaires, which were returned by 55 % of the employees. The majority (66 %) of the study participants were women. The age of the participants ranged between 18 and 63 years ($M = 40.6$, SD = 10.1 years).

Measures

The Strategy and Attribution Questionnaire (SAQ) was used to examine achievement strategies and social strategies (Nurmi, Salmela-Aro & Haavisto, 1995). The SAQ contains 20 items ranked on a 4-point Likert scale (1 = I completely disagree, 5 = I completely agree). The sum variables were created from the items by using factor analysis. Achievement strategies were measured by optimism, which consisted of six items (for example "*When I begin a task, I am normally sure I will succeed in it*") (Cronbach's alpha 0.77), and by task avoidance, which consisted of four items (for example "*When I have a difficult task to carry out, I often find something else to do*") (Cronbach's alpha 0.76). Statement 11 ("*I often become ill, if there is something uncomfortable coming up the following day*") was unsuited to either of the sum variables, and was thus omitted. Two of the sum variables were related to social strategies. Social optimism was measured with four items (for example "*I usually get on with other people*") (Cronbach's alpha 0.65). Social pessimism was measured with four items (for example "*Since I am afraid of meeting people, I am often alone*") (Cronbach's alpha 0.64). Statement 17 ("*There is no point in chatting about this and that, when there are a lot of other things to do*") was unsuited to either of the sum variables, and was omitted.

The Areas of Work-life Survey Method (*AWLS)* (Leiter & Maslach, 2000) was used to examine employees' experiences of workload, control, reward, sense of community, fairness, and the compatibility of employees' values with those of the organization. The AWLS consists of 29 items ranked on a 5-point Likert scale (1 = I completely disagree, 5 = I completely agree). The sum variables were created from the items by using factor analysis.

The sum variables were: workload (6 statements, for example "*I do not have time to do all that I have to do*"), control (3 statements, for example " *I am professionally independent in my work*"),   reward (4 statements, for example "*My work is appreciated*"), sense of community (5 statements, for example "*I do not feel close to my co-workers*"), fairness (6 statements, for example " *Resources are divided fairly in my workplace*"), and the compatibility of employees' values with those of the organization (5 statements, for example "*My values and the values of my workplace are similar*"). The Cronbach alpha reliabilities for workload, control, reward, sense of community, fairness and values were 0.71, 0.68, 0.76, 0.74, 0.72 and 0.74, respectively.

The Maslach Burnout Inventory (MBI), General Survey, MBI-GS was used to measure job burnout (Burke & Richardsen, 2001; Leiter & Maslach, 2000; Maslach, Jackson & Leiter, 1996). The MBI consists of 16 questions. Respondents are asked to assess their feelings about their work by using the scale 0 (never) – 6 (daily). The following sum variables were created from the items of job burnout for the subsequent factor analysis: exhaustion (5 questions), cynicism (5 questions), and professional efficacy (6 questions). High scores on the exhaustion scale represent feelings of significant strain and burnout, whereas on the cynicism scale they mean loss of interest and a tendency to distance oneself from one's work and clients. On the scale of professional efficacy high scores represent confidence in one's skills and professional competence. The Cronbach alpha reliabilities for exhaustion, cynicism and professional efficacy were 0.90, 0.82 and 0.80, respectively.

Data Analysis

The extent to which the strategy factors and work-life related factors contributed to the different dimensions of job burnout were examined by using hierarchical regression analysis in which new groups of explanatory variables were added into the analysis as follows (Table 1). In the analysis job burnout was explained first by work-life related factors and then by strategy factors. Gender and age were controlled for in the first step. By changing the strategy factors into explanatory variables before the work-life related factors, the hierarchical regression analysis defined which factors better explained the dimensions of job burnout and whether the strategy factors had a mediator effect.

Table 1. Hierarchical regression. The relation between achievement and social strategies, work-life related factors and the dimensions of burnout.

	Exhaustion			Cynicism			Professional efficacy		
	ΔR^2	β	r	ΔR^2	β	r	ΔR^2	β	r
STEP 1									
demographic factors	.01***			.02***			.00		
age		.10***	.10***		-.04	-.05*		.03	.04
gender		.02	.03		-.11***	-.12***		.03	.04
STEP 2									
strategies	.11***			.17***			.19***		
optimism		-.15***	-.30***		-.17***	-.28***		.32***	.41***
avoidance		.11***	.22***		.15***	.27***		-.07**	-.24***
social pessimism		.08**	.25***		.14***	.33***		-.10***	-.32***
social optimism		-.12***	-.22***		-.11***	-.30***		.05*	.21***
STEP 3									
work-life									
related factors	.30***			.22**			.10***		
workload		-.45***	-.56***		-.06**	-.24***		-.12***	.03
control		-.11***	.34***		-.15***	-.39***		.16***	.31***
reward		-.04	-.30***		-.13***	-.42***		.16***	.33***
community		-.07**	-.34***		-.15***	-.44***		.10***	.30***
fairness		-.06*	-.34***		-.02	-.40***		-.04	.25***
values		-.08***	-.33***		-.22***	-.47***		.07**	.27***
R²	**.42**			**.41**			**.29**		

*p<.05, **p<.01, ***p<.001

RESULTS

Our first aim was to examine to what extent achievement and social strategies would be related to the different dimensions of job burnout. The results of the hierarchical regression analysis presented in Table 1 showed that the strategy factors explained 11 per cent of the variance of exhaustion ($F(4, 1607) = 51.33$, $p \leq .001$), 17 per cent of the variance of cynicism ($F(4, 1605) = 80.53$, $p \leq .001$), and 19 per cent of the variance of professional efficacy ($F(4, 1606) = 94.58$, $p \leq .001$). The *beta* values for the independent variables showed that the less employees used optimistic achievement strategies and social optimism and the more they used avoidant achievement strategies and social pessimism, the more emotional exhaustion they experienced, the more cynical they were and the weaker their professional efficacy was, compared to employees, who used optimistic achievement strategies and social optimism more and avoidant achievement strategies and social pessimism less.

Our second aim was to examine to what extent work-life related factors (workload, control, reward, community, fairness, and values) are related to the dimensions of job burnout. The regression analysis showed that in the first analysis, when the work-life related factors were set as explanatory variables before the strategy factors, the work-life related factors explained 39 per cent of the variance of exhaustion ($F(6,1605) = 171.15$, $p \leq .001$), 35 per cent of the variance of cynicism ($F(6,1603) = 146.25$, $p \leq .001$), and 19 per cent the

variance of professional efficacy ($F(6,1604)=61.00$, $p \leq .001$). The *beta* values for the independent variables showed that the higher the workload, the weaker the possibilities to control one`s work, the lower the sense of community, and the more value conflicts there were, the more emotional exhaustion employees experienced, the more cynical they were, and the weaker their professional efficacy was, compared to employees, who had a satisfactory workload, possibilities to control their work, the stronger sense of community, and no value conflicts.

Finally, our third aim was to examine whether the achievement and social strategies or the work-life related factors would be more strongly related to job burnout. This was examined by changing the strategy factors into explanatory variables before the work-life related factors in the second analysis (Table 1). The results showed that the work-life related factors explained 30 per cent of the variance of exhaustion ($F(6, 1601) = 135.04$, $p \leq .001$), 22 per cent of the variance of cynicism ($F(6, 1599) = 99.75$, $p \leq .001$), and 10 per cent of the variance of professional efficacy ($F(6, 1600) = 34.08$, $p \leq .001$). The results showed that the work-life related factors significantly explained the variance of the different dimensions of job burnout even when the strategy factors were controlled for. The *beta* values for the independent work-life related variables showed the same results as in the first analysis. In Table 1 the variables explained the variance (R^2), changes in the variance (R^2 addition), the *beta* values for the variables (β), and the correlations between the variables (r).

However, we hypothesised (Hypothesis 3b) that strategies would have a mediator effect. A mediator effect would be observed if there is a significant correlation between (1) the work-life related variable and the burnout variable, and between (2) the work-life related variable and the strategy variable, if 3) the strategy variable significantly explains the burnout variable, when the strategy variable has been controlled for. A perfect mediator effect would be observed, if 4), when the strategy variable has been controlled for the *beta* value for the work-life related variable in relation to the burnout variable disappears (see Kenny & Kashy & Bolger, 1998). The existence of a mediator between the strategy factors is indicated if the work-life related factors explain less of the variance of the dimensions of job burnout and the independent *beta* values for the work-life related factor decrease (see Baron & Kenny, 1986**).

The results showed, first, that the work-life related factors were more strongly related to exhaustion than achievement and social strategies, but they explained less of the variance of exhaustion when the effect of strategies was controlled for (.30, $p \leq .001$; in the first analysis .39, $p \leq .001$). In particular, the *beta* value for workload in relation to exhaustion remained substantial (.45, $p \leq .001$), even when the effect of the strategy factors was controlled for (.46, $p \leq .001$ in the first analysis). However, the *beta* valu*e* for reward was not significantly related to exhaustion in the second analysis (-.04, $p > .05$; -.06, $p < .01$ in the first analysis). The analysis showed further that the work-life related factors were directly related to the experience of job burnout, except for reward, which in the case of exhaustion was mediated by strategies. A small amount of insufficient reward was reflected in the strategy factors by a reduction in the use of optimistic strategies and by an increase in pessimistic achievement strategies and social pessimism, which in turn increases the experience of exhaustion.

Second, the results showed that the work-life related factors were more strongly related to cynicism than were the strategy factors, although they explained less of the variance of cynicism when the strategy factors were controlled for (.22, $p \leq .01$; in the first analysis .35, $p \leq .001$). In particular, the *beta* values for value conflicts on cynicism remained when controlled for strategies (-.22, $p \leq .001$, and -.24, $p \leq .001$ in the first analysis). However,

especially lack of optimistic achievement strategies in particular was related to cynicism (-.17, $p \leq$.001; in the first analysis -.02, $p >$.05). The *beta* values for the independent variables showed that the heavier the workload, the less reward, and the lower the sense of community, the less employees used optimistic strategies, which in turn were related to cynicism.

Third, the results showed further that, after controlling for strategies, the work-life related factors explained significantly less (10 per cent) of the variance of professional efficacy (.19, $p \leq$.001 in the first analysis). The use of optimistic achievement strategies and the slight use of avoidant achievement strategies and pessimistic social strategies were significant for professional efficacy. The *beta* values for possibilities to control one's work (.20, $p \leq$.001 in the first analysis), for reward (.20, $p \leq$.001 in the first analysis) and for sense of community (.16, $p \leq$.001 in the first analysis) remained almost the same after controlling for strategies, whereas the *beta* value for social pessimism (.05, $p <$.01 in the first analysis) rose. The *beta* values for the independent variables showed that the more suitable the workload, the greater the reward, the greater the sense of community, the greater the use of optimistic strategies, the less social pessimism, and the greater professional efficacy the employees reported.

DISCUSSION

Both psychological characteristics, such as achievement (Nurmi, Aunola, Salmela-Aro & Lindroos, 2002; Määttä, 2007) and social strategies (Eronen et al., 1997; Nurmi, Toivonen, Salmela-Aro, & Eronen, 1996), and work-life related factors (Maslach & Leiter, 1997; Maslach, Schaufeli,& Leiter (2001).) can contribute to job burnout. Job burnout has been examined previously for the influence of these two types of factors separately, but no prior studies have combined them. The aim of this study was to find out how both the strategies used by employees and work-life related factors would contribute to job burnout.

The findings supported our hypotheses. We hypothesised first that all the strategy factors would be related to job burnout. Our results showed that exhaustion was best explained by lack of optimistic achievement strategies and lack of social optimism and by the excessive use of avoidant achievement strategies. Cynicism was explained by both achievement and social strategies, while professional efficacy was best explained by the more frequent use of optimistic achievement strategies and less frequent use of pessimistic social strategies. These results are consistent with earlier research results. Earlier results have found a relationship between active problem solving, which is a typical feature for optimistic achievement strategies, and a low level of exhaustion, low cynicism, and high professional efficacy (Lee & Ashforth, 1993; Leiter, 1991; Wilk & Moynihan 2005). Moreover, social strategies were related to all the dimensions of job burnout. This supports the results obtained by studies in other fields of life (e.g. see Eronen et al., 1997; Nurmi, Toivonen, Salmela-Aro, & Eronen, 1996). These findings support our hypotheses 1a and 1b. These results stress the importance of paying attention both to the achievement and social strategies used by employees, when seeking to prevent job burnout in organizations. The findings support also the results obtained by studies of positive emotions in difficult situations. Employees´ beliefs and expectations help to motivate and sustain coping and well-being in demanding life conditions (Park & Folkman, 1997; Folkman, 2008). Optimism can both buffer problematic situational work-life

factors (Carver, Scheier, & Weintraub, 1989; Savicki, 2002) and cushion occupational stress (Mäkikangas, 2007; Mäkikangas & Kinnunen, 2003; Otero-López, Mariño, & Bolaño, 2008).

We hypothesised further that the most common factor related to job burnout, excessive workload, would be related to all the dimensions of job burnout. The results showed that excessive qualitative or quantitative workload was related to all the dimensions of job burnout and that this relation was strongest with exhaustion. This result supports hypothesis 2a and the results of earlier studies (Lee & Asforth, 1996) according to which excessive workload is the most significant cause of exhaustion. Professional efficacy was best explained by having possibilities to control one´s work and reward. This result supports our hypothesis 2b and is consistent with an earlier finding (see Lee & Asforth, 1996) that reward was associated with professional efficacy and that the experience of burnout was higher in jobs characterised by weak possibilities to control one's work and which make high demands on the worker than in jobs characterised by good possibilities to control one's work.

We hypothesised further (Hypothesis 3) that work-life related factors would be more strongly related to job burnout than achievement and social strategies. The results revealed that both strategies and work-life related factors explained job burnout. The work-life related factors explained job burnout significantly better than did the strategy factors. Workload remained the most significant predictor of exhaustion when the strategy factors were controlled for. These findings support our hypothesis 3a. However, the analysis showed further that there was a partial or complete mediator effect (Baron & Kenny, 1986; Kenny, Kashy & Bolger, 1998). The mediator effect of strategies was manifested as complete loss of the *beta* value between insufficient reward and exhaustion after controlling for strategies. At the same time the *beta* value between both the lack of social optimism and excessive use of social pessimism and exhaustion became statistically significant. This supports the results of Furnham (2001) who found that the relationship between employees and work is the cause of burnout. Thus the use of optimistic social strategies can reduce exhaustion even when the reward from work is insufficient. This is in line with our hypothesis 3b.

Cynicism was best explained by value conflicts, the *beta* value of which remained when controlled for strategies. However, the lack of optimistic achievement strategies (.02, NS in the first analysis), in particular, became statistically significant when the strategy factors were controlled for. It is possible that the lack of optimistic strategies acts, at least in part, as a mediator between cynicism and work-life related factors. Work-life related factors, especially value conflicts, can lead to the lack of optimistic achievement strategies, which in turn lead to failures in work and decreased motivation employee motivation and thus negative employee attitudes towards work and towards the organization. This result supports our hypothesis 3b. The result is consistent with that of earlier studies where conflicts have been found to exist between the values of an employee and those of the organization. An example is a situation in which employees feel that they are forced to act unethically (Maslach & Leiter, 1997). Increasing cynicism is understandable in situations where the organization's values are purely financial. The new model of coping strategies emphasizes meaning-focused coping including positive emotions, which in turn sustain well-being and influence the stress process by sustaining coping over the long term (Folkman,1997; Folkman, 2008). It might be possible that by using positive coping strategies employee cynicism could be reduced. By reordering their priorities employees could perhaps find more shared values with their organizations. In line with this assumption, research has showed that conflicts between the values of an employee and those of the organization are related to cynicism (Folkman, 2008). In order to

prevent cynicism and motivate employees, it would be important to pay attention to work-life related factors and increase support from supervisors.

As explained earlier, professional efficacy was best explained by possibilities to control one`s work and reward, which can buffer against job burnout. After controlling for the strategy factors the *beta* value for control, reward, sense of community and values decreased, and the role of social pessimism increased (-.05 NS in the first analysis). Social pessimism is a mediator between control, reward, sense of community, values and professional efficacy, and thus could lead to low professional efficacy. These findings further support our hypothesis 3b. Our results indicate that it might be possible to reduce job burnout and influence the strategies used by employees by enabling them to experience success in work assignments, and possibilities to control their work, those by helping them to maintain their use of optimistic strategies and their professional efficacy. In addition, possibilities for solution-focused discussions about possible problems in the work community could help to sustain professional efficacy. Earlier research has found that optimistic coping strategies in achievement and social situations can support well-being in difficult life situations (Folkman, 2008).

Finally, fairness correlated significantly with the dimensions of burnout in this study. However, the *beta* value for fairness was not significant between any of the dimensions of job burnout. Fairness was the only factor which was not related to the dimensions of job burnout either in the first analysis or after controlling for strategies. The reason could be the multicorrelation observed between the variables. Further research is needed to reveal the relation between fairness and burnout, since in prior research lack of fairness has been related to burnout (Maslach, 2003, Maslach et al., 2001).

The results suggest that job burnout could be prevented, first, by improving work-life related factors and, second, by seeking to promote the use by employee coping processes such as achievement and social strategies, so as to encourage them to develop a positive attitude towards their work and work-life related situations. The positive psychology approach suggests that optimism such as having expectations of positive outcomes, may be trainable (Seligman, 1991; Seligman & Csikszentmihalyi, 2000). According to earlier research individual strategies interact with organizational characteristics, and can thus expose employees to job burnout (Maslach, 2001; Schaufeli & Enzman, 1998). It has been shown that cognitive and behavioural strategies provide a basis for a success (Aunola, Stattin & Nurmi, 2000). The meaning which employees attribute to the situations and whether positive emotions are associated with the strategie, employees use to regulate stress is constructed on the basis of interaction (Folkman, 1997; Folkman, 2008).

This chapter provides new information about the effects of work-life related factors, and coping and strategy factors on the different dimensions of job burnout. The research found a direct relation between work conditions and job burnout on the one hand and achievement and social strategy factors and job burnout on the other. This research is useful because the organizations selected for study represented diverse occupational fields, and thus the group of the research subjects was heterogeneous and quite large. The research yields some theoretical information about the relationship between strategy factors and work-life related factors and the different dimensions of job burnout. The research could be of value in organising, planning, and leading work in workplaces and in seeking to prevent and reduce job burnout. (Lee & Asforth, 1996; Leiter & Maslach, 2000; Mäkikangas & Kinnunen, 2003). The results

could be used in interventions both in organizations and on individual level after job burnout has occurred (Maslach & Leiter, 1997).

The research has some limitations. First, the cross-sectional design does not allow causal inferences to be made. A longitudinal design would be required to test the causal implications of the research presented here. Second, the data is based on self-reports. This emphasizes the importance of the validity of the measuring indicators need to assess the reliability of the results (Spector, 1997). It would also have been ideal to have been able to classify the respondents according to peer assessment and/or expert assessment.

CONCLUSION

In conclusion, job burnout was better explained by work-life related factors than by strategy factors, while the strategy factors had a mediator effect on exhaustion, cynicism and professional efficacy. Thus, insufficient reward can lead to lack of social optimism and the use of social pessimism, which in turn lead to exhaustion. Work-life related factors can lead to insufficient use of optimistic achievement strategies, which in turn can lead to negative attitudes and cynicism towards work and towards the organization. Further, insufficient possibilities to control one´s work, insufficient reward and diminished sense of community can lead to social pessimism, which in turn reduces professional efficacy.

Further studies could usefully examine how job burnout occurs in different organizations. A longitudinal design would be required to test the causal implications of the analysis presented here.

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Appendix 1. Means, standard deviations, Cronbach's alphas and first order correlations of the study variables.

n	M	SD	Alpha	Range	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Measuring																			
Demographic factors																			
1. Age	40.59	10.11		18-63	-														
2. Gender	1.66	0.47		1-2	.11***	-													
Work-related factors																			
3. Workload	3.11	0.83	.71	1-5	.17***	-.08**	-												
4. Control	3.54	0.93	.68	1-5	.01	-.11***	.21***	-											
5. Reward	3.30	0.87	.76	1-5	.04	.08***	.20***	.37***	-										
6. Community	3.79	0.78	.74	1-5	-.02	.02	.24***	.33***	.47***	-									
7. Fairness	3.10	0.77	.72	1-5	.03	-.05*	.25***	.49***	.52***	.52***	-								
8. Values	3.48	0.77	.74	1-5	.12***	.06*	.22***	.42***	.35***	.40***	.47***	-							
Strategy factors																			
9. Optimism	3.98	0.59	.77	1-5	-.05*	-.09***	.14***	.24***	.21***	.24***	.19***	.20***	-						
10. Avoidance	1.99	0.79	.76	1-5	-.04	.02	-.12***	-.10***	.12***	.11***	.09***	.14***	.36***	-					
11. Social pessimism	1.80	0.69	.64	1-5	- 03	.00	-.13***	-.19***	.27***	.30***	.22***	.19***	.53***	.34***	-				
12. Social optimism	3.98	0.69	.65	1-5	.09***	.19***	.18***	.12***	.21***	.32***	.17***	.20***	.29***	-.14***	.42***	-			
Job burnout factors																			
13. Exhaustion	2.08	1.31	.90	0-6	.10***	.03	-.56***	-.34***	.30***	.33***	.35***	.34***	.27***	.20***	.25***	.21***	-		
14. Cynicism	1.75	1.29	.82	0-6	-.05*	-.13***	-.25***	.38***	.41***	.44***	.41***	.46***	.28***	.25***	.33***	.29***	.54***	-	
15. Professional efficacy	4.43	1.04	.80	0-6	.03	.04	.03	.32***	.32***	.29***	.25***	.27***	.40***	-.23***	.31***	.21***	.15***	.27***	-

p<.05, **p<.01, ***p<.001   Gender,
1=male,
2 =female

II

GENDER DIFFERENCES IN ACHIEVEMENT AND SOCIAL STRATEGIES, AREAS OF WORKLIFE AND BURNOUT AT THE EARLY CAREER STAGE

by

Hely Innanen & Katariina Salmela-Aro
Youth and work transitions in changing social landscapes, 158–172

III

BURNOUT, WORK ENGAGEMENT AND WORKAHOLISM AMONG HIGHLY EDUCATED EMPLOYEES: PRIOFILES, ANTECEDENTS AND OUTCOMES

by

Hely Innanen, Asko Tolvanen, & Katariina Salmela-Aro, 2014

Burnout Research, 1, 38–49

Research Article

Burnout, work engagement and workaholism among highly educated employees: Profiles, antecedents and outcomes

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A B S T R A C T

The present study examined the longitudinal profiles of burnout, engagement and workaholism among highly educated employees. First, the latent profile modeling indicated two latent classes: Engaged and Exhausted-Workaholic. Second, the results revealed that employees with the Engaged profile experienced high levels of energy and dedication, whereas employees with the Exhausted-Workaholic profile experienced exhaustion, cynicism and workaholism. Social pessimism in the transition from high education to work predicted poor subjective well-being at work. Further, workaholism decreased during the career among members of the Exhausted-Workaholic profile suggesting positive direction during career. Finally, Engaged employees experienced detachment and relaxation, life satisfaction and rewards.

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1. Introduction

The main aim of this longitudinal study was to identify different profiles of subjective well-being at work (i.e. burnout, work engagement and workaholism) among highly educated employees. We targeted this group of employees as their work fulfills the criteria proposed by the theory of work engagement and burnout: high education may increase work engagement when faced with emotionally challenging work (Xanthopoulou, Bakker, & Fischbach, 2013), and it may protect against risk of burnout (Ahola et al., 2004). As our theoretical framework, we applied the circumplex model of subjective well-being (SWB) at work (Bakker & Oerlemans, 2011) (see Fig. 1).

The majority of the existing research on burnout and work engagement has taken a variable-oriented approach (for example (Bakker, Demerouti, & Euwema, 2005; Freudenberger, 1974; Maslach, Leiter, & Schaufeli, 2009; Kahn, 1990)). The results of such studies have indicated, for example, that burnout (Hakanen, Schaufeli, & Ahola, 2008), and work engagement (Seppälä et al., 2009) are stable over time. However, a stability coefficient does not demonstrate dynamic developmental processes of work-related well-being over time, and it also fails to take into account inter-individual differences. A person-oriented approach,

in turn, assumes population heterogeneity with respect to the phenomenon of interest (here SWB at work) and changes in it (see (Laursen & Hoff, 2006a)). Such an approach may lend additional support to the theory of SWB at work by taking account diversity in SWB on the individual level by identifying different groups of employees who follow a similar pattern of development of SWB over time. A few previous studies have applied a person-oriented approach in the area of work and organizational psychology (Boersma & Lindblom, 2009; Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012; Feldt et al., 2013; Mäkikangas, Feldt, & Kinnunen, 2007). The present study contributes to the literature by adopting a person-oriented approach (Bergman & Trost, 2006; Laursen & Hoff, 2006b) in order to gain a deeper understanding of SWB at work on the individual level. Specifically, our aim was to identify the proportion of highly educated employees experiencing low activation and displeasure, and thus at the highest risk for severe burnout. Conversely, we expected to find employees who are engaged, highly activated and experiencing pleasure (Bakker & Oerlemans, 2011). By adding the impact of workaholism into the SWB profiles, we hoped to gain a deeper understanding of the role of all the factors relating to the different profiles of SWB at work, and so contribute to filling an important gap in the research literature.

The nature of the present study is explorative. Thus, we are cautious about precisely formulating potential longitudinal profiles or means, or possible mean changes in the SWB profiles (including the variables of simultaneous burnout, work engagement and workaholism) (Feldt et al., 2013). At the very least, we

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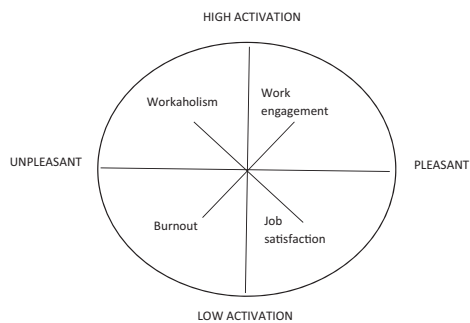
Fig. 1. A two dimensional view of work-related subjective well-being (adopted from Bakker and Oerlemans (Feldt et al., 2013)). A simplified model.

expected to find heterogeneity in SWB at work in a sample of highly educated employees with diverse occupational and organizational backgrounds. Furthermore, we expected to find at least one longitudinal high-level work engagement profile (with simultaneous low-level burnout and low workaholism) (Bakker & Oerlemans, 2011) and one longitudinal high-level burnout profile (with simultaneous high level workaholism and low level work engagement), as examples of these have previously been found in the Finnish working population (for review see (Ahola et al., 2004; Kauppinen et al., 2012)). In accordance with the model of SWB at work (Bakker & Oerlemans, 2011), we expected workaholism to be higher in the profiles characterized by burnout, as employees who mainly experience negative emotions at work tend to suffer simultaneously from burnout and workaholism.

Finally, to deepen our understanding of the antecedents and outcomes of SWB at work, we examined the profiles obtained, first, with respect to achievement and social strategies in the transition from university to work, as antecedents of the emergent profiles. Second, we examined the profiles obtained with respect to recovery strategies, life satisfaction, rewards and sense of community as outcomes of the emergent profiles.

1.1. SWB at work

Traditionally, subjective well-being has referred to how an individual evaluates his or her life and well-being (Diener, Sandvik, & Pavot, 1991a). In line with the definition of the more recent circumplex model of SWB at work by Bakker and Oerlemans (Bakker & Oerlemans, 2011) (see Fig. 1) affective states of SWB at work arise along two continua: the pleasure–displeasure continuum and the high activation–low activation continuum. These affective states can be described as a linear combination of these continua, that is, of pleasure and activation (Russell, 2009). Consequently, the level of simultaneous activation and pleasure defines an employee's SWB at work.

More specifically, in the circumplex model of SWB at work (Bakker & Oerlemans, 2011) (Fig. 1) the quadrant characterized by positive emotions and high activation is likely to result in work engagement, and the quadrant characterized by positive emotions and low activation is likely to result in job satisfaction. Further, the quadrant that is characterized by negative emotions and low activation is likely to result in burnout, and the quadrant characterized by negative emotions and high activation is likely to result in workaholism. In the present study we focused on the three quadrants (burnout, work engagement and workaholism) relevant for the present study. Although we adopted the SWB at work model

(Bakker & Oerlemans, 2011), we were not aiming to test the model itself. Instead, we adopted the model for the purpose of examining the SWB profiles, and thus we did not include the quadrant of job satisfaction in our study. The current view of work engagement and burnout on the basis of both Finnish and international studies is that positive and negative states of SWB at work represent different phenomena which employees can nevertheless experience simultaneously (Hakanen, Bakker, & Demerouti, 2005; Folkman, 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002).

1.1.1. Work engagement as a positive form of SWB at work

Work engagement, defined as a positive work-related state of mind (Bakker & Demerouti, 2008), has been previously characterized either as the polar of burnout in the same continuum (Maslach et al., 2009) or as a conceptual opposite, i.e. an independent positive construct, negatively related to burnout (Schaufeli et al., 2002). To gain the best understanding of SWB at work, we examined work engagement as an independent three-dimensional positive construct (including energy, dedication, absorption), operationalized according to the definition by Schaufeli and his colleagues (Schaufeli et al., 2002). Energy refers to high levels of mental energy, dedication describes the cognitive dimension of work engagement, including a sense of meaningfulness and challenge, and absorption refers to being fully focused (Schaufeli et al., 2002) and deeply preoccupied in one's work to the extent that it is difficult to stop working. Engaged employees are enthusiastic and energetic, involved and reasonably committed to their work. They put all their physical, emotional and mental energies into their work, and therefore are capable of optimal performance and feel positive emotions at work (Kahn, 1990; Gorgievski & Hobfoll, 2008). As a consequence, they work long hours, but feel pleasure (Aspinwall & Taylor, 1992) and are not addicted to work (Bakker & Demerouti, 2008).

1.1.2. Burnout and workaholism as a negative form of SWB at work

Negative indicators of SWB at work include burnout and workaholism (Bakker & Oerlemans, 2011) (Fig. 1). The three-dimensional model of burnout comprises high levels of exhaustion and cynicism and a low level of professional efficacy (Maslach, Schaufeli, & Leiter, 2001). Exhaustion refers to the stress dimension of burnout and to a lack of mental energy; cynicism, the cognitive dimension of burnout, refers to negative attitudes toward one's work and co-workers; and professional efficacy refers to one's beliefs in one's efficacy at work (Maslach & Leiter, 2008). Recently, increased research interest has been shown in workaholism, the other negative form of work-related well-being in the circumplex model of SWB (Hakanen & Schaufeli, 2012a). Workaholism is generally described as a tendency to work excessively hard (Oates, 1968; McMillan, O'Driscoll, Marsh, & Brady, 2001), and is marked by being obsessed with work and unwillingness to disengage from work (i.e. psychological dependence on work) (McMillan & O'Driscoll, 2004; Shimazu & Schaufeli, 2009). Workaholics have an extremely powerful desire to achieve (Mudrack, 2006; Mudrack & Naughton, 2001), and hence are unable to resist a compulsive need to work (Taris, Schaufeli, & Shimazu, 2010). In pursuit of achievement, workaholics expend a lot of energy on work without sufficient recovery (Sonnentag & Zijlstra, 2006; Porter, 2001). The most obvious characteristic of workaholics is an addiction to work, meaning that they tend to work harder than is required and reject other life contexts (Schaufeli, Taris, & Bakker, 2008). Berglass (Berglass, 2013) found workaholics' lack of the capacity or willingness to engage in intimacy with others (i.e. a propensity to social pessimism). Thus, focusing on work may serve as an excuse to avoid participating in social functions at work. As a consequence they have poor relationship quality (Bakker, Demerouti, & Burke, 2009), and poor life satisfaction (Taris, Schaufeli, & Verhoeven, 2005).

1.2. The role of career stages in experiences of SWB at work

Career stage is of relevance in the longitudinal examination of highly educated employees' experiences of SWB at work. According to the life-span theory of motivation, individuals experience different developmental environments and tasks depending on their age (Havighurst, 1980). Havighurst (Havighurst, 1980), in his traditional theory of developmental tasks, proposed that coping with the tasks of a given life stage provides the basis for coping at the next life stage. Furthermore, in his theory of careers, Super (Super, 1990) showed that during different life stages individuals accomplish developmental tasks as part of their career decision-making process, and that success in these is related to their experiences of SWB at work. Career stages that have been identified are exploration (age 14–24), establishment (age 25–44), maintenance (age 45–60), and disengagement (age 61 or older) (Taris et al., 2005).

Many of the transitions in an individual's life course take several years to complete. For example, a career development trajectory typically includes decisions concerning education and the further career (e.g., (Nurmi, Salmela-Aro, & Koivisto, 2002)). It has been suggested that to gain a comprehensive understanding of the role of career stages in SWB at work, a long follow-up period is needed (see also (Mäkikangas et al., 2007)). Applying the circumplex model of SWB at work (Bakker & Oerlemans, 2011), we focused on the early career (i.e. establishment stage) and on the mid-career (i.e. maintenance stage). We assumed these career stages to be relevant for emerging burnout, work engagement and workaholism.

At the early career stage, young highly educated employees experience many developmental tasks, such as fitting in with the organization, learning the job, and pursuing their career goals. Simultaneously, they have other tasks, such as being a spouse and a parent (Super, 1990). Having many simultaneous tasks at this career stage may cause some young employees to experience burnout. Similarly, in pursuit of work-related achievements, some young employees may experience workaholism as a consequence of expending a lot of energy on work without sufficient recovery (Sonnentag & Zijlstra, 2006; Porter, 2001). It has been indicated that focusing excessively on work is related to a low level of SWB at work (Porter, 2001; Burke, 2000). However, some young employees may be able to cope well with developmental tasks of this career stage and have experience of work engagement (Salmela-Aro & Nurmi, 2004). At the mid-career stage, in turn, highly educated employees are able to maintain work engagement by successfully accomplishing developmental tasks, such as work-related development – that is, determining the possibilities of this stage for further career plateauing – and high productivity. However, for some employees the developmental tasks of the mid-career stage and simultaneous early signs of their own obsolescence may induce experiences of burnout and another negative indicator of SWB, namely workaholism (Super, 1990; Greenhaus, Callanan, & Godshalk, 2009). Within this theoretical framework, we addressed the following research question:

Research question 1: What kinds of longitudinal burnout–work engagement–workaholism profiles can be identified in a sample of highly educated employees?

As already stated, because of the exploratory role of our main research aim, we were cautious about precisely formulating hypotheses on the number of longitudinal profiles. Similarly, we were not able to hypothesize means and possible mean changes in burnout, work engagement and workaholism in these yet-to-be-identified profiles. Since our sample comprises highly educated employees from diverse occupations and organizations, it is reasonable to expect heterogeneity in their experiences of SWB at work. We expected, first, to find at least one positive profile with low risk for a highly educated employee's well-being, i.e. a profile of high work engagement, low burnout and only moderate workaholism. Furthermore, at least one high risk profile with high burnout and workaholism and low work engagement, was expected. Second, we expected the majority of the employees to report experiences of high engagement and a minority to suffer from a high level of burnout. These expectations are based on our sample, which consisted mainly of highly educated women (75%). The Finnish Health 2000 Study (Ahola et al., 2004) has previously reported that a high level of education may serve as protector against risk for burnout, especially for women. Furthermore, highly educated employees have been shown to have strong self-efficacy beliefs that, in turn, increase their engagement when faced with emotionally demanding tasks (Xanthopoulou et al., 2013). These expectations are also in line with previous empirical studies (for example (Pines, 1993)), according to which highly educated employees generally have experiences of supportive feedback and sense of control over their work, and as a consequence relatively high work engagement. Finally, these expectations are supported by both the Health 2000 Study (Ahola et al., 2004), which reported that some 20% of Finnish employees experience burnout, and the Study of Work and Health in Finland (Hakanen & Seppälä, 2013), which found that nearly 90% of Finnish employees experience engagement. Results on the prevalence of workaholism in Finland have not been published.

1.3. The role of achievement and social strategies in longitudinal SWB at work

Motivation has been thought to play an important role in individual well-being (Havighurst, 1980; Emmons & Kaiser, 1996; Mauno, Kinnunen, & Ruokolainen, 2007). The life-span models of motivation assume that the challenges, and opportunities individuals experience at particular developmental stages of their lives channel their perceptions over the life stage (van Heuvel, Demerouti, Schaufeli, & Bakker, 2010) and personal goals (Little, Salmela-Aro, & Phillips, 2007; Nurmi, 1992); these, in turn, influence the ways in which people direct their development (Brandtstädter, 1984), and are also related to SWB at work at the early career stage (Heckhausen, Chang, Greenberger, & Chen, 2013).

The cognitive and behavioral patterns that accompany adaptations to the different situations that arise in this process have been defined as cognitive and attributional strategies (Nurmi, Salmela-Aro, & Haavisto, 1995). These, in turn, can be divided into achievement and social strategies. Achievement strategies, further, can be subdivided into functional, task-focused strategies (i.e. achievement optimism) and support-seeking in achievement situations (i.e. achievement support strategy) (Nurmi et al., 1995), and dysfunctional, pessimistic avoidance strategies (i.e. achievement pessimism) (Nurmi et al., 1995; van Heuvel et al., 2010). Similarly, social optimism is defined by expectations of positive outcomes in social situations, whereas social pessimism is described by social avoidance (Eronen, 2000), and self-handicapping in social situations by social anxiety (Snyder, Smith, Augelli, & Ingram, 1985). Previous studies have shown that employees using optimistic strategies tend to have experiences of work engagement (Kahn, 1990; Salmela-Aro, Tolvanen, & Nurmi, 2009; Salmela-Aro, Tolvanen, & Nurmi, 2011), and strive directly for success on the basis of their high outcome expectations (Nurmi et al., 1995). Employees using pessimistic strategies, in turn, have low outcome expectations and experience anxiety in task-related and social situations (Nurmi et al., 1995); these lead to feelings of low activation and displeasure, and are related to poor well-being. Within this theoretical framework and based on previous findings, we set the following research question:

Research question 2: Do highly educated employees' longitudinal profiles of SWB at work differ in regard to their achievement and social strategies?

In seeking answers to this question, we focused on three achievement and three social strategies, namely achievement optimism, achievement pessimism and seeking achievement support in achievement situations, and on social optimism, social pessimism and self-handicapping in social situations. We expected, in light of the life-span theory of motivation (Little et al., 2007; Nurmi, 1992) and the theory of careers (Super, 1990), according to which higher expectations would be related to effective coping and well-being in the future, and lower expectations to poor coping and poor well-being. These expectations were in line with previous findings (Aspinwall & Taylor, 1992; Salmela-Aro et al., 2009) where frequent seeking of support, achievement optimism and social optimism were related to high levels of work engagement. Generally, optimistic people adjusted better to stressors and tended to experience work engagement (Scheier & Carver, 1992). Frequent use of achievement and social pessimism and self-handicapping in social situations, in turn, have been related to high burnout (Salmela-Aro et al., 2011). Furthermore, pessimistic social strategies are typical of workaholics, who have a propensity to neglect social relations in their lives (Berglass, 2013).

1.4. SWB at work and recovery, life satisfaction, rewards and a sense of community as outcomes

We examined the outcomes of the profiles of SWB at work by examining the extent to which these profiles are related, first, to employee recovery strategies, second to life satisfaction, and finally to social areas of worklife such as experiences of rewards and sense of community.

Recovery has been seen as an important variable in a hypothetical causal string of events between the development of work-related stress and experiences of psychological overload in the longer run (Sluiter, van der Beek, & Frings-Dresen, 1999). According to the theory of chronic stress and accumulated fatigue, chronic stress can lead to lack of recovery strategies (McEwen, 1998). Employees' recovery strategies are characterized by individual experiences of psychological detachment, relaxation, control, and mastery. Psychological detachment refers to the regulation of one's leisure time (Sonnentag, Kuttler, & Fritz, 2010); relaxation refers to managing work engagement through positive ways of relaxation, such as reading a book; mastery refers to managing off-job activities (Fritz & Sonnentag, 2006) by such means as learning new skills during leisure time (Sonnentag & Fritz, 2007); and control refers to the extent to which employees are able to choose and make decisions of leisure time, for example to participate in the course and to overcome the impulse to be lazy at home. Psychological detachment from work and relaxation after work has been shown to be important for employees' recovery (Sonnentag & Fritz, 2007). Previously, poor psychological detachment has been shown to be associated with exhaustion, and mastery with work engagement (Siltaloppi, Kinnunen, & Feldt, 2009).

As already stated, coping with career-related tasks may challenge employees' well-being and existing experiences of working life (Karasek & Theorell, 1990). Thus, working environments may predict the level of SWB at work, which in turn may predict subsequent experiences of working environments (Bakker, Albrecht, & Leiter, 2011). Theoretically and according to the previous results (for example (Mäkikangas et al., 2007; de Lange, Taris, Kompier, Houtman, & Bongers, 2005a; Salanova, Bakker, & Llorens, 2006)), we expected the process of SWB and environments at work to be reciprocal rather than uni-directional. For example, depressive employees with poor SWB have perceived their working environment negatively as a consequence of applying the negative perceptual cycle, known as the "gloomy perception mechanism." In contrast, employees with high levels of engagement and comfort might report positively on their working environment by implementing the positive perceptual cycle, known as the "rosy perception mechanism" (de Lange, Taris, Kompier, Houtman, & Bongers, 2004). Engaged employees thus optimize their work environment (i.e. job crafting) (see (Bakker, 2011; Tims & Bakker, 2010)). In line with this notion, an association between SWB at work and positive outcomes has been indicated in a study applying the circumplex model of SWB at work (Bakker & Oerlemans, 2011).

Studies on the simultaneous role of different social areas at work are rare (for an exception, see (Leiter & Maslach, 2003; de Lange, Taris, Kompier, Houtman, & Bongers, 2005b)). To shed more light on social areas in working environments among highly educated employees, we focused on rewards and sense of community. Rewards include positive feedback from other people as well as personal satisfaction at work (Richardsen, Burke, & Leiter, 1992). Community, in turn, refers to the overall quality of social interaction at work, and thus includes interpersonal relationships in the organization (with supervisors, colleagues and subordinates) and social support (Leiter & Shaughnessy, 2006).

Within this theoretical framework and previous findings, we set the following research question:

Research question 3: Do employees whose longitudinal profiles of SWB at work are different also differ with respect to recovery strategies, life satisfaction, and social areas of worklife, such as rewards and sense of community, during the mid-career stage?

We expected that employees experiencing a high level of work engagement and a low level of burnout and workaholism would be more likely to experience functional recovery strategies, and a high level of life satisfaction (Hakanen & Schaufeli, 2012a; Karasek & Theorell, 1990). Further, in light of the SWB at work model (Bakker & Oerlemans, 2011), we expected that membership of the profile with high work engagement would predict a high level of life satisfaction (Hakanen & Schaufeli, 2012a; Hakanen & Schaufeli, 2012b; Hayes & Weathington, 2007), whereas coping successfully at one career stage would predict a high level of subjective well-being. These expectations are in line with the traditional SWB model (Diener, Sandvik, & Pavot, 1991b), where relations between high SWB and life satisfaction as well as happiness were observed. Finally, these expectations arose from the traditional assumption of the importance of work in defining one's identity. Thus, when experiences of work are out of balance because of poor SWB at work, a negative spillover effect on the individual's life overall, i.e. poor life satisfaction, can be expected (Kantak, Futrell, & Sager, 1992).

According to the traditional notions (Lee & Asfort, 1993), we expected that in emotionally demanding jobs, such as in jobs in teaching and jobs with demanding social relations, as is the case in our study, significant relationships might emerge between the SWB profiles and social factors in the work environment. We expected that employees with a high level of work engagement and a low level of burnout and workaholism would experience more rewards, and a stronger sense of community (Kahn, 1990; Bakker et al., 2011; de Lange et al., 2005b; Rice, 1984) than employees with a high level of burnout (i.e. "gloomy perception mechanism", low activation and displeasure) (see Fig. 1).

2. Method

2.1. Participants and procedure

This study is part of the ongoing Helsinki Longitudinal Student Study (HELS) (1991–), with an original sample of 292 university

students (77 men, 215 women). We used three measurement points. Profiles of SWB at work were measured at two measurement points, at the early career stage, at Time 2 (year 2005), and at the mid-career stage, six years later, at Time 3 (year 2011). All the respondents available at Time 2, when the SWB profiles were contacted (year 2005), 161 (40 men, 121 women; (age 32–39 years); 54.8% of original sample), were included in the present study. The same participants were examined using the Mplus estimating procedure for missing values at Time 3 (year 2011) (125 of the participants were the same at both measurement points).

The antecedents of membership of the different SWB profiles were measured at the point of transition from university to early career at Time 1 (year 2001), when the participants filled in the Strategy and Attribution Questionnaire (SAQ) (Nurmi et al., 1995). Subsequently, at Times 2 and 3, the participants filled in the Work engagement (Schaufeli et al., 2002; Kantak et al., 1992), Work Burnout (Maslach & Jackson, 2007), and Workaholism (Robinson, 1999) questionnaires. At Time 3 (year 2011), the participants also filled in the Recovery Strategy, Areas of Work Life, and Life Satisfaction questionnaires.

During their career, 75% of the participants worked in the public sector – in universities, the civil service, and municipalities – and the remaining 25% in private sector organizations. More specifically, at Time 2, the largest proportion (22.3%) were teachers or researchers, mainly in the humanities and social sciences disciplines, while the rest worked in various other fields, such as social work. Women were overrepresented (75% of the sample at Time 2 when the first profile measurements were conducted). Subordinate positions were occupied by 76.3% and managerial positions by 23.7%; 71.3% felt that their education was appropriate for their current job.

2.2. Attrition analysis

Attrition analysis indicated that the final sample ($n = 161$) did not differ in gender from non-respondents ($n = 131$). Of those who dropped out during the transition from university to work, three had died, five refused to participate, 30 had an unknown address and 12 had moved abroad. The other participants who dropped out of the study had shown less progress during their last university years than those who continued to participate ($M = 22.85$, SD = 14.11; $t(297) = -3.35$, $p < .001$). The participants in the final sample at Times 2 and 3 ($n = 161$) did not differ from those who left the study after T1 ($n = 313$) in gender [$\chi^2(1) = 1.095$, ns] or age [$t(314) = .378$, ns]. The participants in the final sample were less prone to social optimism than those who left the study after T1 [$t(188) = -2.134$, $p < .05$]. No significant differences emerged between the final sample and those who left the study after T1 to exhaustion [$t(165) = 1.584$, ns], cynicism [$t(162) = 1.010$, ns], or professional efficacy [$t(163) = 1.338$, ns]. Work engagement and workaholism were not measured at T1.

2.3. Measures

Burnout was assessed with the revised Maslach Burnout Inventory – General Survey (MBI-GS) (Maslach & Jackson, 2007). The scale includes 3 questions related to exhaustion (e.g., 'I feel emotionally drained from my work'), 3 questions on cynicism (e.g., 'I have become more cynical about whether my work contributes anything'), and 3 questions on professional efficacy (e.g., 'At my work, I feel confident that I am effective at getting things done') to be answered on a Likert-type scale from 0 (never) to 6 (daily). The items from the original scale were as follows: exhaustion 1, 2, 3 (factor loadings .92, .85, .86); cynicism 8, 14, 15 (factor loadings .76, .79, .83); and professional efficacy 5, 12, 16 (factor loadings .72, .85, .80). The construct validity of the revised MBI-GS was

good and the model fitted the data well: $\chi^2(23) = 23.562$, $p = .428$, CFI = 1.00, TLI = 1.00, RMSEA = .012, SRMR = .03 (Muthén & Muthén, 1998–2012; Muthén, 2004). Exhaustion correlated significantly with cynicism ($r = .38$, $p < .001$), and professional efficacy ($r = -.21$, $p < .01$). Cynicism correlated significantly with efficacy ($r = -.30$, $p < .001$). Internal consistencies (Cronbach's alpha α) are presented in Table 1. All the α values met the criterion of .70 (Nunnaly & Bernstein, 1994). The consistency of the scale over time was shown by α values, the levels of which were good at both measurement points.

Work engagement was assessed with the revised Finnish version of the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002; Schaufeli, Bakker, & Salanova, 2006). The UWES-9 has been shown to have good construct validity and rank-order stability in a recent Finnish study (Seppälä et al., 2009). The scale includes 3 questions related to vigor (e.g., 'At my work, I feel bursting with energy'), 3 questions regarding dedication (e.g., 'I find the work that I do full of meaning and purpose'), and 3 questions on absorption (e.g., 'When I am working, I forget everything else around me') to be answered on a Likert-type scale from 0 (never) to 6 (daily).

Workaholism was assessed with 4 questions adopted from the Work Addiction Risk Test (Robinson, 1999). Two questions measured working excessively ('I seem to be in a hurry and racing against the clock', 'I stay busy and keep many irons in the fire'), and two measured compulsion tendency ('I feel guilty if I don't work all the time'; I find myself continuing to work after my coworkers have stopped working'). The questions were rated on a Likert-type scale from 0 (never) to 6 (daily) (factor loadings .99, 1.00, 1.00, .99). The construct validity of the scale was excellent: $\chi^2(2) = .322$, $p = .852$, CFI = 1.00, TLI = 1.00, RMSEA = .00, SRMR = .00 (McEwen, 1998; Siltaloppi et al., 2009). The internal consistency, convergent validity and discriminant validity of the measurement (five items both) have been shown previously. Furthermore, the two-factor structure has shown good fit to the data in other cultural contexts (Schaufeli, Shimazu, & Taris, 2009).

Achievement and social strategies were assessed with the extended Strategy and Attribution Questionnaire (SAQ) (for details, see (Nurmi et al., 1995)). The participants were asked to rate statements on a 4-point Likert-type scale (1 = strongly agree, and 4 = strongly disagree). Achievement optimism was measured with 5 items (e.g., 'When I get ready to start a task, I am usually certain that I will succeed in it'), achievement pessimism with 6 items (e.g., 'What often happens is that I find something else to do when I have a difficult task in front of me'), and social support strategy with 7 items (e.g., 'When things don't function, it is better to talk with your partners'). Social optimism was measured with 4 items (e.g., 'In most cases, I feel I get along well with other people'), social pessimism with 5 items (e.g., 'I often have more important things to do than spend time with my colleagues'), and self-handicapping with 4 items (e.g., 'I often avoid group situations and I'd rather be alone or together with one person at a time').

The items for rewards and a sense of community were drawn from the Areas of Worklife Survey (AWLS) (Leiter & Maslach, 2003). In the present study, these were 28 and 29 for rewards (e.g., 'My work is usually noticed') and 31 and 33 for sense of community (e.g., 'I am a member of a supportive team'), which characterize the social dimensions of work environments. Respondents indicated their degree of agreement with these statements on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The factor loadings for rewards were .75, .69, and for sense of community .88, .54. The inter-item correlations were for good for both rewards ($p < .001$), and sense of community ($p < .001$).

Recovery strategies were assessed by the revised version of the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). Each type of recovery strategy was measured by two items: e.g., 'I distance myself from my work' (detachment), 'I spend time

Table 1
The descriptives of the study variables ($N = 161$).

Variable items	Number of	Range	Mean (SD)			Cronbach's alpha		
			T1	T2	T3	T1	T2	T3
Social support	6	1–4	3.19 (.40)	–	–	.85	–	–
Achievement pessimism	6	1–4	1.81 (.54)	–	–	.75	–	–
Achievement optimism	4	1–4	3.55 (.43)	–	–	.81	–	–
Self-handicapping	5	1–4	2.49 (.48)	–	–	.81	–	–
Social pessimism	5	1–5	2.41 (.60)	–	–	.85	–	–
Social optimism	5	0–6	3.14 (.61)	–	–	.83	–	–
Workaholism	4	0–6	–	3.50 (1.34)	3.32 (1.32)	–	.80	.84
Exhaustion	3	0–6	–	2.29 (1.32)	2.04 (1.39)	–	.86	.89
Cynicism	3	0–6	–	1.90 (1.38)	1.66 (1.46)	–	.75	.79
Professional efficacy	3	0–6	–	4.55 (1.12)	4.55 (1.12	–	.70	.74
Vigor	3	0–6	–	4.15 (1.13)	4.15 (1.13)	–	.83	.83
Dedication	3	0–6	–	4.06 (1.28)	4.30 (1.24)	–	.87	.90
Absorption	3	1–5	–	4.17 (1.10)	4.71 (1.07)	–	.74	.78
Rewards	2	1–5	–	–	2.75 (3.72)	–	–	.72
Community	2	1–5	–	–	3.78 (1.03)	–	–	.81
Detachment	2	1–5	–	–	3.67 (.87)	–	–	.60
Mastery	2	1–5	–	–	2.92 (.94)	–	–	.71
Relaxation	2	1–5	–	–	3.62 (.89)	–	–	.71
Control	2	1–5	–	–	3.39 (1.14)	–	–	.90
Life satisfaction	2	1–5	–	–	5.03 (1.32)	–	–	.84

relaxing' (relaxation), 'I seek out intellectual challenges' (mastery), and 'I take care of things the way that I want them done' (control). Participants were asked to rate the statements on a 5-point Likert-type scale ranging from 1 (totally disagree) to 5 (totally agree). Factor loadings for control were .92, .88, for mastery: .86, .65, for detachment .57, .79, and for relaxation: .70, .80. The construct validity of the scale was moderate: $\chi^2(14) = 33.571$, $p = .002$, CFI = .953, TLI = .905, RMSEA = .088, SRMR = .045 (Muthén & Muthén, 1998–2012; Muthén, 2004). Although the p-value was <.05, all the other goodness-of-fit-values showed that the model fitted the data well. Detachment correlated with mastery ($r = .24$, $p < .01$, relaxation ($r = .43$, $p < .001$), and control ($r = .25$, $p < 01$). Mastery correlated with relaxation ($r = 36$, $p < .001$) and control ($r = .37$, $p < 001$), and relaxation correlated with control ($r = .59$, $p < 001$). All the α-values, except detachment, met the criterion of .70 (Nunnaly & Bernstein, 1994). The α value for detachment was at a moderate level. Moreover, the inter-item correlations for separate variables were good ($p < .001$).

Life satisfaction was assessed by the Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985). The scale comprises 5 questions (e.g., 'The circumstances in my life are excellent') to be answered on a 5-point Likert-type scale ranging from 1 (totally disagree) to 5 (totally agree).

2.4. Analytical strategy

Employees with similar longitudinal profiles of burnout, workaholism, and work engagement were identified by using Latent Profile Analysis (LPA) (Vermunt & Magidson, 2003), applying the missing data method, where the program estimates the values of the participants from Time 2 at Time 3. The estimation method used was maximum likelihood performed by Mplus program version 5.21 (Muthén & Muthén, 1998–2012). LPA analysis is a type of finite mixture analysis that seeks to identify the smallest number of homogenous latent classes (profiles) that adequately describe the associations among the observed continuous variables (burnout, work engagement, workaholism) (Muthén, 2004). The advantage of LPA over traditional cluster analysis is that it is model-based and permits the use of statistical criteria for deciding the number of latent classes for the core indicators of the SWB at work model. The estimation was performed step by step, starting from the one-class solution to estimate the parameters for 2, 3,…, k-class solutions (Feldt et al., 2013). To ensure the validity of each class solution, a large set of random starting values (500) for the parameters were used in the present study.

The Bayesian Information Criterion (BIC), Bootstrapped Likelihood Ratio Test and classification quality test (Entropy) – as implemented in the Mplus statistical program – were used as the statistical criteria for choosing the best-fitting model. Models with a lower BIC value and higher Entropy value fit the data better. Changes in burnout, workaholism and work engagement between measurement points were measured by multivariate analyses of covariance (MANCOVA) for repeated measures. Using the SPSS 16 and PASW Statistics 18 programs, we examined whether the latent classes would differ in background factors (gender and age). In the attrition analysis, either the chi-squared test or t-test was used. The bivariate logistic regression analysis of the PASW 18 program was used, first, to examine achievement and social strategies at Time 1 as antecedents of the longitudinal SWB profiles, and second to analyze associations between achievement and social strategies (at Time 2 and at Time 3) and the longitudinal SWB at work profiles. Multivariate analysis of covariance (MANCOVA) was used to analyze the differences between the longitudinal SWB profiles in, first, recovery strategies, second, life satisfaction, and, third, rewards and sense of community (at Time 3).

3. Results

Design of the study is presented in Fig. 2. Descriptive informations on all the study variables (number of items, ranges, means, standard deviations, reliabilities) are shown in Table 1. Table 2 reports the tested latent class solutions for the longitudinal patterns of burnout, work engagement and workaholism included in the LPA analysis (see also Appendix A). The fit indices did not support the one-class solution as compared to multi-class solutions. We compared the profiles of the different latent multi-class solutions and found theoretically meaningful patterns that remained unchanged in their content in most of the multi-class solutions (i.e. solutions with 2–4 classes).

With respect to the fit indices (see Table 2), the BIC value supported the two-class solution. Entropy was very good (.94) in the two-class solution, indicating that the two-class model provides a clear classification. On the basis of the above-described stability of the patterns as well as the information provided by the fit indices, we decided to choose a two-class solution for our subsequent analyses. We made this choice for four reasons: first, the two-class
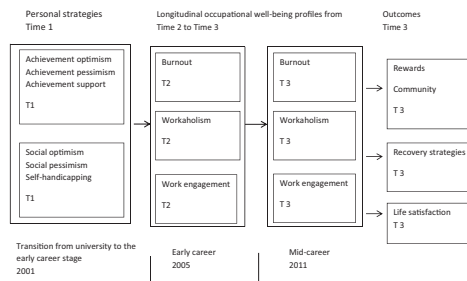
Fig. 2. Design of the study. T1, Time 1; T2, Time 2; T3, Time 3.

solution included the theoretically meaningful SWB profiles, which remained unchanged in all the multiclass solutions; second, unlike the three- and four-class solutions, the two-class solution did not produce several profiles with few members; third, the two-class solution produced theoretically justified profiles; and fourth the average latent class probabilities for the most likely latent class membership by latent class showed good levels. The two-class solution, containing two SWB profiles, is shown in Table 2. Profile I represented the low-risk profile. The participants in this profile 1 ($n = 136$; 84%) reported high work engagement and professional efficacy, low cynicism and moderate workaholism. The participants in the profile 2 ($n = 25$; 16%) reported high exhaustion, low energy and rather high workaholism. In both profiles, the employees reported high levels of professional efficacy and absorption. These two SWB profiles were labeled Engaged and Exhausted-Workaholic.

The means and mean changes for exhaustion, cynicism, professional efficacy, energy, dedication, absorption and workaholism in the two longitudinal SWB profiles are shown in Table 3. Significant and stable differences between the profiles were found in the means of exhaustion, cynicism, energy, dedication, and workaholism. A significant profile × time interaction was observed for workaholism; decreasing workaholism was found in the Exhausted-Workaholic profile.

Table 4
The results of binary logistic regression analyses (with Exhausted-Workaholic profile as the reference category) in the years 2001, 2005 and 2011 (final models).

Achievement and social strategies	β (SE)	OR (95% CI) Exhausted-Workaholic $n = 25$ (16%)
Social pessimism 2001	1.52 (0.67)	4.56* (1.24, 16.77)
Achievement optimism 2005	−1.31 (0.55)	.27* (0.09, 0.79)
Achievement optimism 2011	−1.27 (0.48)	.28** (0.11, 0.72)

Notes: OR = odds ratio, CI = confidence interval.
* $p < .05$
** $p < .01$.

The chi-squared tests revealed no significant differences between the SWB profiles in either employees' reports regarding the appropriateness of their education for their current job (options Yes or No) [$\chi^2(1, N = 161) = 0.01$, ns] or gender [$\chi^2(1, N = 161) = 0.01$, ns]. Independent samples t-test revealed no age differences between the SWB at work profiles [$t(159) = −1.09$, ns].

3.1. Achievement and social strategies as antecedents of SWB at work profiles

The results revealed that (Time 1) social pessimism in the final model, determined by bivariate logistic regression analysis, was a significant antecedent of membership of the Exhausted-Workaholic profile. To examine the role of achievement and social strategies from early to mid-career, we analyzed the simultaneous associations between achievement and social strategies and the SWB profiles at the early career and at the mid-career stages. The results showed that achievement optimism was negatively associated with membership of the Exhausted-Workaholic profile and supported membership of the Engaged profile at the early career stage, at Time 2, and at the mid-career stage, at Time 3, in the final model (Table 4).

3.2. SWB at work and recovery strategies, life satisfaction, rewards, and sense of community

At Time 3, of the four recovery strategies, the longitudinal SWB profiles showed significant differences in, first, psychological detachment and relaxation (Table 5). The employees in

Table 2
Fit indices for the longitudinal occupational well-being (burnout, work engagement, workaholism) with different numbers of latent classes (latent profile analyses).

No. of classes	Log L	BIC	Entropy	BLRT	Latent class proportions n (%)
1	−4824.92	10,005.54	–	–	161 (100)
2	−4778.39	9988.70	.94	.00	136 (84)/25 (16)
3	−4746.75	10,001.63	.82	.00	85 (53)/61 (38)/15 (9)
4	−4717.94	10,002.24	.86	.00	84 (52)/53 (33)/15 ((9)/9 (6)

Notes: BIC = Bayesian Information Criterion; BLRT = Parametric Bootstrapped Likelihood Ratio Test.

Table 3
Changes in burnout, engagement and workaholism according to two longitudinal occupational well-being profiles, using multivariate analyses of covariance (MANCOVA) for repeated measures (gender and age were controlled for).

	Engaged ($n = 136$) M (SE)		Exhausted-Workaholic ($n = 25$) M (SE)		Pattern differences F	Time effect F	Pattern × Time F
	T2	T3	T2	T3			
Exhaustion	1.98 (.10)	1.71 (.12)	4.53 (.22)	4.07 (.26)	153.48***	1.21 ns	.31 ns
Cynicism	1.64 (.12)	1.55 (.15)	3.93 (.26)	3.54 (.32)	76.93***	1.62 ns	.49 ns
Professional efficacy	4.56 (.11)	4.16 (.12)	4.59 (.23)	4.18 (.26)	3.28 ns	.23 ns	.01 ns
Energy	4.35 (.11)	4.41 (.11)	3.09 (.24)	3.28 (.24)	27.11***	1.36 ns	.30 ns
Dedication	4.30 (.12)	4.33 (.12)	2.63 (.24)	3.05 (.24)	32.89***	1.95 ns	.28 ns
Absorption	4.24 (.11)	4.70 (.12)	3.94 (.27)	4.42 (.26)	1.27 ns	.01 ns	.22 ns
Workaholism	3.42 (.14)	3.17 (.13)	4.61 (.30)	4.01 (.28)	13.30***	18.95***	13.30***

*** $p < .001$.

Table 5
Mean differences in recovery strategies, experiences of rewards, sense of community and life satisfaction between the two longitudinal occupational well-being profiles using multivariate analyses of covariance (MANCOVA) (gender and age were controlled for).

	Engaged ($n=136$) M (SE)	Exhausted-Workaholic ($n=25$) M (SE)	F-test	Partial η^2
Detachment	3.79 (.82)	3.28 (.80)	9.505**	.05
Relaxation	3.73 (.83)	3.25 (.88)	6.43*	.04
Mastery	2.97 (.89)	2.58 (1.14)	3.13 ns	.02
Control	3.48 (1.14)	3.20 (1.25)	1.20 ns	.01
Rewards	3.56 (.87)	2.93 (1.12)	8.13**	.06
Community	3.84 (1.00)	3.45 (1.12)	2.50 ns	.02
Life satisfaction	5.05 (1.20)	4.20 (1.64)	7.18**	.06

* $p < .05$.
** $p < .01$.

the Engaged profile, i.e. the low-risk profile, reported more psychological detachment and relaxation than those in the Exhausted-Workaholic profile, i.e. the high-risk profile. Experiences of mastery and control, however, did not differ between the two longitudinal SWB profiles. Second, the employees in the Engaged profile reported significantly more life satisfaction, and experiences of rewards than those in the Exhausted-Workaholic profile. Experiences of sense of community, in turn, did not differ between the two SWB profiles.

4. Discussion

This study contributes to the previous studies (e.g., (Mäkikangas et al., 2007)) by utilizing a person-oriented approach, a follow-up period of six-years (the profiles), and data gathered in two waves among highly educated Finnish employees to identify longitudinal profiles of SWB at work (simultaneous burnout, work engagement, workaholism). Academically highly educated employees formed our target group, since work requiring higher education is regarded as not only as challenging (Bakker et al., 2005) but also as engaging (Seppälä et al., 2009). High education may, furthermore, increase work engagement (Xanthopoulou et al., 2013), and protect against risk of burnout (Ahola et al., 2004).

The results showed heterogeneity in the levels of, and changes in highly educated employees' SWB at work. The three quadrants (burnout, work engagement and workaholism), relevant to our aims, were included simultaneously in the LPA analysis. Overall, in line with the circumplex model of SWB at work (Bakker & Oerlemans, 2011), we expected to differentiate at least two clear longitudinal SWB profiles among highly educated employees: one low risk profile characterized by high work engagement (energy, dedication, absorption), and one high risk profile characterized by high burnout (exhaustion, cynicism, low professional efficacy) and high workaholism. Further, the achievement and social strategies of the participants had been examined during their transition from high education to early career, four years before the first analysis of their profiles of SWB at work. This had been done in order to reveal the role of achievement and social strategies as antecedents of their subsequent membership of different profiles of SWB at work. The simultaneous associations of achievement and social strategies with membership of the SWB profiles during the career were also analyzed. Furthermore, at the mid-career stage, the outcomes of membership of the two SWB profiles were examined.

First, we found as expected, the longitudinal paths of SWB at work from early to mid-career. Two distinctive profiles of SWB at work were observed: an Engaged profile (84% of employees) and an Exhausted-Workaholic profile (16% of employees). Second, the deployment of social pessimism in the transition from education

to work anticipated membership of the longitudinal Exhausted-Workaholic profile, while achievement optimism during the career was negatively associated with membership of the Exhausted-Workaholic profile, and linked to the Engaged profile. Finally, as outcomes of the two profiles, the Engaged employees experienced higher levels of psychological detachment and relaxation, rewards, and life satisfaction than their Exhausted-Workaholic counterparts.

4.1. Profiles of SWB at work from early to mid-career

Examining SWB profiles according to sub-dimensions of burnout and work engagement, provided important new knowledge of heterogeneity in SWB profiles. The results contributed to the circumplex model of SWB at work and showed longitudinally that frequent positive emotions and fewer negative emotions, typical of work engagement, indicated membership of the Engaged profile. These employees were in activation state in regard to high engagement, low burnout and moderate workaholism. The Engaged profile was characterized by high energy and dedication. Frequent negative emotions and fewer positive emotions, on the contrary, tend to be related to the Exhausted-Workaholic profile. The Exhausted-Workaholic profile was observed as a risk profile in terms of experiences of displeasure; characterized by high exhaustion, cynicism and a high level of workaholism. This result was in line with our expectations and with previous findings indicating that highly educated employees are likely to be classified in the Engaged profile (Xanthopoulou et al., 2013), and are likely to be work-engaged and committed to their organizations (Boersma & Lindblom, 2009; Pines, 1993). This result was in line with general findings on burnout and work engagement in Finnish working population (Ahola et al., 2004; Hakanen & Seppälä, 2013). One reason for the inclusion in the Engaged profile of the majority of the present sample of highly educated employees might also be their high level of education, as this may help them to pursue appropriate goals and maintain adaptive coping at different stages of their careers (Salmela-Aro & Nurmi, 2004; Nurmi et al., 1995; van Heuvel et al., 2010).

Interestingly the two profiles detected in the present study were quite the opposite of each other. When measuring burnout and work engagement simultaneously with separate measurements, the indicators of burnout, exhaustion and cynicism, the indicators of burnout (Maslach & Leiter, 2008), were at a high level in the Exhausted-Workaholic profile, and at a low level in the Engaged profile. In the Engaged profile, in turn, energy and dedication were high and in the Exhausted-Workaholic profile they were low. Professional efficacy and absorption were at the same level in both profiles, which may suggest that they are more independent factors in subjective well-being (see (Maslach & Leiter, 2008)). According to the perspective of Maslach et al. (Maslach et al., 2009), low scores on exhaustion and cynicism, and high scores on efficacy, would be indicative of job engagement in the burnout–work engagement continuum. It would be interesting to examine the SWB profiles in future studies from the perspective of the burnout–engagement continuum proposed by Maslach et al. (Maslach et al., 2009). It has been suggested that the practical significance of the burnout–work engagement continuum is that, when measuring occupational well-being among employees, work engagement represents a goal requested by applicants for burnout interventions (Maslach et al., 2009).

Noteworthy significant differences in the levels of absorption and professional efficacy between the longitudinal Engaged and Exhausted-Workaholic profiles were not observed in the present study. The levels of absorption and professional efficacy were rather high in both profiles. This result supported the theoretical framework (Schaufeli et al., 2002; Oates, 1968; McMillan et al., 2001),

according to which high absorption in work could be a factor in both high and poor SWB at work (i.e. related to burnout, work engagement, and workaholism (Bakker & Oerlemans, 2011), and that professional efficacy and absorption could represent more independent factors in subjective well-being (Maslach & Leiter, 2008; Schaufeli et al., 2006). This result may also further support the view that the role of education in SWB at work is important. Further, a favorable change in the experience of workaholism was observed among those in the Exhausted-Workaholic profile from early to mid-career. At the beginning of their career, some young highly educated employees experienced a high level of workaholism. During their career, they may continue to experience burnout but, however, less workaholism, through appropriate utilization both of their education and work experience and of more adaptive coping strategies. This result showed that those highly educated employees in the Exhausted-Workaholic profile turned to more a positive direction during their career. As expected of highly educated employees, they also showed a good level of professional efficacy during their career. For this reason, it might be possible to diminish their propensity to workaholism during their later career, and turn them more toward high pleasure/positive high activation in the circle described by the circumplex model (Bakker & Oerlemans, 2011), and along the continuum of burnout (Bergman & Trost, 2006). This result may emphasize the importance of high quality education as a basis for longitudinal SWB at work. Furthermore, this result emphasizes the importance of being able to cope successfully with developmental and career-related tasks during the early career stage in order to provide the basis for coping with career-related tasks in the mid-career stage (Havighurst, 1980; Super, 1990; Salmela-Aro & Nurmi, 2004).

4.2. The role of achievement and social strategies in the longitudinal profiles of SWB at work as antecedents and during the career

Our results supported our expectations, the life-span models of motivation (Little et al., 2007; Brandtstädter, 1984; Heckhausen et al., 2013), and previous findings (for example (Salmela-Aro et al., 2011)) according to which social pessimism is related to negative, unpleasant emotions and low expectations and further poor SWB at work (Bakker & Oerlemans, 2011). Our results were in line with the life span theory of motivation and previous findings (Salmela-Aro et al., 2009) according to which achievement optimism is associated to high work engagement and low burnout. The results revealed, first, the strong role of social pessimism, measured in the transition from education to work, as an antecedent of membership of the Exhausted-Workaholic profile, i.e. the high risk profile, later in the career. This result is significant when revealing the role of social pessimism in the face of risk for young employees' further marginalization in working life. The result suggested that frequent social pessimism in student life, and thus fewer social relationships (Mudrack, 2006; Mudrack & Naughton, 2001) may have far-reaching consequences for young adults. This result strongly suggests that further attention should be paid to motivation and adaptive social strategies in education, and especially in the transition from education to work, in order to experience further work engagement (Little et al., 2007; Nurmi, 1992; Nurmi et al., 1995).

Notably, the results showed that later on, in the early and in mid-career, achievement optimism was negatively associated with the Exhausted-Workaholic profile and had the strongest association with membership of the Engaged profile in both career stages. This result was in line with the propositions of the life-span model of motivation (for further information, e.g., (Feldt et al., 2013; Little et al., 2007; Brandtstädter, 1984; Heckhausen et al.,

2013)). Motivation and successful coping in career-related tasks could increase positive expectations of outcomes, which, in turn, could increase further achievement optimism and support membership of the Engaged profile later on (Salmela-Aro & Nurmi, 2004; Little et al., 2007). Thus, optimistic attitudes in achievement situations enabled better adjustment to stressors in career-related tasks (Aspinwall & Taylor, 1992; Scheier & Carver, 1992).

4.3. Outcomes of longitudinal SWB at work profiles

In line with our expectations and previous results (Maslach & Leiter, 2008; Sonnentag & Fritz, 2007), highly educated employees in the Engaged profile experienced higher levels of detachment and relaxation, a greater life satisfaction, and a stronger sense of sufficient rewards than employees in the Exhausted-Workaholic profile. This result strengthened the findings, based on the model of SWB at work proposed by Bakker and Oerlemans (Bakker & Oerlemans, 2011) and Russell (Russell, 2009), that positive emotions lead to work engagement, which, in turn, has positive outcomes. These results emphasized the role of high SWB at work for psychological detachment from work and relaxation. Experiences of mastery and control, however, did not differ between the two longitudinal SWB profiles, suggesting that highly educated employees might be able to master and control the relationships between work and leisure-time. Recovery has been shown to be an important variable in a hypothetical causal string of events between the development of work-related stress and experiences of psychological overload in the longer run (Sluiter et al., 1999). Our results supported the theoretical evidence and previous results according to which chronic stress may lead to lack of recovery strategies (McEwen, 1998). These results may support the phenomenon known as the cumulative cycle, according to which young adults' social pessimism in the transition from higher education to work predicts poor SWB at work, which, in turn, predicts poor psychological detachment and relaxation, and furthermore poor life satisfaction as a consequence of the negative life spiral. Most of all, our results were in line with the results of Sonnentag and Fritz (Sonnentag & Fritz, 2007), who found that feelings of psychological detachment from work were crucial for SWB at work. Finally, the results supported the theoretical argument (Kantak et al., 1992) that poor SWB at work causes negative spillover over to the individual's life overall, leading to poor life satisfaction (Hakanen & Schaufeli, 2012a).

These results also supported the theoretical notion (de Lange et al., 2005b) that individuals with poor well-being perceive their environment negatively as a consequence of the negative perceptual cycle. Individuals with high levels of engagement, instead, perceive their working environments positively by implementing the positive perceptual cycle, and thus optimizing their work environment (Bakker, 2011; Tims & Bakker, 2010). Thus, SWB at work would be a significant predictor of experiences of social areas of worklife, for example internal rewards such as a sense of work well-done and external rewards such as positive feedback of coworkers and supervisors. In line with previous findings, the present study revealed that feelings of reward, such as positive feedback from other people and personal satisfaction at work were high among members of the Engaged profile (Richardsen et al., 1992). This result emphasized the role of SWB in experiences of rewards.

Finally, from the viewpoint of practice, the results supported the circumplex model of SWB (Bakker & Oerlemans, 2011), according to which burnout and workaholism comprise the negative forms of SWB at work. Work engagement, on the contrary, is the positive form of SWB at work. Furthermore, research utilizing also sub dimensions of burnout and work engagement provides information that may be useful in the development of interventions on

an individual and an organizational level. This study emphasizes the importance of paying attention to motivation and adaptive social strategies during the stage of education, before pressures from working life start to accumulate. In Finland the occupational health care service is well organized. Thus, this study may be of great value for occupational health care service experts interested in identifying different profiles of SWB at work and developing burnout interventions during the early career stage, and thus reducing the prospect of poor SWB during the later career. The study may also be valuable for the management and Human Resources departments of organizations seeking to support work engagement.

5. Limitations

As well as contributions, our study also has some limitations. First, the sample was strongly female-dominated and restricted to employees who had graduated from the social sciences. Also, the sample consisted of graduates from only one university. However, the university in the present study was a large university in Finland. The third limitation is that all of the measures used were self-reports. Fourth, the sample size was rather small. Fifth, only social working environments were examined as outcomes of the profiles of SWB at work. Using the complete Areas of Work Life Scale would give useful further knowledge of the outcomes of these profiles. Future research on the SWB at work of highly educated employees could greatly benefit from using larger samples from several universities, also examining vocational tracks, and by gathering responses not only from employees but also from supervisors, co-workers and spouses. Replicating the findings among blue-collar workers would also bring further benefits. Moreover, a longitudinal study with more than two measurement points would offer more possibilities for estimating changes in burnout–work engagement–workaholism profiles.

6. Conclusions

The present study examined SWB at work from early to mid-career using a person-oriented approach. To profiles were identified: an Engaged profile and an Exhausted-Workaholic profile. SWB at work was at a good level among the sample of highly educated employees in Finland. The majority of employees were members of the longitudinal Engaged profile. Second, the results revealed continuity in both profiles, with only a minority of employees experienced changes in their profile. It is noteworthy that decreasing workaholism from early to mid-career was observed in the Exhausted-Workaholic profile. Third, adopting a high level of social pessimism during the transition from education to work would predispose newcomers to membership of the Exhausted-Workaholic profile. Fourth, membership of the Engaged profile was related to experiences of psychological detachment from work and relaxation, sufficient rewards, and overall life satisfaction.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

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Appendix A. Average latent class probabilities for most likely latent class membership by latent class

Most likely latent class membership	Latent class	
	1	2
1	*0.990*	0.010
2	0.031	*0.969*

Note. Values in italics represent the average posterior probability associated with the clusters to which participants are assigned.

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