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Personal Work Goals Put into Context

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Cover picture: The Tree of Opportunities by Pirkko Siivonen

ABSTRACT

Personal goal pursuit at work was investigated through participants' work- and career-related goals, that is, "personal work goals". The primary aims of this research were to investigate the contents of personal work goals in relation to occupational well-being (burnout and work engagement) and the psychosocial work environment. The features of the psychosocial work environment were measured with the Effort–Reward Imbalance model (effort, reward, and effort–reward imbalance), which also incorporates a personal feature, namely overcommitment (Siegrist, 1996). Furthermore, with a two-year follow-up, the research addressed the changes in personal work goals and how these associated with changes within the work contexts of the participants (i.e., psychosocial work environment). The participants consisted of 747 Finnish managers (age range 24–35 years) in 2006 and 423 participants in the follow-up study in 2008. First, the findings showed that eight thematic categories of contents of personal work goals were found: Competence, progression, well-being, job change, job security, organisation, finance, and no work goal. Second, effort, reward, and effort–reward imbalance contributed to the contents of personal work goals in 2006. Third, the contents of personal work goals associated with burnout and work engagement in 2006: For instance, organisational goals were related to high occupational well-being, whereas well-being and job change goals were related to lower occupational well-being. Fourth, effort, reward, and effort–reward imbalance had an indirect effect through personal work goals on burnout and work engagement, but overcommitment only on burnout. Fifth, the most prominent longitudinal associations were found in relation to reward. Participants who engaged in job change goals reported a decrease in reward, whereas participants who engaged in competence or organisational goals reported an increase in reward. Participants who disengaged from job change goals reported an increase in reward and a reduction of effort–reward imbalance. Finally, participants who disengaged from job security goals reported a reduction in reward and an increase in effort–reward imbalance. To summarise, the features of the psychosocial work environment were found to have distinctive associations with the contents of personal work goals, which also contributed to the understanding of individual differences in occupational well-being.

Keywords: personal work goals, goal contents, burnout, work engagement, effort, reward, effort–reward imbalance, overcommitment

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FIGURE

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1   INTRODUCTION

1.1   Background of the research

The present research is founded upon the investigation of employees' work-
and career-related goals, namely "personal work goals", that are proposed to be
a reflection of both the employee and the context at work (Grant, Little, &
Phillips, 2007). Employees are navigating through changing work contexts that
create various opportunities and demands during their career, implying the
need for greater individual agency, adaptability, and proactivity (Briscoe & Hall,
2006; Inkson, 2006; Savickas, 1997). According to life-span theories of personal
goals, various life contexts provide different opportunities, challenges, and
constraints that can instigate goal construction and contribute to individuals'
choices and development (e.g., Baltes, 1997; Brandtstädter & Rothermund, 2002;
Nurmi, 1992; Salmela-Aro, 2009; Salmela-Aro, Aunola, & Nurmi, 2007).
Proceeding from this stance, personal goals might not only be indicative of
transitions and adaptation in these changing developmental contexts, but also
play an important role within the occupational domain.

The impact of the work environment on occupational health and well-
being has already been indicated by a large body of research focusing on the
main psychosocial stressors in work environments (for reviews, see Cooper,
Dewe, & O'Driscoll, 2001; Kahn & Byosiere, 1992; Stansfeld & Candy, 2006;
Tsutsumi & Kawakami, 2004; van Vegchel, de Jonge, Bosma, & Schaufeli, 2005).
However, no previous research exists that has directly considered the key areas
of this research; that is, investigated the contents of personal work goals in light
of the theories and research on work stress and occupational well-being. Yet, in
the field of personal goal research, various findings lead to the belief that
personal work goals should not be overlooked. For instance, the contents of
personal goals (i.e., wider life goals, Salmela-Aro & Nurmi, 2004) and appraisals
of personal work goals (e.g., Harris, Daniels, & Briner, 2003; Maier & Brunstein,
2001; Pomaki, Maes, & ter Doest, 2004) have been shown to account for
individual differences in occupational well-being. The association between goal

appraisals and occupational well-being was in fact found to persist even after controlling for features of the psychosocial work environment (Pomaki et al., 2004).

It is therefore possible that the psychosocial work environment plays a strategic role behind goal pursuit, contributing to what employees focus on at work (i.e., the contents of their personal work goals) as well as to their occupational well-being. To investigate the role of personal work goals, I adopted Little's (1996, 2000, 2007) theoretical framework of a social ecological model of well-being, which I applied and tested within the occupational domain. Little (2007) theorised that well-being is the product of the negotiation of contextual and personal features, which can be stable or dynamic in nature, in order to pursue core goals in life. The contextual and personal features are approached through the Effort–Reward Imbalance model (ERI; Siegrist, 1996), which describes the psychosocial work environment with the dimensions of effort, reward, and effort–reward imbalance, and a personal feature with the dimension of overcommitment.

The main contributions of my research stemmed from investigating the contents of self-articulated goals, which have previously drawn less research attention than goal appraisals (Nurmi, Salmela-Aro, & Aunola, 2009; Pomaki et al., 2004; Salmela-Aro & Nurmi, 2004) or, for example, the preset measures of goal orientation in various performance contexts (e.g., Brett & VandeWalle, 1999; for a review, see DeShon & Gillespie, 2005). The mixed methods approach (e.g., Creswell & Plano Clark, 2007) of this research can shed light on the relationship between the contents of ideographic goals as well as on how factors related to the work environment and occupational well-being are associated with these goals.

To the best of my knowledge, for the first time, research on personal work goals has now specifically addressed: Firstly, the relationship between a range of personal work goal contents and occupational well-being (burnout and work engagement); secondly, the role of the contents of personal work goals in the interaction between the psychosocial work environment and occupational well-being; and thirdly, the changes in the contents of personal work goals over a two-year follow-up period tapping into how these goal changes relate to changes in some of the important features of the context within which participants set their goals (i.e., psychosocial work environment).

The final main contribution of this research relates to the target group comprising 747 employees, who were in managerial positions and 36 years of age or younger at the onset of the study in 2006. Taken together, this research can yield potentially valuable practical implications concerning the psychosocial factors at work guiding interests and development in the early phases of careers in management. Due to the key position of managers in organisations, research of managers' goals can also stimulate further understanding of their occupational well-being, as well as of leadership and organisational behaviour (Bateman, O'Neill, & KenworthyU'Ren, 2002) which have also been found to have an impact on the well-being of their subordinates

(e.g., Offermann & Hellmann, 1996; van Dierendonck, Haynes, Borrill, & Stride, 2004; for a review, see Skakon, Nielsen, Borg, & Guzman, 2010).

1.2 Pursuing personal work goals

1.2.1 Personal goals in personality research

My research of personal work goals builds upon previous research of personal action that has included personal action constructs (PAC; Little, 2007) such as the following: Personal projects (Little, 1983), personal strivings (Emmons, 1986), life tasks (Cantor, Norem, Niedenthal, Langston, & Brower, 1987), future goals (Nurmi, 1987), current concerns (Klinger, 1975), and possible selves (Markus & Nurius, 1986). Personal goals are personally salient and can extend from lifelong goals (e.g., staying healthy) to immediate goals (e.g., finishing a course assignment) for achieving the expected outcomes (Little, 2007). Goals can be the foundation for initiating and regulating behaviour and emotions, as well as for guiding strategies to cope in a variety of contexts such as in the work domain (Pomaki & Maes, 2002; Salmela-Aro & Nurmi, 2004).

Personal goals and other PAC units also describe a person's personality. Personal goals have been taken into consideration in integrative frameworks of personality research that can give a more comprehensive and cohesive outline of how different personality constructs relate to each other and develop over the life-span (Little, 2007; McAdams & Pals, 2006; McAdams & Olson, 2010). It is useful to consider the presented framework of personality – consisting of dispositional traits, characteristic adaptations, and life narratives – as different levels of analyses in personality research, rather than actual layers of personality (Little, 2007). At the first level of analysis, temperament (e.g., novelty seeking, harm avoidance, reward dependence, and persistence; Cloninger, Svrakic, & Przybeck, 1993) and personality traits (e.g., the Big Five, Goldberg, 1993; McCrae & Costa, 2003) are the basic tendencies of a person that have been moulded by the multifaceted interactions between genes and environment throughout the individual's development (McAdams & Pals, 2006; McAdams & Olson, 2010).

The aforementioned PAC units refer to human agency, whereas the dispositional perspective on human personality covers the basic individual differences that, in some cases, can describe a relatively consistent approach in how the individual deals with life circumstances across the life course (McAdams & Olson, 2010; for a meta-analysis, see Roberts & DelVecchio, 2000). Through an individual's choices and striving for goals, human agency has a close connection with the individual's life context. That is, goals are considered as "characteristic adaptations" at the second level of personality research, in addition to strategies, schemas, and developmental tasks (McAdams & Olson, 2010). Previous research has already given some indication that dispositional traits relate to characteristic adaptations: Changes in personality traits were

related to changes in the importance of different goal domains (Roberts, O'Donnell, & Robins, 2004). In a similar vein, for example, neuroticism has been associated with personal project related stress among students (Little, Lecci, & Watkinson, 1992). Goals may therefore reflect how personal dispositions are acted out in various life contexts (Little, 2007; McAdams & Olson, 2010). At the highest level of goal structures, motivational theories have outlined fundamental needs promoting meaningful and healthy lives represented through constructs such as innate psychological needs (i.e., need for competence, autonomy, and relatedness; e.g., Deci & Ryan, 2000) or as self goals (i.e., agency, affiliation, and esteem; DeShon & Gillespie, 2005). These higher level goals – often paralleled with personality dispositions – can be underlying factors of the individual's choice in regard to more specific goal contents and performance (Brett & VandeWalle, 1999).

Dispositional traits, together with characteristic adaptations, shape life narratives at the third level of personality research (e.g., McAdams, 1995; McAdams, 1996; McAdams & Pals, 2006; McAdams & Olson, 2010; McGregor, McAdams, & Little, 2006). In an attempt to understand oneself, as well as to provide meaning and purpose in life, individuals construct narratives of their experiences and memories, creating an ongoing internalised life story forming their narrative identity (McAdams & Olson, 2010; McAdams & Pals, 2006; Singer, 2004). Some evidence already exists about the inter-relationships between different personality constructs and well-being outcomes: For example, life happiness was highest for students whose personal goals and life stories are consistent with their dispositional traits and, in particular, for those students whose stories and goals were socially oriented in conjunction with sociable personality traits (McGregor et al., 2006).

Traditionally, the research that has focused on the PAC units of personality analyses has examined participants' appraisals of their goals on cognitive and affective dimensions such as importance, commitment, difficulty, or conflict (for a review, see Austin & Vancouver, 1996). However, it has been shown that goal appraisals differ depending on the focus of the goal, namely, the goal content (Nurmi et al., 2009). Examining the content of personal goals is another typical approach to analysing personal goals. The wants, wishes, concerns, and intentions for the future can become evident in the contents of personal goals. The contents of personal goals can reflect the "what" of an individual's goal pursuit, such as intrinsic and extrinsic goal contents (e.g., Kasser & Ryan, 1993; Sheldon & Kasser, 1995; Sheldon, Ryan, Deci, & Kasser, 2004). A wider range of categories of personal goals have also been used to a high degree of reliability, including categories such as interpersonal, academic, work, intrapersonal, recreational, health, maintenance, and other (Little, 1983; Little & Gee, 2007). More recently, the consideration of relational aspects of personal goals has also raised interest, for instance, in terms of analysing the nature of social ties related to goals (Salmela-Aro & Little, 2007). This approach to personal goals emphasises the role of interpersonal goals (vs. self-focused

goals), as well as the inevitable roles of other people in shaping the pursuit and outcomes of a person's goals.

1.2.2   Personal goals in the interface of person and environment interactions

In this research of personal work goals, I have utilised Brian Little's (e.g., 2000, 2007) expanded social ecological model of well-being as a theoretical framework to depict person and environment interactions. This model considers personal projects as representations of "personality-in-context" (Little, 1989; see also Freund & Riediger, 2006). The social ecological model posits that personal projects reflect the negotiation between personal and contextual features. There is a continuous integration and balancing between the personal (e.g., personality traits) and contextual (e.g., schooling opportunities) features in order to sustain the personal projects that are most central to the person. These personal and contextual features can be either reasonably stable (e.g., local economy or temperament) or more dynamic (e.g., work team or coping strategies) in nature. According to the social ecological model, in addition to the direct effect of personal and contextual features on outcome measures such as well-being and adaptation, there is also an indirect effect through personal projects on well-being (for further detail, see Little, 2007). Well-being and human flourishing is enhanced through the sustained pursuit of core projects in life which can provide meaning and coherence throughout one's life-span (Little, 2007; for a review, see Wiese, 2007). That is, well-being is the result of pursuing personal projects that are experienced as manageable and meaningful, as well as respectable, positive, and rewarding to oneself and others around (Little, 2007).

The terms "personal projects" and "personal goals" are often used interchangeably in the literature. Nevertheless, Little (2007) argues that there can be a slight difference in the connotations of these terms: Personal project pursuit can refer to multiple goals and sets of actions that have a close tie to environment interactions and personal identity. However, in my research, I have selected the term "personal goal" in accordance with many other European personal goal researchers (e.g., Brandtstädter, 2009; Freund & Riediger, 2006; Nurmi et al., 2009; Salmela-Aro, 2009). As in the case of the definition of personal projects (e.g., Little, 1983), I also consider personal goals to encompass internal representations of desired states (e.g., Austin & Vancouver, 1996), as well as the dynamic aspects of person-environment interactions (e.g., Freund & Riediger, 2006).

More specifically, this research focused on the analysis of work-related personal goals, in this research referred to as "personal work goals". These personal work goals are expected to embody employees' self-imposed intentions and demands within their own work environment (Pomaki & Maes, 2002; Pomaki et al., 2004). In conventional models of person-environment interactions in the work domain, occupational well-being is described in terms of the extent to which there is a fit between personal and environmental characteristics. Instead of this rather mechanical view of working life, a more

dynamic interactional approach has been brought forward including the aspect of personal goal pursuit (Grant et al., 2007; Pervin, 1989). Accordingly, personal work goals reflect self-directed action aimed at shaping and influencing the work context, and thus goals can be studied both as predictors of occupational well-being and performance, and as outcomes within organisational life (Grant et al., 2007).

Since personal goals are interwoven with contextual features, previous personal goal research has also addressed changes in personal goals across the life-span. The mounting life-span research proposes that social, cultural, historical, and geographical factors (e.g., cultural beliefs, historical events, and institutionalised structures) create contextual resources and constraints (e.g., Baltes, 1997; Baltes & Baltes, 1990; Freund & Riediger, 2001; Freund & Riediger, 2006; Heckhausen & Schulz, 1995; Salmela-Aro, 2009). For example, Baltes and Baltes (1990) introduced in their model of selection, optimisation, and compensation (the SOC model), these general processes for managing resources and adaptation throughout the life-span. That is, development involves the selection of specific goals from a pool of possibilities, which are adjusted to the individual's internal and external resources. Optimisation refers to maximising the resources and chosen paths. Compensation, in turn, begins to play a role especially when resources and behavioural capacities are reduced or lost. Furthermore, Heckhausen & Schulz (1995) have added that individuals optimise development through balancing control which, if simplified, can be defined as the balancing of one's primary control directed towards the external world and secondary control focused on the self. Generally, studies have suggested that primary control tends to remain more stable from young adulthood to old age, whereas secondary control shows a tendency of increasing with age (for a review, see Heckhausen & Schulz, 1995).

Similar to the life-span theory of control by Heckhausen and Schulz (1995), Brandtstädter (2009) has discussed personal goal pursuit and adaptation more specifically as assimilative and accommodative processes that are the agents of "adaptive competence". These processes describe how a person adapts to the discrepancy between the factual circumstances (or real-self) and desired outcomes (or ideal-self). In brief, a person might strive to change the situation in order to reach the desired goal outcome (assimilation). In contrast, accommodation could be necessary by adapting personal goals to the prevailing situation and resources (Brandtstädter, 2009; Brandtstädter & Rothermund, 2002). Also, striving for resource gains, as opposed to prevention of resource loss, is particularly characteristic from childhood through to middle-age, which is reflected, for instance, in the preference for approach versus avoidance goals (Freund & Riediger, 2001).

Various life stages and transitions can also create specific resources that individuals have available. That is, personal goals provide a method for the analysis of life-span development (Freund & Riediger, 2006; Salmela-Aro & Little, 2007), since to an extent the contents of personal goals reflect age-related developmental tasks and role transitions as indicated by a number of personal

goal studies (e.g., Nurmi, 1992; Salmela-Aro, 1992; Salmela-Aro, 2009; Salmela-Aro et al., 2007). Typically, young adulthood is characterised by a number of transitions, including the completion of one's education, starting a full-time job, committing to an intimate relationship, and starting a family (e.g., Shanahan, 2000). Many transitions are reliant upon previous transitions, which is why some later transitions reflect the outcomes of earlier transitions (Roisman, Masten, Coatsworth, & Tellegen, 2004). For instance, completing university education and settling into working life has predicted a sharper decline in the number of education-related goals (Salmela-Aro et al., 2007). In addition, transitions are interwoven among the different life domains (e.g., finding a full-time job and starting a family). Overall, young adults' personal goals towards work, family, and health became more prominent after graduation, while tending to disengage from goals related to education, friends, and travelling (Salmela-Aro et al., 2007). Similarly, during the transition to parenthood, changes in personal goals were observed as parents were adjusting to the changes in their life context brought on by their new roles (Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2000). That is, young adults' responses to these demands and challenges of various developmental issues during their transition to adulthood are often reflected and observed in their personal goals.

Evidence from personal goal research has accumulated to indicate that the contents of personal goals have an independent effect on prospective well-being even after controlling for motives (i.e., why people pursue goals) of goals (Sheldon et al., 2004). Studies have revealed that, on the one hand, the personal goals corresponding to the opportunities and demands of particular life transitions and developmental tasks show positive well-being effects and adaptive outcomes (Salmela-Aro & Nurmi, 1997b; Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2001; Shulman & Nurmi, 2010). On the other hand, particularly extrinsic personal goals directed towards wealth, fame, and image have a negative relationship with well-being. Furthermore, focusing on many intrapersonal goals (i.e., self-related goals directed towards developing oneself and one's personality, health, or life; e.g., Little & Gee, 2007; Salmela-Aro, Pennanen, & Nurmi, 2001) have typically been associated with lower well-being, such as a higher incidence of symptoms of depression among employees (Salmela-Aro & Nurmi, 2004) and university students (Salmela-Aro & Nurmi, 1997b). Intrapersonal goals can signal self-concerns, ruminating, and attachment to the past (e.g., Salmela-Aro, 1992; Salmela-Aro et al., 2001). This may, however, be dependent on the appraisal of the intrapersonal goal; whether the goal is appraised positively as development or negatively as stress (Salmela-Aro & Nurmi, 1997a).

These processes, defined in the context of life-span theories, can also have an impact on the construction of goals related to work and career. Personal goal processes, such as assimilation and accommodation, could be key factors in adapting to the changing challenges of work environments. Hence, personal work goals could be viewed as reflecting career adaptability, which highlights the importance of adaptive processes required in career development (Savickas,

1997). In the occupational domain, a developmental perspective on career choice and development is provided by Super's (1957, 1980) life-span, life-space theory (see also Osipow, 1990; Savickas, 2000; Super, 1990). During an individual's career, developmental tasks can relate to different vocational development stages which were initially outlined as "maxicycles" (Super, 1957): Exploration (at 15–24 years), establishment (at 25–44 years), maintenance (at 45–64 years), and decline or disengagement (at 65 years and older). These stages also included three substages each. Moreover, different developmental tasks influence these maxicycles throughout an individual's life span, but various situational and personal determinants at different career decision points may also result in individual minicycles of some of the stages (Super, 1980). Accordingly, in subsequent literature, these stages have often been represented as career concerns or attitudes emerging in different cycles, and re-cycles, during an individual's career (e.g., Smart, 1998). For example, concerns related to exploration and re-establishment may be characteristic when changing jobs or career direction.

In my research, I focused on participants (36 years of age or younger) who were still likely to be at the beginning of their managerial career in the study baseline in 2006. According to Super (1969, 1985, 1990), career establishment typically takes place in early adulthood (broadly at 25–40 years of age), incorporating substages of stabilisation, consolidation and advancement. Stabilisation refers to a stage at which an employee is planning to stay in his/her job for a while and evaluates whether or not he/she has the necessary skills to perform the work. In the consolidating stage, an employee begins to feel more comfortable in that work, which can help in moving towards the advancing stage, when the employee is aiming to perform well and to get promoted. The main development tasks related to these periods are suggested to involve six tasks: Adapting to the culture of the organisation, adequate performance of position-related duties, establishing good work habits and a positive attitude towards the job, maintaining good co-worker relations, and considering career choice and setting goals (see Crites, 1982; Dix & Savickas, 1995). The developmental tasks and vocational stages should be considered in relation to career adaptability, which refers not only to dealing with these developmental tasks but also to adjusting to changeable and unpredictable working environments (Savickas, 1997). Thus, in this career development theory, individuals' adaptability in negotiating their intrinsic needs in relation to the changes in society is fundamental (Nevill, 1997). This type of career adaptability seems to be highlighted in current metaphors relating to working life, speaking of "protean" or boundaryless" careers which implies increasing individual agency and proactivity as opposed to being tied to, or reliant on, organisational structures (see e.g., Briscoe & Hall, 2006).

1.3 Personal goals in research on work stress and occupational well-being

1.3.1 Psychosocial stressors in the work environment

Since 1970s, occupational stress research has accumulated evidence regarding the role of the psychosocial stressors in the work environment in relation to the health and occupational well-being of employees (for reviews, see Cooper et al., 2001; Kahn & Byosiere, 1992; Kalimo, El-Batawi, & Cooper, 1987; Stansfeld & Candy, 2006). Psychosocial stressors in the work environment refer mainly to the nonmaterial aspects of the work environment that include relationships, organisational functioning, and the quantity and quality of job demands (Elo, 2007). Considerable generic changes in work environments have also taken place in the developed Western world (Kompier, 2006). For instance, with new technology, work and nonwork life domains have blended. There is also a wider diversity of labour participation by women and a greater mix of different ethnic backgrounds. In addition, the labour market demands increasing performance and flexibility from workers. In modern work environments, work demands and challenges are more psychological than physical by nature (Kompier, 2006), and this is the case especially for managers (Kinnunen, Feldt, & Mäkikangas, 2008; Tarvainen, Kinnunen, Feldt, Mauno, & Mäkikangas, 2005).

In terms of the Finnish work context, job insecurity could have had an impact at the beginning of the careers of the participants in this research. The older participants in the sample (i.e., 36 years in 2006) may have graduated at a time when the Finnish economy was still recovering from the most severe recession of its history in the 1990s, with an unemployment rate of 17.3% during the years between 1994 and 1996 (Honkapohja & Koskela, 2001). Although the economy stabilised slowly by the beginning of the 21st century, some signs of overheating in the financial sector might have been again present in the study baseline in 2006 (Mauno, Feldt, Tolvanen, Hyvönen, & Kinnunen, in press; Mäkikangas, Hyvönen, Leskinen, Kinnunen, & Feldt, in press). It should be noted, however, that in general the occupational well-being of Finnish managers has shown itself to be at a good or excellent level when measured with various well-being indicators (e.g., work ability and job-related affective well-being) over a ten-year follow-up period (Feldt, Hyvönen, Mäkikangas, Kinnunen, & Kokko, 2009; Mäkikangas et al., in press).

Several work stress models have been tested to depict the main factors in psychosocial work environments considered as presenting a risk for the health of employees in their workplace. In particular, three work stress models have drawn research attention and provided tested theoretical models for investigating comparable effects of the psychosocial stressors in the work environment on employees' health and well-being: First, the Job Demand–Control model (J–DC; Karasek, 1979), and later the extended version, the Job Demand–Control–Support model (J–DCS; Johnson & Hall, 1988; Karasek &

Theorell, 1990); second, the Job Demand–Resources model (JD–R; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; see also Hakanen & Roodt, 2010), which also has its origins in the J–DC model; and third, the Effort–Reward Imbalance model (ERI; Siegrist, Siegrist, & Weber, 1986; Siegrist, 1996). The J–DCS model aims to capture the features of the work environment by considering work demands (e.g., time pressure, workload), control or decision latitude (e.g., control over decisions and skill acquisition), and work-related social support from colleagues and the supervisor. The ERI model, in addition to addressing the features of the workplace as in the J–DCS and JD–R models, also takes into consideration a personal characteristic, namely overcommitment (e.g., Siegrist et al., 1986; Siegrist, 1996; Siegrist et al., 2004). Moreover, the ERI model has accounted for a higher variance in mental strain and job stress than the J–DCS model in several studies (Calnan, Wainwright, & Almond, 2000; de Jonge, Bosma, Peter, & Siegrist, 2000; Rydstedt, Devereux, & Sverke, 2007). The ERI model was utilised in this research to describe the main psychosocial stressors of the work environment, because unlike the J–DCS and JD–R models, the employees' personal feature of overcommitment could be incorporated in the investigation.

The ERI model owes its origin to medical sociology and is based on a social exchange theory according to which the costs and gains of social exchanges direct our behaviour with others (Siegrist et al., 1986; Siegrist, 1996; Siegrist et al., 2004). In the workplace, this means that employees invest effort into their work and, in return, expect rewards. Effort represents the employee's perception of the strain caused by various job demands and responsibilities imposed by the employer (e.g., interruptions, overtime, and obligations). Rewards, on the other hand, include the employee's perceptions of the opportunities that the job offers, including salary, performance-related esteem, job security, and career opportunities. Therefore, this model incorporates distal labour market conditions in addition to the immediate job conditions.

The model also conceptualises effort–reward imbalance to describe a work environment where there is a lack of reciprocity. Effort–reward imbalance refers to the perceived mismatch of spent efforts and received rewards in the workplace (e.g., Peter & Siegrist, 1997; Siegrist, 1996; Siegrist et al., 2004). A situation wherein an employee is investing overtime hours into completing projects with tight deadlines, but without receiving adequate financial compensation in return, would be an example of a harmful effort–reward imbalance. A harmful imbalance can also be present when employment opportunities are scarce, for instance due to a lack of skills or poor local economy, or when an employee has insufficient mobility to move with work. Employees might also have strategic reasons for staying in a job with a lack of reciprocity, for instance for personal aspirations such as career progression.

An extended period of harmful imbalance can, however, cause strong negative arousal and strain reactions that may contribute to various physical and psychological illnesses in the long term (for reviews, see Stansfeld & Candy, 2006; Tsutsumi & Kawakami, 2004; van Vegchel et al., 2005). Effort–reward

imbalance has been associated with, for instance, increasing risks of cardiovascular mortality (e.g., Kivimäki et al., 2002), poorer general mental health (e.g., Stansfeld, Bosma, Hemingway, & Marmot, 1998), and higher psychological distress (Shimazu & de Jonge, 2009). Further evidence for the impact of effort–reward imbalance comes from a recent study among employees aged 35–44 years, in which higher effort–reward imbalance related to a lower heart rate variability, which is connected to an increased risk of coronary heart disease (Loerbroks et al., 2010). In line with the theoretical assumptions of the ERI model, a number of studies have also found that higher effort and lower reward contributed to negative health and occupational well-being outcomes (for reviews, see Tsutsumi & Kawakami, 2004; van Vegchel et al., 2005); for instance, to higher stress reactivity (Limm et al., 2010) and mental strain (Rydstedt et al., 2007).

Although an employee would typically aim towards a balance between effort and reward, an employee's overcommitment (OVC) can be seen as a risk factor for the harmful imbalance of effort and reward (Siegrist, 1996). That is, OVC is seen as an intrinsic (personal) feature, whereas effort and reward are extrinsic (contextual) features (e.g., Siegrist, 1999). OVC describes a motivational pattern that includes strong ambition and commitment towards work in addition to the need to control and gain esteem from others, that is, essentially the ''inability to withdraw from work'' (e.g., Siegrist et al., 2004; Siegrist, Wege, Puehlhofer, & Wahrendorf, 2009). OVC has been shown to be a reasonably stable personal feature (de Jonge, van der Linden, Schaufeli, Peter, & Siegrist, 2008), and high neuroticism has been associated with higher OVC (Vearing & Mak, 2007).

The moderation effect of OVC suggests that in a situation with high effort–reward imbalance, higher OVC will be associated with higher health and well-being risks. Although this interaction effect has received scarce evidence, the independent effect of OVC on health and well-being has gained more research support (for a review, see van Vegchel et al., 2005). In addition, in recent studies, high OVC has been linked, for example, to future onset of insomnia over a two-year follow-up period (Ota et al., 2009), poorer self-rated health in a large scale cross-sectional study of six European countries (Salavecz et al., 2010), and higher work-related stress (Rennesund & Saksvik, 2010). In terms of background factors, having a higher educational level has been related to higher scores of OVC (Siegrist et al., 2004), and managers and professionals have reported investing a greater amount of effort and higher OVC than manual workers (Rydstedt et al., 2007). Therefore, the investigation of OVC is also clearly applicable to managers.

1.3.2 Burnout and work engagement as indicators of occupational well-being

Recent research evidence has already connected the ERI components with indicators of work-related well-being, such as burnout and work engagement used in the present research (e.g., Kinnunen et al., 2008; Salmela-Aro, Rantanen,

Hyvönen, Tilleman, & Feldt, in press). The psychological syndrome of burnout is typically described as exhaustion, cynicism, and reduced professional efficacy caused by prolonged job stress (Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 2008). The core component of the syndrome, exhaustion, refers to the depletion of emotional and physical resources in doing one's work. Cynicism describes a negative or distant attitude towards one's work in general, and it can be characterised as dysfunctional coping through which employees detach themselves from their work. Reduced professional efficacy represents feelings of incompetence and ineffectiveness in regard to both the social and nonsocial aspects of occupational achievements.

Work engagement, in turn, aims to capture employees' positive work-related states of vigour, dedication, and absorption at work (e.g., Bakker & Demerouti, 2008; Leiter & Bakker, 2010; Schaufeli & Bakker, 2004; Schaufeli & Bakker, 2010; Schaufeli, Salanova, González-Romá, & Bakker, 2002). Vigour describes high energy and mental resilience towards work. Dedication refers to the employee's feelings of pride, meaningfulness, and enthusiasm regarding the work. The absorption component describes being fully concentrated and immersed in one's work as well as losing the sense of time while working. Work engagement is not assumed to be a mere fleeting experience of fulfilment, but rather a more consistent state of mind that is not dependent on a single object, event, individual, or behaviour (e.g., Schaufeli & Bakker, 2004).

Research has established a negative relationship (correlations typically range from -.30 to -.65) between burnout and work engagement (e.g., Schaufeli & Bakker, 2004; Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002; Schaufeli, Taris, & van Rhenen, 2008; for a meta-analysis, see Halbesleben, 2010). Higher burnout has been associated with decreased life satisfaction among teachers (e.g., Burke & Greenglass, 1995), and with higher depression in large Finnish studies with dentists (e.g., Ahola & Hakanen, 2007; Hakanen, Schaufeli, & Ahola, 2008). In contrast, work engagement has been shown to have a positive relationship with self-rated health and work ability among Finnish teachers (Hakanen, Bakker, & Schaufeli, 2006). There is also evidence from a longitudinal study regarding the motivational process of job resources (e.g., autonomy, social support, and opportunities for professional development) predicting higher levels of work engagement (Bakker, Schaufeli, Leiter, & Taris, 2008; Hakanen et al., 2008; for a review, see Mauno, Kinnunen, Mäkikangas, & Feldt, 2010). Moreover, associations of job and personal resources with work engagement are reciprocal: For instance, work engagement also predicted higher job and personal (e.g., self-efficacy and optimism) resources across time (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). As opposed to job resources, job demands (e.g., high workload, poor working environment) can instigate health impairment processes resulting in higher levels of burnout (Hakanen et al., 2008; for a review, see Halbesleben & Buckley, 2004).

More specifically, job characteristics such as perceived job insecurity and fixed-term employment have been associated with work engagement and burnout. For instance, when job insecurity was experienced by permanent staff,

they reported lower job satisfaction and work engagement as well as higher exhaustion than their counterparts employed on a fixed-term basis (Mauno, Kinnunen, Mäkikangas, & Nätti, 2005). In addition to the associations with job security, one's gender (i.e., being female), higher managerial level, and working in private (vs. public) sector organisations have shown to be related to higher work engagement in large Finnish samples (Kinnunen et al., 2008; Mauno et al., 2005). In this research, these background factors of gender, managerial level, employment sector, employment contract, and career instability (i.e., unemployment and lay-offs) were also taken into consideration due to their association with burnout and work engagement.

Previous studies have supported the occupational well-being effects of the psychosocial work environment measured by effort and reward, for instance, in relation to burnout, and particularly to emotional exhaustion (e.g., Bakker, Killmer, Siegrist, & Schaufeli, 2000; Dai, Collins, Yu, & Fu, 2008; de Jonge et al., 2000; Salmela-Aro et al., in press; Willis, O'Connor, & Smith, 2008) as well as to job satisfaction (Calnan et al., 2000; de Jonge et al., 2000; van Vegchel, de Jonge, Meijer, & Hamers, 2001; for a review, see van Vegchel et al., 2005). Similarly, higher OVC has been associated with higher burnout (Dai et al., 2008; Salmela-Aro et al., in press; Willis et al., 2008) and with lower job satisfaction (Calnan et al., 2000). Among Finnish managers, higher effort–reward imbalance related to stronger turnover intentions and lower vigour and dedication, which are the core constructs of work engagement, and higher OVC associated with higher absorption (Kinnunen et al., 2008). Evidence for the mediating role of the satisfaction of basic psychological needs (feelings of autonomy, belongingness, and competence) – motivational constructs related to personal goals – have also emerged in a study by van den Broeck, Vansteenkiste, De Witte, and Lens (2008). In their study, the association between job resources and exhaustion was fully explained by the satisfaction of basic psychological needs, which also partly explained the association between job demands and exhaustion as well as job resources and vigour. That is, favourable characteristics of the work environment can relate to experiencing that the basic needs are met in the workplace and this, in turn, can promote higher occupational well-being.

1.3.3   Research on personal goals in the work domain

Research on the contents of work-related goals has received little attention in occupational literature (Harris et al., 2003; Pomaki & Maes, 2002; Pomaki et al., 2004; Salmela-Aro & Nurmi, 2004). Therefore, the contents of personal work goals have been lifted in the prime position in the present research. That is, this research investigated personal work goals by means of participants' self-articulated responses to an open-ended question regarding their most important work- or career-related goal.

I considered this approach to be different from a vast, distinctive research base relating to goal-setting and motivational orientation in achievement and performance contexts in motivational psychology. First, the research on goal setting commenced in the 1960s and since then there has been an impressive

body of research clarifying the roles of, for example, personality, goal characteristics, and group goals in goal setting (see e.g., Latham & Locke, 2007; Locke & Latham, 2002). However, this line of research targets goals that are selected when completing specific tasks (ter Doest, Maes, Gebhardt, & Koelewijn, 2006). The second notable line of research focuses on goal orientation, and the majority of researchers in this field consider this type of orientation as being a motivational construct representing a person's underlying reason for task engagement, or as a trait (or quasi-trait) or disposition (DeShon & Gillespie, 2005). In a review by DeShon and Gillespie (2005), 88 studies focusing on goal orientation were discussed with reference to their conceptual clarity and measures of goal orientation. What appears to unify the research on goal orientation is that it focuses on higher order motivational constructs ranging from one to three dimensions. Higher level goals can be seen as giving fundamental purpose in life for most people (DeShon & Gillespie, 2005).

With the construct of personal work goals in this study, I aimed to analyse personal action intentions defined within the framework of Little's (e.g., 2000, 2007) social ecological model of well-being; that is, the assumption is that personal work goals incorporate both the employee and the context (Grant et al., 2007). Therefore, I considered that personal work goals offer a method for analysing the balancing of individuals' intentions and hopes for the future within their work contexts that present various demands and opportunities, some of which could be related to a specific age or career stage. This is a very distinctive approach from looking at underlying motivational orientation or specific task goals. Therefore, in the review of research presented in Table 1, I included studies that have investigated the contents or appraisals of personal goals (both salient life and work goals) including either work-related or general well-being outcome measures. I excluded studies that focused exclusively on personal goals or projects and general well-being measures, as well as studies that were in a work context but the goals were either set in relation to specific tasks (e.g., sales goals, VandeWalle, Brown, Cron, & Slocum, 1999) or relied on ratings of dispositional goal orientation (e.g., Brett & VandeWalle, 1999).

Of the 19 personal goal studies with an occupational context reviewed (shown in Table 1), 14 studies involved self-articulated goals and three studies used preset scales derived from previous research or theory. In addition to this, one study did not request the respondents to specify their career goal when rating their certainty and strategies for achieving their goal (Noe, 1996), and one study gave the respondents case vignettes with hypothetical goal priorities that were used for the basis of rating several different outcome measures (Salmela-Aro & Wiese, 2006).

In spite of collecting participants' self-set personal goals, the majority of these studies have not considered the contents of personal goals (life or work goals) in association with occupational well-being, with the exception of four studies. These four studies, however, had fairly small sample sizes, ranging from 62 to 472 participants. One of the first studies on personal work goals was

by Roberson (1990), in which personal work goals were classified into categories of task vs. non-task and negative vs. positive personal work goals. The findings suggested that fewer negative personal work goals were found to relate to higher job satisfaction. In studies by Salmela-Aro and Nurmi (2004) and Salmela-Aro, Näätänen, and Nurmi (2004), the contents of personal goals were categorised and investigated in relation to various occupational well-being indicators (e.g., burnout and work ability). Findings indicated that, for example, employees who have a higher number of work-oriented personal goals tend to experience lower occupational well-being than employees who had more hobby-, health-, or family-oriented personal goals (Salmela-Aro & Nurmi, 2004). And finally, in a study by Judge, Bono, Erez, and Locke (2005) employees with more positive core self-evaluations (higher self-esteem and generalised self-efficacy, internal locus of control and lower neuroticism) tended to also have more positive, self-concordant personal work goals; that is, they pursued goals that were more intrinsic and with which they identified more. Self-concordant work goals also related to higher goal attainment and mediated the relationship between core self-evaluations and job satisfaction.

Of the studies using participants' ratings on preset scales of personal goals, ter Doest et al. (2006) also considered various goal focuses (i.e., personal growth, physical well-being, social relationship, and self-confidence goals) and found that workplace facilitation of personal goals contributed to positive occupational well-being outcomes. Overall, it seems that having a more balanced goal system (i.e., fewer work-related personal goals) with fewer negatively phrased and more self-concordant personal work goals may be linked with positive occupational outcomes. Therefore, it would be reasonable to assume that a more in-depth analysis of the contents of personal work goals in this research can give a new perspective concerning individual differences in occupational well-being.

It is important to note that a wider range of personal work goal contents have been examined in only two studies and these had small sample sizes (i.e., 75–131 participants), and moreover, neither of these studies considered the role of goal contents in occupational well-being. Firstly, Wiese and Salmela-Aro (2008) categorised the contents of personal work goals, but these categories were not analysed in relation to the outcome measures used. In their study of 131 employees from a range of professional fields and employment positions, nine content categories of personal work goals were identified, namely success/higher position, further education/training/learning, doing a good and efficient job, job security, job satisfaction and positive job attitudes, social relationships at work, finances, openness to job-related changes, and other. Furthermore, 75 top corporate leaders' work goals were investigated by Bateman et al. (2002). These leaders produced multiple goals, which were categorised into ten goal content categories: Personal, financial, customer, market, operations, product, organisational, people, competitive, and strategy-making goals. Of these categories, the personal goals were the largest category (18% of all goals) and referred to the goals that the leaders had outside their

business environment (e.g., career aspirations, wealth, and family). This implies that personal work goals can also incorporate hopes and wishes peripheral to work, since boundaries between work and home are becoming increasingly blurred as suggested by Jones, Burke, and Westman (2006). In addition, contrasting the work goals of the participants in these two aforementioned studies, the managerial and leadership aspects of leaders' work goals stood out as reflecting their specific job responsibilities and work environments.

As can be seen in Table 1 with respect to goal appraisals, one or more dimensions of personal goal appraisals were included in all but two goal studies. The most typical appraisal scales used focused on several different cognition dimensions (e.g., goal-related commitment, attainability, progress, importance, and conflict) and goal-related emotions (e.g., positive and negative emotions regarding goal achievement). Of the 17 studies investigating goal appraisals, 14 found that goal appraisals contributed towards outcome measures used, which covered job attitudes, work-related well-being, and health indicators, as well as general health and satisfaction indicators. Three of these studies also provided clear evidence that the independent effect of goal appraisals on work-related and well-being outcomes persisted after controlling for factors such as demands, control, and support in the workplace (Maier & Brunstein, 2001; Pomaki et al., 2004; ter Doest et al., 2006).

Mixed results across studies were also evident: For instance, in relation to goal progress, two studies (Duffy & Lent, 2009; Wiese & Freund, 2005) found no direct relationship between goal progress and well-being or job attitude measures used. However, the role of goal progress can be observed in various other studies. It has been shown, for example, that progressing towards one's salient work goals can be particularly beneficial in regard to work-related outcomes for employees who initially had low expectations for goal attainability and self-efficacy (Pomaki, Karoly, & Maes, 2009) as well as for trainee teachers low in conscientiousness (Hülsheger & Maier, 2010).

Further evidence has emerged highlighting the inter-individual variation observed in goal appraisals and its impact on affective well-being. Nurmi, Salmela-Aro, Keskivaara, and Näätänen (2008) found that, for instance, the relationship between goal progress and exhaustion varied to a notable extent among individuals in an interventions study conducted over a period of ten months. For some employees, goal progress could be linked with high exhaustion from effort invested in the workplace, whereas for others their good progress towards goals could reflect goal achievement and thereby reducing exhaustion. This detected inter-individual variation could also relate to the differences in the content of personal goals that participants have. In a study by Nurmi et al. (2009), personal goals were indeed shown to be multilevel constructs, since the contents of personal goals were predictors of goal appraisals. Therefore, firstly, personal goal domains can differ in terms of goal appraisals (Cantor et al., 1987; Nurmi et al., 2009; Sheldon & Elliot, 2000), and secondly, it may depend on the goal content whether the progress and attainment of the goal has positive affective or work-related outcomes (Nurmi

et al., 2008). Accordingly, in this research, I have also taken into consideration that the appraisals of personal work goals might differ depending on the content of the goal. Goal appraisals evidently play an important role in occupational well-being, which is why I also took goal appraisals into consideration when investigating the relationship between the contents of personal work goals and occupational well-being.

Various studies have shown that goal appraisals can have mediating or moderating roles, firstly, between personal features and work-related outcomes (Hülsheger & Maier, 2010), and secondly, between different goal appraisals and outcomes related to well-being and job attitudes (e.g., Harris et al., 2003; Maier & Brunstein, 2001; Pomaki et al., 2004; ter Doest et al., 2006). For example, the attainment of goals that were considered as important accounted for independent variance in pleasurable affect after work (Harris et al., 2003). In a similar vein, the contents of personal work goals could play a role in mediating or moderating, for instance, between personal or environmental features and occupational well-being. In addition to the research on goal appraisals, guidance can also be drawn from previous research on the role of personality in the stress process, providing some indication of the direction of the investigated associations. According to the reactivity model (Bolger & Zuckerman, 1995), personality can moderate the relationship between stressors in the environment and outcomes since personality affects how stressful events are reacted to. For instance, core self-evaluations and emotional stability have been found to impact the extent to which daily stressors increase or reduce the strain experienced (Kammeyer-Mueller, Judge, & Scott, 2009). Similarly, some personal work goals – representing the personality factor in the stress process – could either increase or buffer against the effects of psychosocial stressors in the work environment. These questions are underinvestigated issues, and therefore, I have chosen to give them further attention in this research.

TABLE 1 A review of personal goal research conducted in the occupational domain, listed in order of the publication year

Study	Participants & Study design	Measures				Main analyses	Main results regarding personal (work) goals
		Goal content	Goal appraisals	Other personal/ environmental features	Outcome		
Roberson (1989)	172 employees in a questionnaire and field study	Self-set perso-nal work goals; con-tent classific-ation from a preset list	5 scales for goal expectancy value, 4 scales for schedule characteristics, role, goal-activity matching	–	Goal-directed behaviour	Multiple regression analyses	Goal and schedule characteristics predicted the frequency of goal directed behaviour.
Roberson (1990)	A convenience sample of 150 employees in a cross-sectional study	Self-set personal work goals	9 scales of goal appraisals	–	Job satisfaction	Goals categor-ised: task vs. non-task and negative vs. positive goals; multiple regression analyses	Probability of goal success, fewer negative personal work goals, and lack of deadlines related to higher job satisfaction.
Karoly & Ruehlman (1996)	227 employees in telephone interviews	Personal work goals selected from a list of 13 goals (also other goals could be mentioned)	Goal cognition, conflict	Pain chronicity	Depression, anxiety	Hierarchical regression analyses	Pain in a nonclinical sample of adults was associated with negative goal appraisals; goal cognitions accounted for independent variance in depression and anxiety after controlling for pain experience.
Noe (1996)	72 employees and 40 managers in a 6-month longitudinal questionnaire study with 2 measurements	–	Career goal focus and distance from career goal	Career exploration, career strategies, manager's support for development	Willingness to par-ticipate in develop-ment activities; rated job perfor-mance and develop-ment behaviour.	Hierarchical regression analyses	Distance from career goal related to development behaviour; that is, the employees closer to their career goals engage less in development behaviours.

TABLE 1 (continued)

Study	Participants & Study design	Measures			Outcome	Main analyses	Main results regarding personal (work) goals
		Goal content	Goal appraisals	Other personal/ environmental features			
Maier & Brunstein (2001)	81 recently hired employees in an 8-month longitudinal study with 3 measurements	4 self-set personal work goals for the next several months	Goal commitment, attainability, progress	Perceptions of control and support at work	Job satisfaction, organisational commitment	Hierarchical regression analyses	An increase in job satisfaction and organisational commitment among new employees who were committed to their goals and perceived these as attainable. These interactions were also mediated by goal progress.
Harris et al. (2003)	22 employees in a 12-day diary study	Ratings of a preset list of 5 personal work goals	Daily goal attainment and importance	–	Pleasurable and activated affect	Hierarchical linear modelling	Goal attainment was associated with pleasurable and activated affect after work. The attainment of personally important goals had an independent effect on pleasurable affect after work.
Kehr (2003)	99 managers in a 5-month longitudinal study with 3 measurements	6 self-set personal goals and 3 training transfer goals	Goal conflict (personal goals) and goal attainment (training transfer goal)	–	Positive and negative affect	Hierarchical regression analyses	Persistent goal conflict hindered the attainment of new goals. Goal attainment associated with positive and negative affect. Emerging goal conflict also associated with reducing positive affect.
Salmela-Aro & Nurmi (2004)	286 employees and 186 IT workers in 2 cross-sectional questionnaire studies	4 self-set personal goals	–	–	Work Ability Index, burnout, depressive symptoms, life satisfaction	Goal content analysis, clustering-by-cases and ANOVA	Having many work-related personal goals was associated with higher burnout and lower work ability.

TABLE 1 (continued)

Study	Participants & Study design	Measures				Main analyses	Main results regarding personal (work) goals
		Goal content	Goal appraisals	Other personal/ environmental features	Outcome		
Salmela-Aro et al. (2004)	62 employees (and 28 in the control group) with burnout participated in a 16-session intervention study	4 self-set personal goals	23 appraisal dimensions relating to goal characteristics, action tendencies, and goal-related emotions	–	Burnout	Goal content analysis, repeated measure ANOVA	The decrease in negative emotions related to personal goals was associated with decreasing burnout. The number of work-related personal goals and various negative appraisals decreased during intervention.
Pomaki et al. (2004)	3 088 health care employees in a cross-sectional questionnaire study	Self-set, most important personal work goal for the next 12 months	Work goal appraisals: Conflict, efficacy, support beliefs, goal-related negative and positive emotions	Job demands, job control, social support from supervisor and colleagues	Job satisfaction, burnout, depression and somatic symptoms	Hierarchical regression analyses	Work goal appraisals associated with well-being indicators after controlling for work environment factors.
Judge et al. (2005)	251 employees in a 60-day longitudinal survey study with 2 measurements	Self-set work goals for the next 60 days, self-rated on motives for pursuing the goal	Goal attainment	Core self-evaluations	Job satisfaction	SEM analyses	Goal attainment was not linked with job satisfaction. More positive core self-evaluations associated with more positive, self-concordant goals. Self-concordant goals also related to higher goal attainment and mediated the relationship between core self-evaluations and job satisfaction.

TABLE 1 (continued)

Study	Participants & Study design	Measures Goal content	Goal appraisals	Other personal/ environmental features	Outcome	Main analyses	Main results regarding personal (work) goals
Wiese & Freund (2005)	82 employees in a 3-year longitudinal study with 2 measurements	5 self-set personal goals related to work and 5 to private life	Work goal related difficulty and positive fantasies; goal progress in the work and private domain	Work involvement	Positive and negative affect, job satisfaction, subjective developmental success	Moderated multiple regression analyses	Goal progress did not predict an increase in well-being or job satisfaction. Perceiving goals as difficult to achieve and making progress towards goals associated with positive changes in outcome measures.
Salmela-Aro & Wiese (2006)	608 participants appraised case vignettes on the basis of the contents of personal goals in 3 separate studies	Priority conditions for personal goals (e.g., work, family, balanced goals)	–	–	Various work and family attributes in addition to life satisfaction	ANOVAs	Work priority in personal goals was perceived as being associated with higher ratings on positive work attributes. Greater life satisfaction was associated with a balanced goal system.
ter Doest et al. (2006)	1 036 employees in a cross-sectional survey study	Preset list of higher order personal goals	Goal facilitation and importance	Job demands, control, social support in the workplace	Job satisfaction, personal accomplishment, emotional exhaustion, psychological and somatic symptoms	Hierarchical regression analyses	Goal facilitation through work accounted for independent variance in outcome measures after controlling for work environment factors.
Nurmi et al. (2008)	36 employees with burnout in a 10-month group intervention study with weekly as well as pre- and post-intervention measurements	Self-set, the most important personal work goal for 1 year	Goal confidence (goal progress and capability)	Self-esteem	Depression, psychological well-being, burnout, work stress, work exhaustion	Dynamic factor analyses and regression analyses	Higher self-esteem predicted higher fluctuations in goal appraisals. Fluctuations in goal appraisals predicted increased psychological well-being. The lagged relationships between goal appraisals and well-being differed across individuals.

TABLE 1 (continued)

Study	Participants & Study design	Measures				Main analyses	Main results regarding personal (work) goals
		Goal content	Goal appraisals	Other personal/ environmental features	Outcome		
Wiese & Salmela-Aro (2008)	131 employees in a cross-sectional questionnaire study	Self-set, 2 personal goals related to work and 2 to family	Work-to-family goal facilitation and hindrance, family-to-work goal facilitation and hindrance	–	Job satisfaction, work engagement, partnership satisfaction, partnership engagement	Goal content analyses, multiple regression analyses	Goal facilitation had higher associations with outcome measures than goal conflict. The balance between family-to-work goal facilitation and conflict played a more significant role in the outcome measures.
Duffy & Lent (2009)	366 teachers in a cross-sectional survey study	Self-set, the most important personal work goal	Goal progress, goal support	Positive affect, work-related self-efficacy, perceived person-environment fit and organisational support	Job satisfaction	Confirmatory factor analyses	Goal appraisals (progress and support) were not related to job satisfaction. Work conditions fully mediated the relationship between goal support and job satisfaction.
Pomaki et al. (2009)	172 nurses in a 1-year longitudinal questionnaire study with 2 measurements	Self-set, the most important personal work goal for 12 months	Goal attainability, self-efficacy, and progress	–	Job satisfaction, emotional exhaustion	Hierarchical regression analyses	Participants with initially low goal cognitions (attainability, self-efficacy), but showing better goal progress reported an increase in well-being outcomes.
Hülsheger & Maier (2010)	121 trainee teachers in a questionnaire study with 3 measurements at 2-month intervals	3 self-set personal work goals for the next 6 months	Goal progress	Conscientiousness, extraversion, neuroticism	Job satisfaction, affective organisational commitment	Hierarchical regression analyses	Goal progress predicted an increase in job satisfaction and affective organisational commitment for participants low in conscientiousness, but not for those high in conscientiousness.

1.4   Aims of the present research

In this thesis, I combined two research traditions in psychology – personal goal pursuit and work stress – in order to shed new light on the relationships between personal goal pursuit at work, psychosocial stressors in the work environment and occupational well-being. In the three studies included in this thesis, I utilised a mixed method research design (e.g., Creswell & Plano Clark, 2007) in two cross-sectional investigations (Studies I & II) and one longitudinal investigation (Study III) of participants' most important personal work goals. The research focused on participants who at the study baseline were in a management position and 36 years of age or younger. Therefore, according to Super's (e.g., 1990) vocational development theory, these participants could still be in the process of establishing their career in management.

With this investigation of personal work goals and changes in goals, I aimed to apply findings of existing theories relating to personal goals (e.g., Brandtstädter, 2009; Little, 2007; Salmela-Aro, 2009) to the occupational domain. The theoretical model (see Figure 1) of the thesis is an adaptation of Little's (e.g., 2000, 2007) social ecological model of well-being to the work context, which, in turn, is described by the ERI model (Siegrist, 1996). Figure 1 depicts the associations addressed in the three studies (investigated constructs in parentheses), in all of which the thematic categorisation of the contents of personal work goals held the centre position.
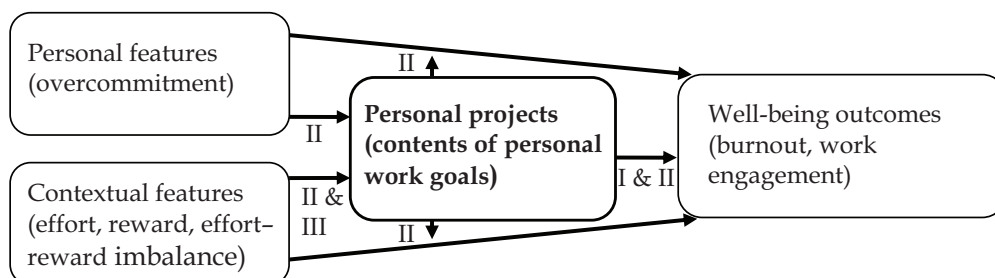
FIGURE 1   The theoretical model of the research showing the investigated constructs in parentheses and their relationships

Note: I = investigated associations in Study I; II = investigated associations in Study II; III = investigated associations over the two-year follow-up period in Study III.

Study I was a cross-sectional study investigating the contents of participants' self-articulated personal work goals in relation to the occupational well-being indicators of burnout and work engagement. The following three research questions highlight the main aims of Study I:

1.   What types of personal work goals do young managers have?

2. How are the contents of personal work goals associated with goal appraisals on the dimensions of importance, commitment, progress, effort, and strain?

3. How are the contents of personal work goals associated with burnout and work engagement after controlling for goal appraisals and significant background factors?

In light of previous theory and research on personal goals (e.g., Nurmi, 1992; Salmela-Aro, 2009; Salmela-Aro et al., 2007) and vocational development (Super, 1969, 1985, 1990), I expected that young managers produce goals that reflect the vocational development stage relevant to their age group (i.e., 23–36 years of age). This age refers to the stage of career establishment, incorporating the development tasks related to career stabilisation, consolidation, and advancement. Furthermore, a proportion of participants in various different populations have shown a particularly strong focus on intrapersonal goals (e.g., Little & Gee, 2007; Salmela-Aro, 1992; Salmela-Aro et al., 2001). Intrapersonal goals, in this study, were expected to be associated with work-related self-concerns, such as managing work stress or finding work motivation. And finally, young managers are also in a central position in leading their team towards corporate goals. To an extent, managers at all levels are involved in the general leadership task of influencing the behaviour of others in order to reach organisational goals (Shackleton & Wale, 2000). Therefore, leadership tasks could include interpersonal aspects (e.g., leading the members of the team) as well as managerial and department-level goals (e.g., achieving sales targets). I also expected that personal work goals can reflect leadership and organisational tasks in line with a study by Bateman et al. (2002) with corporate leaders.

Previous studies have indicated that personal goals are multilevel constructs which can differ in goal appraisals depending on the goal content (Cantor et al., 1987; Nurmi et al., 2009; Sheldon & Elliot, 2000). For instance, participants reported higher goal-related stress for education, occupation, and self goals, as well as better progress, accomplishment, means and knowledge for educational goals (Nurmi et al., 2009). Additionally, appraisals of personal work goals have been found to contribute to work-related attitudes, such as organisational commitment (e.g., Maier & Brunstein, 2001), which might also have an effect on the type of goal an employee is focused on at work. Since no previous research exists that would have specifically looked at differences in appraisals of personal work goals, no specific expectation can be set. Nonetheless, all personal work goals may not be appraised in the same way and I expected that personal work goals differ when evaluated on typical goal-related cognitions and emotions such as goal importance, commitment, progress, effort and strain. These types of goal appraisals have also been shown to account for differences in occupational well-being in various studies (e.g., Maier & Brunstein, 2001; Pomaki et al., 2004; Pomaki et al., 2009), and thus, goal appraisals were controlled for when investigating the relationship between goal contents and occupational well-being.

On the basis of Little's (2000, 2007) social ecological model and previous studies conducted within this framework, I expected that the personal work goals that participants pursue are related to their occupational well-being. More specifically, personal goals that respond to the developmental and transitional challenges of a particular stage in life tend to be associated with positive affect outcomes, whereas a prevalence of self-focused goals relate to reduced well-being (e.g., Salmela-Aro, 2009; Salmela-Aro & Nurmi, 1997b; Salmela-Aro et al., 2000). That is, I expected that personal work goals that relate to vocational developmental tasks of career establishment associate with higher occupational well-being (lower burnout, higher work engagement) and, in turn, personal work goals reflecting self-concerns at work associate with lower occupational well-being (higher burnout, lower work engagement). Furthermore, work environments perceived as supportive of goal attainment have been associated with more positive job attitudes (Maier & Brunstein, 2001; Salmela-Aro, 2009; ter Doest et al., 2006) and better well-being (ter Doest et al., 2006), whereas enduring goal conflicts can hinder the attainment of new goals among managers (Kehr, 2003). It could be that more favourable conditions for goal attainment and less goal conflict in the workplace promote pursuing personal work goals that reflect the managerial leadership tasks (as opposed to, for example, self-concern goals). Therefore, in light of previous research, I expected that the personal work goals that reflect the managerial leadership tasks associate with higher occupational well-being (lower burnout, higher work engagement).

Study II built upon the findings of the first study by drawing attention to the role of personal work goals in the interaction between the psychosocial work environment and occupational well-being. This study incorporated the components of the ERI model (Siegrist et al., 1986; Siegrist, 1996; Siegrist et al., 2004) as a framework for studying the impact of environmental and personal features on pursuing personal work goals and occupational well-being measured with the indicators of burnout and work engagement. Three main aims in the form of research questions were addressed in Study II:

1. Do the ERI components (effort, reward, effort–reward imbalance, OVC) contribute to the contents of personal work goals?
2. Do the contents of personal work goals have an indirect (i.e., mediating) effect on the relationship between the ERI components (effort, reward, effort–reward imbalance, OVC) and occupational well-being (burnout, work engagement)?
3. Do personal work goal contents moderate the relationship between the ERI components (effort, reward, effort–reward imbalance, OVC) and occupational well-being (burnout, work engagement)?

As seen in Figure 1, in this study, the social ecological model of well-being (Little, 2000, 2007) was tested more extensively. In line with the theoretical model, the features of the psychosocial work environment could play a critical

role in the pursuit of personal work goals. Firstly, a favourable work environment with fewer psychosocial stressors (high reward, low effort, and effort–reward imbalance) could be linked to personal work goals related to career establishment and leadership tasks, based on findings from studies focusing on goal appraisals. For instance, a work environment that is facilitative and supportive of personal work goals has been connected to positive job attitudes (Maier & Brunstein, 2001; ter Doest et al., 2006). Secondly, on the basis of the theoretical model, I also expected that in a less favourable work environment with more psychosocial stressors (low reward, high effort, and effort–reward imbalance), personal work goals relate to well-being at work (e.g., managing work stress) and changing jobs. These goals might be set, for example, as a result of high demands that overload the employee or due to dissatisfaction with the rewards received in the employment. Thirdly, I also expected that well-being goals associate with overcommitment. This expectation was based on previous research indicating that insufficient recovery during leisure time has been linked to negative well-being outcomes (e.g., Sonnentag, 2003; Sonnentag, Binnewies, & Mojza, 2008; Sonnentag & Zijlstra, 2006). Well-being goals at work may suggest a difficulty in, or a lack of opportunity for, detaching from work responsibilities during off-work time and engaging in activities that promote recovery.

The contents of personal work goals could have an indirect effect on the relationship between the ERI components and occupational well-being, as suggested by the theoretical model of this research based on Little's (2000, 2007) social ecological model of well-being. This expectation is in line with a previous study where the basic psychological needs (feelings of autonomy, belongingness, and competence) had an indirect effect on the associations of job resources and demands with occupational well-being (van den Broeck et al., 2008). Furthermore, the contents of personal work goals could act as moderators between the ERI components and occupational well-being, following the notion of the reactivity model (e.g., Bolger & Zuckerman, 1995; Kammeyer-Mueller et al., 2009). For instance, it is possible that some goals (e.g., goals related to career establishment) buffer against the effect that high effort and low reward would otherwise have on well-being, whereas goals related to well-being could increase the effect of psychosocial stressors on occupational well-being. Similar findings have already emerged in relation to research on goal appraisals, where goal progress moderated the relationship between conscientiousness and job satisfaction (Hülsheger & Maier, 2010).

Study III extended the investigation of personal work goals over a two-year follow-up period. I utilised the ERI model (Siegrist, 1996) to investigate whether changes in reward, effort, and effort–reward imbalance relate to changes in the contents of personal work goals during the follow-up. Personal work goals could be sensitive to changes in the psychosocial stressors of the work environment in order for the participants to optimise their career adaptability in a similar way as seen with personal goals in relation to the demands and opportunities of a particular life context (e.g., Salmela-Aro, 2009;

Salmela-Aro et al., 2000; Salmela-Aro et al., 2007). To summarise, my research questions in Study III were:

1. To what extent have personal work goals changed during the two-year follow-up period (2006–2008)?
2. Is there an association between changes in the psychosocial work environment (effort, reward, effort–reward imbalance) and changes in the contents of personal work goals?

These research questions were largely based on previous findings from Studies I & II. First, I expected to find the same seven goal categories in the follow-up study in 2008 as were found in the previous study with the same participants in 2006 (Study I). However, in line with previous personal goal research (e.g., Nurmi, 1992; Salmela-Aro et al., 2000; Salmela-Aro et al., 2007), I also expected to see changes in personal work goals of the participants, reflecting the ongoing negotiation between the opportunities and demands in the participants' work environment and other life contexts. Since no previous longitudinal evidence exists regarding changes in the contents of personal work goals, I could not specify the direction of goal changes in the work domain.

Personal work goals could be viewed as reflecting career adaptability, which highlights the adaptive processes required in career development (Savickas, 1997). For instance, personal goal processes, such as assimilation and accommodation (e.g., Brandtstädter, 2009), could be fundamental for adapting to the changing challenges of work environments. In line with personal goal theories (e.g., Brandtstädter, 2009; Little, 2007) and findings from Study II, reducing resources in the work context could instigate goal changes, for instance towards job change goals, in order to improve adaptation and occupational well-being. I assumed that unfavourable changes in the psychosocial work environment (high effort, low reward, and high effort–reward imbalance) associate with engaging in job change or well-being goals. On the other hand, favourable psychosocial work environment has been linked to positive occupational well-being outcomes (e.g., Dai et al., 2008; Kinnunen et al., 2008), which also paralleled research on goal appraisals indicating that favourable conditions for goal attainment at work predicted positive job attitudes (Maier & Brunstein, 2001). Similarly, outcomes of longitudinal studies have indicated beneficial effects of goal attainment on affective well-being in the work context (e.g., Harris et al., 2003; Kehr, 2003). Thus, favourable changes in the psychosocial work environment (i.e., high reward and low effort–reward imbalance) could be related to engaging in goals focused on the performance of the organisation, reflecting the resources available for being directed towards managers' leadership task at hand. Career events, such as career disruptions, job changes, and promotions, could also relate to changes in personal work goals, since these experiences instigate changes in the person's work environment as well as in their personal life; accordingly, these career experiences were controlled for in the analyses.

2 METHOD

2.1 Participants and procedure

Studies I, II, and III comprised participants who were selected from the membership registers of two national labour unions: The Union of Salaried Employees and the Union of Professional Engineers. In Finland, a large majority of employees (71.2%) belong to a labour union organised on the basis of industry (Ahtiainen, 2001), and therefore, this sample can be considered as a relatively representative of the target group. Studies I and II utilised the data from the study baseline in 2006 ($N = 747$), whereas Study III comprised data from the study baseline in 2006 and the two-year follow-up in 2008 ($n = 423$).

In **Studies I** and **II**, the sample consisted of 747 young managers (age range 23–36 years) who responded to a questionnaire survey in the spring of 2006. The sample derived from the two labour unions included all the members whose professional title referred to a management position and who were 35 years or younger in January 2006. These criteria were met by 1904 union members (759 members of the Union of Salaried Employees and 1145 members of the Union of Professional Engineers). Of the 1904 questionnaires sent to the home addresses of the participants, 933 questionnaires were returned in total. Respondents ($n = 186$) who were not in a managerial position or in employment (e.g., maternity leave, studying, or unemployed over 3 months) were omitted from the final sample. That is, the final sample ($N = 747$) included all those respondents who were employed in a management position having subordinates and/or project management duties. The response rate was 43.4%. Further details about the background characteristics of this sample can be seen in Table 2.

In addition to the data collected in 2006, **Study III** also utilised the follow-up data collected two years later from the same participants in the spring of 2008. From the data collection in 2006, 126 participants had decided against further participation (i.e., they ticked a box where participants could indicate that they no longer wished to receive survey questionnaires). Therefore, the

follow-up questionnaires were sent to 621 participants. Of these questionnaires, 433 were returned, which yielded a response rate of 69.7%. Of the 433 respondents, 7 respondents were unemployed and 3 had not responded to the investigated study variables, and thus were omitted from the final sample of Study III ($n = 423$).

TABLE 2   Background characteristics of participants in 2006 (total $N = 747$) and 2008 (total $n = 423$)

Background characteristics	2006	2008
	% (observed n)	% (observed n)
Gender		
Male	85.5 (637)	83.9 (355)
Female	14.5 (108)	16.1 (68)
Age in years		
Mean (SD)	31.0 (3.2)	33.0 (3.2)
Range	23–36	26–38
Managerial level		
Upper	8.5 (62)	12.1 (42)
Middle	48.8 (357)	55.2 (191)
Lower	42.7 (312)	32.7 (113)
Subordinates		
Yes	97.6 (727)	81.9 (345)
No	2.4 (18)	18.1 (76)
Vocational education		
Engineering	67.4 (498)	69.5 (294)
Technician	6.1 (45)	5.2 (22)
Other	24.6 (182)	23.6 (100)
No education	1.9 (14)	1.7 (7)
Children		
No children	52 (388)	37.1 (157)
One or more child	48 (358)	62.9 (266)
Employment contract		
Permanent	93.3 (696)	96.2 (407)
Fixed-term	6.7 (50)	3.8 (16)
Employment sector		
Private	95.4 (709)	93.8 (396)
Public	4.6 (34)	6.2 (26)
Employment field		
Technology	27.8 (204)	28.6 (121)
Building industry	12.8 (94)	10.4 (44)
Forestry	8.8 (65)	8.3 (35)
Information technology	8.2 (60)	7.3 (31)
Chemical industry	6.8 (50)	6.4 (27)
Other (e.g., consultancy, food industry, customer service, logistics, sales)	35.6 (262)	39.0 (165)

In terms of career events before 2006, 31.3% (n = 233) of the respondents in 2006 had experienced periods of unemployment or lay-offs since graduation and 68.7% (n = 512) did not report such career disruptions. Between the measurements in 2006 and 2008, 7.0% (n = 28) of participants had experienced career disruptions (unemployment or lay-offs) and 28.9% (n = 118) of participants reported that they had changed jobs on their own initiation. In addition, 34.8% (n = 142) of participants had been promoted since 2006.

2.2 Attrition analyses

In 2006, the attrition analysis showed that the respondents (n = 933) did not differ from nonrespondents (n = 971) in terms of gender, χ^2 (1) = 0.70, ns. The data on the nonrespondents' age was only available for the members of the Union of Salaried Employees; these respondents (n = 331) did not differ from nonrespondents (n = 379) in age, $t(708)$ = 1.53, ns. In 2008, the respondents (n = 433) did not differ from the nonrespondents (n = 314) in terms of gender, $\chi^2(1)$ = 3.79, ns; managerial level, $\chi^2(2)$ = 0.62, ns; employment contract, $\chi^2(1)$ = 0.09, ns; or career disruptions before 2006, $\chi^2(1)$ = 0.76, ns. No significant differences emerged in regard to the study variables of effort, $t(744)$ = -0.24, ns; reward, $t(745)$ = 0.73, ns; or ERI-ratio, $t(744)$ = -0.53, ns. However, the χ^2-test indicated that participants with job security goals and those with no work goals were slightly underrepresented among the respondents who participated in 2008 and overrepresented among the respondents who had only participated in 2006, $\chi^2(7)$ = 17.2, p < .05.

2.3 Measures

2.3.1 Personal work goals

The personal goal variables used in this research included an open-ended question regarding the participants' most important personal work goal in 2006 (Studies I, II, and III) and 2008 (Study III). In Study I, the appraisals of personal work goals were also investigated.

Personal work goals were enquired about with an open-ended question: "Write down your most important personal goal that relates to your work or career". In 2006, three independent coders thematically categorised the participants' responses using a generic and data-driven qualitative analysis that did not rely on preset categories (e.g., Creswell & Plano Clark, 2007). Seven categories of goal contents were found: Competence, progression, well-being, job change, job security, organisation, and finance. In addition to these, an eighth "no work goals" category was formed, consisting of participants who had either not mentioned a work goal or mentioned a goal unrelated to work or

career. Each participant could be in only one of the eight goal categories (for further detail about the different stages in coding, see the original publications). A fourth independent coder applied the categorisation outlined by the first three coders and the intercoder agreement of the goal categories was 92%. The AC_1 coefficient was .92 (CI = 0.88, 0.94), indicating a high intercoder agreement (Gwet, 2008). The categorisation agreed by the three independent coders was used in the further analyses.

In Study III, the follow-up data included the participants' most important personal work goal in 2008. The same goal categories were found in the follow-up investigation as in the study baseline in 2006, and no new categories emerged. The intercoder agreement of the goal categories was 94% and the AC_1 coefficient was .94 (CI = 0.90, 0.96) between two independent coders. Of the two coders, one had been involved in the coding in 2006, but the other had not. These two coders decided together on what would be the most suitable categories for the remaining 6% of goals which had been coded into different categories during the first stage of independent coding.

Goal appraisals of personal work goals in 2006 were investigated in Study I. Goal appraisals were measured with 5 single items comprising importance (''How important is your goal?''; see Tuominen-Soini, Salmela-Aro, & Niemivirta, 2008), commitment (''How committed are you to your goal?''; see Tuominen-Soini et al., 2008), progress (''How far have you progressed in reaching this goal?''; see Salmela-Aro, Vuori, & Koivisto, 2007; Tuominen-Soini et al., 2008; Vasalampi, Salmela-Aro, & Nurmi, 2009), effort (''How much time and effort have you invested in this goal?''; see Tuominen-Soini et al., 2008; Vasalampi et al., 2009), and strain (''How strenuous or burdening is your goal?''; Salmela-Aro et al., 2007; Tuominen-Soini et al., 2008). Items were answered on a 5-point scale from 1 (not at all) to 5 (extremely).

2.3.2 Occupational well-being

The indicators of occupational well-being used in this research included burnout and work engagement. These indicators were included in Studies I and II. Further details regarding Cronbach's alphas, means, and standard deviations of the scales with this sample can be found in the original publications.

Burnout was included in Study I and II and was measured with the Bergen Burnout Indicator 15 (BBI-15; Näätänen, Aro, Matthiesen, & Salmela-Aro, 2003). The construct validity of the scale has been tested in previous studies in Finland (see Näätänen et al., 2003), as well as with this sample and an Estonian managerial sample (Salmela-Aro et al., in press). The scale has 15 items and includes three dimensions: Emotional exhaustion (5 items; e.g., ''I am snowed under with work''), cynicism (5 items; e.g., ''I frequently question the value of my work''), and reduced professional efficacy (5 items; e.g., ''My expectations to my job and to my performance have reduced''). Items were answered on a 6-point scale ranging from 1 (completely disagree) to 6 (completely agree). A higher mean score on this scale indicates higher burnout reported. According to Näätänen et al. (2003), emotional exhaustion (r = .87) and cynicism (r = .88) have

a strong positive correlation with the corresponding dimensions of the Maslach Burnout Inventory (MBI; Maslach et al., 1996). The third dimension of reduced professional efficacy showed a weaker correlation (r = .30) with the respective MBI dimension.

Work engagement was assessed using the Utrecht Engagement Scale with nine items (UWES-9, Schaufeli, Bakker, & Salanova, 2006). The construct validity of the short version (vs. the 17-item scale; Schaufeli, Salanova et al., 2002) of the UWES has proven to be better with this sample of young Finnish managers, as well as with other Finnish occupational groups (Seppälä et al., 2009). The scale has three dimensions, comprising vigour (3 items; e.g., ''At my work, I feel bursting with energy''), dedication (3 items; e.g., ''My job inspires me''), and absorption (3 items; e.g., ''I am immersed in my work''). Responses were given on a 7-point frequency scale from 1 (never) to 7 (every day). On this scale, a higher mean score indicates higher work engagement reported.

2.3.3 Psychosocial work environment and overcommitment

In Studies II and III, the dimensions of the ERI model (Siegrist, 1996) were used to describe the psychosocial factors in the work environment and personal feature, namely OVC. The dimensions of effort, reward, effort–reward imbalance, and OVC were measured using a scale developed by Siegrist et al. (2004). In Study II, all four dimensions of the model were utilised (effort, reward, effort–reward imbalance, and OVC), whereas only three dimensions were used (effort, reward, and effort–reward imbalance) in Study III. Further details regarding Cronbach's alphas, means, and standard deviations of the variables in 2006 and 2008 can be found in the original publications. The good construct and discriminant validity of the Finnish version of the ERI scale has been reported previously by Kinnunen et al. (2008) and Tarvainen et al. (2005).

Effort was assessed with 5 items describing the demands in the workplace (e.g., "I have constant time pressure due to a heavy work load"). If respondents answered the question affirmatively, they were asked to rate the impact of effort from "not at all distressed" to "very distressed". The scale was: 1) Does not apply; 2) does apply, but I am not at all distressed; 3) does apply, and I am somewhat distressed; 4) does apply, and I am distressed; 5) does apply, and I am very distressed. A higher mean score of effort indicates more effort invested at work.

Reward was assessed with 11 items, describing esteem (5 items; e.g., "I receive the respect I deserve from my superiors"), career opportunities (4 items; e.g., "Considering all my efforts and achievements, my salary/income is adequate"), and job security (2 items; e.g., "My job security is poor"). A similar rating and scoring procedure was used as described above for the effort scale. Some items were recoded in order for a higher mean score of reward to indicate more reward received at work.

ERI-ratio describes the imbalance between effort and reward. The ERI-ratio is calculated by first multiplying the sum score of reward with a correction factor (see Niedhammer, Tek, Starke, & Siegrist, 2004; Siegrist et al., 2004). Because 5 items were used to assess effort, compared to 11 items to assess

reward, the correction factor in this study was 0.4545. The sum score of effort is then divided by the corrected sum score of reward. A score close to "0" indicates favourable conditions, where the received reward outweighs the effort invested at work. In turn, a score over "1" indicates unfavourable conditions, where more effort is spent than reward expected or received in return. As recommended by previous studies (Niedhammer et al., 2004; Siegrist et al., 2004), a continuous variable of the ERI-ratio was used for the analyses.

OVC included 6 items (e.g., "As soon as I get up in the morning I start thinking about work problems"). The items were scored on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). The higher the score, the more OVC the participant reported.

2.3.4 Career events

In Study III, three dichotomous variables were included that described the work-related experiences of participants between the years 2006 and 2008. Participants' self-reports of their career events were enquired about at the second measurement point, in 2008. Career events included: Career disruptions 2006–2008 (no/some periods of unemployment or lay-offs); job changes on one's own initiation 2006–2008 (no/yes); and promotions 2006–2008 (no/yes).

2.3.5 Background variables

In Studies I, II, and III, the background variables controlled for in the analyses included gender (male/female), managerial level (upper/middle/lower), employment contract (permanent/fixed-term), and career disruptions before 2006 (no/some periods of unemployment or lay-offs since graduation). Participants indicated their managerial level in answer to a multiple-choice question presenting five choices that were recoded into the following three categories: Upper management (i.e., CEO or a member of the executive team), middle management (i.e., upper middle management, e.g., head of department; and lower middle management, e.g., team or project leader), and lower management (i.e., supervisory role). In addition to these, in Study I, the employment sector (private/public) and whether or not participants had children (yes/no) were also considered. All background variables used were measured in 2006.

2.4 Analyses

The research utilised a mixed method approach (Creswell & Plano Clark, 2007) to data analyses, including the categorisation of personal work goals into thematic categories (for further details, see the section outlining personal work goal measures) and various statistical data analyses performed with SPSS 15.0 for Windows (Studies I & II) and PASW Statistics 18.0.0 (Study III). A brief

overview of the main statistical methods used in the studies is given below and more detailed information about the analyses is available in the original publications.

In Study I, the main aim was to examine the relationships between the goal categories and occupational well-being measured with the indicators of burnout and work engagement. In previous research, goal appraisals have also been associated with well-being (e.g., Maier & Brunstein, 2001); hence, goal appraisals (importance, commitment, progress, effort, and strain) were used as covariates, in addition to significant background variables, when conducting Analyses of Covariance (ANCOVA). ANCOVAs were also performed to study whether the goal categories differed in terms of goal appraisals (significant background variables were again controlled for).

In Study II, firstly, multinomial regression analyses were calculated to examine to what extent the ERI components (effort, reward, ERI-ratio, OVC) predicted the membership to the goal categories. In these analyses, the background variables were adjusted for. Secondly, the indirect and moderating effects of goal categories between the ERI components and occupational well-being were addressed. This was achieved by means of the GLM (General Linear Model) with hierarchical partition of the sum of squares. In this procedure, the analysis of the indirect effect of goal categories is based on the following assumption: The different mean levels of the ERI components facilitate personal work goals that can be considered favourable or unfavourable according to their level of occupational well-being (burnout, work engagement). The mean differences of the ERI components in the goal categories can linearly predict the mean differences in burnout and work engagement. That is, the same rank order of goal categories can be observed both in the independent and dependent variables, but with different weight placed on the means of the categories.

In Study III, the changes in participants' most important personal work goals and psychosocial work environment were addressed. The changes in personal work goals were investigated by forming two goal-change groups for each goal category: 1) Participants who had not mentioned the goal in 2006, but mentioned it in 2008 (i.e., engaged in the goal); 2) Participants who mentioned the goal in 2006, but not in 2008 (i.e., disengaged from the goal). Separate ANCOVAs were performed for the two types of goal-change groups in order to compare differences between the goal categories in relation to effort, reward, and ERI-ratio. In order to compare the degree of change in the ERI components, difference scores were computed to describe the change between 2006 and 2008. The difference scores (i.e., the dependent variables in ANCOVAs) were formed by deducting the sum score of an ERI component in 2006 from the sum score in 2008 (e.g., reward in 2006 was deducted from reward in 2008). The goal categories in 2008 were the between–subjects factors when calculating the differences in the degree of change in the ERI components among the participants who had engaged in a goal, whereas the goal categories in 2006 were the between–subjects factors when calculating the differences among the participants who had disengaged from a goal.

3   OVERVIEW OF THE RESULTS

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

Study I approached young managers' occupational well-being through their personal work goal pursuit. The main aims were to identify content categories of personal work- and career-related goals and to investigate how these categories associated with background factors, goal appraisals, and occupational well-being (burnout and work engagement).

First, participants' (N = 747) responses to an open-ended question regarding their most important personal work goal were categorised thematically and seven goal categories were found: 1) Competence goals (30.5%), 2) progression goals (23.7%), 3) well-being goals (15.2%), 4) job change goals (13.7%), 5) job security goals (7.4%), 6) organisational goals (5.6%), and 7) financial goals (3.9%). An additional eighth category was formed, labelled "no work goals", including those participants who had either not mentioned a work goal or mentioned a goal unrelated to work or career. Taken together, a large proportion of young managers' personal work goals reflected career establishment, especially those goals relating to competence and progression. Together these two categories comprised over half (54.2%) of the participants' work goals. Second, of the background factors, managerial level, employment contract, and career stability were found to relate to the goal categories. These background factors were controlled for, in addition to gender that correlated with the absorption dimension of work engagement, in the further ANCOVAs.

Third, goal appraisals on all the investigated goal dimensions (i.e., importance, commitment, progress, effort, and strain) were found to be associated with the goal categories. In addition, particularly goal commitment, progress, and effort correlated with the dimensions of burnout and work engagement. Fourth, the goal categories were associated with burnout and work engagement and, most importantly, the categories explained independent

variance in burnout and work engagement after controlling for the effects of goal appraisals and significant background factors. For instance, ANCOVAs indicated that organisational goals were related to the highest level of occupational well-being, as indicated by low burnout and the highest level of work engagement. In contrast, well-being and job change goals were related to the lowest level of occupational well-being, since the participants who named these types of goals as their most important work goal reported higher burnout and lower work engagement. In Table 3, the main findings of Study I are summarised in addition to featuring a brief overview of the sample, measures, and analyses employed.

Study II
Hyvönen, K., Feldt, T., Tolvanen, A., & Kinnunen, U. (2010). The role of goal pursuit in the interaction between psychosocial work environment and occupational well-being. *Journal of Vocational Behavior, 76*, 406–418.

The main aim of Study II was to investigate the relation of the core components of the ERI model (Siegrist, 1996) to goal pursuit studied through the content categories of personal work goals identified in Study I (competence, progression, well-being, job change, job security, organisation, finance, and no work goal). Firstly, this study investigated the contribution of the ERI components (effort, reward, effort–reward imbalance, and OVC) on the contents of personal work goals. Secondly, indirect and moderating effects of the contents of personal work goals between the ERI components and occupational well-being (burnout, work engagement) were analysed. The sample comprised the same participants as in Study I ($N = 747$).

Multinomial regressions showed that effort, reward, and ERI-ratio contributed to the membership to the goal categories. Reward and ERI-ratio were particularly significant contributors to the goal categories. Hierarchical GLM indicated that the ERI components also had an indirect effect through the goal categories on occupational well-being. More specifically, the dimensions of effort, reward, and effort–reward imbalance had an indirect effect through goal categories on burnout and work engagement, but overcommitment only on burnout.

To summarise the main findings, high reward and low effort–reward imbalance was reported by participants naming organisational goals. The indirect effects of goal categories reiterated these findings by indicating a further connection between favourable psychosocial work environment (high reward, and low effort, ERI-ratio, and OVC), organisational goals, and higher occupational well-being (high work engagement and low burnout). A less encouraging picture emerged in relation to well-being goals, job change goals, and not naming a personal work goal. In brief, participants in these goal categories, on average, experienced the psychosocial features of their work environment as significantly less favourable in conjunction with higher burnout

and lower work engagement. In addition, a moderating effect was found among participants with financial goals: For these participants, lower reward was associated with higher work engagement, whereas higher reward was associated with lower work engagement. The direction was opposite for participants mentioning goals such as competence, progression, job change, and job security. Table 3 summarises information about the sample, measures, analyses, and the main findings of Study II.

Study III
Hyvönen, K., Feldt, T., Kinnunen, U., & Tolvanen, A. The changing context of personal work goals: The psychosocial work environment and personal work goals in a two-year follow-up study. Submitted for publication.

Study III was conducted to investigate the changes in participants' most important personal work goals identified in Study I, measured over a two-year follow-up period (2006 and 2008). The changes in personal work goals – competence, progression, well-being, job change, job security, organisation, and finance – were investigated within the context of the ERI model (Siegrist, 1996). Study III focused on 423 participants who took part in the study at both measurement points and who were employed at these times.

The main findings indicated that the same categories of personal work goals were found in 2008 as in 2006, without any new goal categories emerging, but the personal work goals had also changed. Notably, while the sizes of the goal categories remained similar at the follow-up measurement point in 2008, the category of participants with organisational goals almost doubled in size. The clearest results regarding the association between changes in psychosocial work environment and personal work goals were seen in regard to a reduction in reward observed among participants who engaged in job change goals, in contrast to the participants who engaged in competence or organisational goals who reported an increase in reward.

Furthermore, favourable changes were reported in the psychosocial work environment – an increase in reward and a reduction in effort–reward imbalance – among participants who disengaged from job change goals, particularly when compared to the participants who disengaged from job security goals who reported a reduction in reward and an increase in effort–reward imbalance. These results, indicating that psychosocial stressors in the work environment are associated with the goals employees pursue at work over the two-year follow-up period, can also be considered important from the perspective of occupational well-being. That is, these results suggest that the most prominent associations were found in relation to changes in reward and changes in personal work goals. Table 3 summarises information about the sample, measures, analyses, and the main findings of Study III.

TABLE 3 A summary table of the studies in this research

Study	Participants & Study design	Measures			Outcome	Main analyses	Main results regarding personal (work) goals
		Goal content	Goal appraisals	Other personal/ environmental features			
Study I: Hyvönen et al. (2009)	747 participants in a management position at the age of 36 years or younger	Self-set, most important personal work goal	Goal importance, commitment, progress, effort, and strain	–	Burnout, work engagement	Thematic categorisation of goal contents, ANCOVAs	The personal work goal categories found explained independent variance in occupational well-being over and above goal appraisals and background variables.
Study II: Hyvönen et al. (2010)	747 participants in a management position at the age of 36 years or younger	Self-set, most important personal work goal	–	Effort, reward, effort–reward imbalance, OVC	Burnout, work engagement	Multinomial regression analyses, hierarchical GLM	Components of the ERI model contributed to the contents of personal work goals, which also functioned as mediators, particularly between the factors related to the work environment and occupational well-being.
Study III: Hyvönen et al. (submitted)	423 participants in a management position at the age of 36 years or younger at the baseline of a 2-year follow-up study	Self-set, most important personal work goal	–	Effort, reward, effort–reward imbalance	Changes in personal work goals	Thematic categorisation of goal contents, ANCOVAs	The most prominent associations were found between changes in reward and changes in personal work goals, particularly in relation to competence, job change, job security, and organisational goals during the 2-year follow-up period.

4   GENERAL DISCUSSION

4.1   Main findings of the research

For this research into personal work goals, I applied an existing theory of personal action from the social ecological model of well-being (Little 2000, 2007) to the work domain within the remit of a work stress model (i.e., the ERI model; Siegrist, 1996). First, in the work domain, eight categories of personal work goals were identified on the basis of the contents of young Finnish managers' most important personal work- or career-related goals: Competence, progression, well-being, job change, job security, organisation, finance, and no work goal. According to the social ecological model of well-being (Little, 2000, 2007) and research on personal goals (e.g., Salmela-Aro et al., 2000; Salmela-Aro et al., 2007), different environmental features and life contexts channel goals. In line with my theoretical model (Figure 1), I considered the role of the psychosocial work environment – as described by the effort, reward, effort–reward imbalance components of the ERI model (Siegrist, 1996) – in the pursue of personal work goals. As expected, the second main finding of this research indicated that these components of the ERI model contributed towards the contents of the most important personal work goals of participants. Furthermore, the changes in reward and effort–reward imbalance related to changes in personal work goals over the two-year follow-up period. In addition to the environmental features (i.e., psychosocial work environment as investigated in this research), personal features can also affect personal goal pursuit according to the social ecological model (Little, 2000, 2007). However, in this research, the investigated personal feature, namely overcommitment, was not found to contribute to the contents of participants' most important personal work goals.

Previous studies have shown that appraisals of personal work goals contributed to employee well-being (e.g., Harris et al., 2003; Kehr, 2003; Maier & Brunstein, 2001), the effect which persisted after controlling for the factors related to the psychosocial work environment (e.g., Pomaki et al., 2004).

Nevertheless, the relationship between contents of personal work goals and occupational well-being has remained largely unexplored (Pomaki et al., 2004). Therefore, the third main finding of the research related to showing that there was a significant relationship between the contents of personal work goals and occupational well-being (i.e., burnout and work engagement) over and above the effect of goal appraisals. Moreover, the contents of personal work goals were found to play an indirect (i.e., mediating) and moderating role between the features of the psychosocial work environment (effort, reward, and effort–reward imbalance) and occupational well-being (burnout and work engagement). In addition, the contents of personal work goals had an indirect effect between overcommitment and burnout. Next, these main findings are discussed in further detail in relation to relevant research and literature.

4.2   Prominent personal work goals among young managers

The personal goals found most frequently among participants at the study baseline (in 2006) were those related to competence (n = 209; 30.5%) and progression (n = 162; 23.7%). Competence goals formed the largest category, including learning, job performance, and other self-development goals referring to technical and relational skills. These personal work goals were also in line with a study by Wiese and Salmela-Aro (2008), wherein a third of working adults named goals related to learning and job performance. Goals related to progression, in turn, were focused on receiving promotion and moving up on the career ladder. Competence and progression goals also closely resembled the developmental tasks associated with the vocational stage of career establishment (e.g., Super, 1985, 1990), such as position performance and advancement (Dix & Savickas, 1995). Therefore, competence and progression goals could describe a focus towards work and career that is very relevant to and appropriate of this age of employees in the beginning of their managerial career.

These findings received support from the follow-up investigation in 2008. Around 40% of the participants who reported having competence or progression goals at the study baseline, also focused on either of these goals at the time of the follow-up study. Thus, approximately a third of all study participants mentioned competence or progression goals in 2006 and either of these goals again in 2008. Overall, evidence from research on personal goals suggests that work-related personal goals account for an increasingly important life orientation in young adulthood, in addition to family- and health-related goals (Salmela-Aro et al., 2007). Therefore, career decisions may feel as central to the future life design and encourage participants to optimise resources for these goals through assimilation processes (Brandtstädter, 2009); for instance, persistence in professional and career development could be particularly typical in young adulthood. Surprisingly, however, the findings regarding goal appraisals indicated that participants with progression goals considered their

goals to be less important and were less committed to them compared to participants with other types of personal work goals. It could be that receiving a promotion is more dependent on organisational decisions than on the individual employee, and subsequently progression goals might be rated lower in importance and commitment than goals that participants feel more in control (e.g., competence or organisational goals).

Personal work goals focused on job security and finances can also be timely for this age group of managers, but these goals also signal a certain level of uncertainty about the continuity or financial rewards of their employment. Both job security and financial goals refer to participants' current employment situation and contract. Participants with job security goals in 2006 were more likely to be from lower management, in a fixed-term employment contract, and had experienced career instability (i.e., unemployment and/or lay-offs) since graduation than participants with other goals. Hence, it seems that such background factors may partly contribute towards goals related to securing future employment. It could be that the participants with financial goals perceived a discrepancy between their actual pay and what they feel would be a fair level of pay for their work. These participants did not actually report a significantly lower level of pay than the others when all the participants' reported salaries were compared in a subsequent analysis.

Well-being and job change goals raise further concerns regarding the satisfaction of the participant in their current employment situation. Well-being goals related to general well-being at work and consisted of goals such as managing stress, moving away from shift work, and reducing overtime hours. Some of these goals may, in particular, reflect secondary control (e.g., Heckhausen & Schulz, 1995) through which the participants attempt to influence themselves and apply their cognition to cope better in the work environment (e.g., managing stress). On average, these participants felt that they had made less progress towards their goals than participants with some of the other goals (i.e., competence, job security, and organisational goals). Job change goals, in turn, referred to intentions of finding a new job, becoming self-employed, or changing profession. As opposed to well-being goals, these goals signal behaviour directed towards changing the work environment, which might be typical when engaging in primary control (Heckhausen & Schulz, 1995). Compared to other goals, job change goals were rated as being less strenuous. Participants also reported investing less time and effort and were less committed and made less progress towards such goals. Overall, job change goals were named more frequently by these participants than in a previous study by Wiese and Salmela-Aro (2008), in which only 4.9% of participants mentioned personal work goals related to job change. The higher percentage of job change goals (13.7%) observed in this research could be linked to the career stage and the age of the participants; that is, establishing a career can also include reconsidering career choices and making new plans (Dix & Savickas, 1995).

The two-year follow-up investigation of personal work goals showed that there were noticeable changes in goals. This was in accordance with the expectations based on the theories proposing that the contextual features – with changing demands and opportunities – are also manifested in personal goals (e.g., Baltes, 1997; Freund & Riediger, 2006; Little, 2007; Salmela-Aro, 2009). However, the same goal categories (e.g., competence, progression, well-being, job change, job security, organisation, finance, and no work goal) were found at both measurement points in 2006 and 2008. The proportion of participants in each goal category remained similar across the measurement times, with the exception of organisational goals. Organisational goals refer to the personal work goals of participants that were directed towards the success or performance of the team, department, or organisation that these participants were working for. These goals were more likely to be named by participants in upper management positions and received higher ratings in all dimensions of goal appraisals (e.g., importance, commitment, progress, effort, and strain). Organisational goals may be specifically characteristic of managerial samples, since these goals did not emerge as an independent category in a previous study by Wiese and Salmela-Aro (2008) with a range of professionals. As could be expected on the basis of previous research on top corporate leaders' goals (Bateman et al., 2002), the number of participants who mentioned organisational goals almost doubled during the follow-up period ($n = 24$; 5.7% in 2006, and $n = 43$; 10.2% in 2008). Although this goal category was the second smallest category of goals in 2006, its growth suggests that, with increasing work experience and career progression, young managers gain a wider perspective of their responsibilities and role within the organisation. The growing focus and interest towards organisational performance could also signal that more participants have reached a level where they feel satisfied with their competence and professional position.

Taken together the findings regarding the prominent personal work goals of the participants, the named goals could reflect – in addition to participants' current career concerns – goal choices made on the basis of previous work history, as well as the wider social, cultural and historical life contexts as suggested by theory related to personal goals (e.g., Baltes, 1987; Baltes, 1997; Baltes & Baltes, 1990; Freund & Riediger, 2001; Heckhausen & Schulz, 1995). For example, it is possible that some of the older participants in this sample might have been affected by the recession and poor employment opportunities in the Finnish labour market in the 1990s. It is also worth noting that the follow-up measurement was conducted in the spring of 2008, when the unrest in the financial sector had not yet fully spread. These types of events in the national and global economy can also have a major bearing on the future career and life planning of employees; however, it was not in the scope of the current research to fully address these issues.

4.3 Psychosocial work environment and personal work goals

With the dimensions of effort, reward, and effort–reward imbalance of the ERI model (Siegrist, 1996), the contribution of the psychosocial work environment to the contents of personal work goals was investigated. In accordance with the theoretical model of this research (Figure 1), psychosocial work environment was found to play a significant role in the most important personal work goals of young managers. This finding paralleled the social ecological model of well-being, suggesting that various dynamic and stable environmental features can have an impact on personal goals (Little, 2000, 2007).

When considering the findings from both the cross-sectional study and the two-year follow-up study, the contribution of reward (e.g., esteem, job security, and career opportunities) in the work environment stood out as a principle factor in the pursuit of personal work goals. The most pertinent results were related to reward and to job change goals. First, participants with job change goals considered their work environment as the least favourable with a higher level of psychosocial stressors (the lowest reward and high effort–reward imbalance) at the study baseline in 2006. Second, an increase in reward and a reduction in effort–reward imbalance between 2006 and 2008 were reported by participants who disengaged from job change goals in 2008. And third, a decrease in reward was reported by participants engaging in job change goals as the most important personal work goal in 2008.

Reflecting these consistent findings on the social ecological model of well-being (Little, 2000, 2007), job change goals may be linked to the participants' intentions to improve their working conditions by looking for alternative employment by changing jobs or becoming self-employed. This finding is also in line with previous research among managers showing that higher effort–reward imbalance was related to stronger intentions of leaving an organisation (Kinnunen et al., 2008). Engaging in job change goals could therefore be a response to a decline in resources that, according to Brandtstädter (2009), can mobilise accommodative processes towards goals through which the individual can redirect resources to better alternatives. This behaviour can also reflect primary control (Heckhausen & Schulz, 1995), that is, exerting effort towards the work environment rather than towards adapting oneself, as mentioned previously. Previous research on personal goals has also shown that a work environment that is perceived as unfavourable for attaining personal goals predicted lower organisational commitment at study follow-ups four and eight months later (Maier & Brunstein, 2001). Thus, if the participants who engaged in job change goals as their most important personal work goal in 2008 considered their work environment as increasingly unsupportive of their other work goals (e.g., professional development, further training, or career progression goals), then this could lead to job change goals becoming prioritised.

Along similar lines, at the study baseline in 2006, low reward and high effort–reward imbalance were also found to contribute towards well-being goals and not mentioning a work goal. Interestingly, effort in the psychosocial work environment contributed only to naming well-being goals. This finding suggests that the participants who perceived their work environment to be burdening them with strains of higher responsibilities and demands (e.g., interruptions and overtime) were also more likely to name goals, some of which reflected concerns regarding well-being, job satisfaction, and the balance between home and work. Previous research supports this link, since higher effort has in fact been associated with higher emotional exhaustion (e.g., Dai et al., 2008; de Jonge et al., 2000; Willis et al., 2008) and lower job satisfaction (e.g., Calnan et al., 2000; de Jonge et al., 2000; van Vegchel et al., 2001). In spite of these findings, changes in the psychosocial work environment during the two-year follow-up study did not appear to have a significant relationship with changes in these goals. Taken together, in terms of career adaptability (e.g., Dix & Savickas, 1995; Savickas, 1997), job change and well-being goals, in particular, may reflect goals that exemplify the purposeful attempt of adapting one's career to different demands placed on the employee by job roles and various life contexts. However, these participants' work environment might not have been the most conducive for resolving some of the core vocational development tasks of this age group of managers.

The findings related to the participants with no work goal are more problematic to interpret, since these participants represent a more heterogeneous group. These participants had left the question regarding their personal work goal unanswered, had mentioned an irrelevant goal, or had specifically stated that they have no personal work goal. Therefore, various reasons may lie behind their nonresponse. It is plausible that some of these participants felt too overloaded to respond to an open-ended question, as suggested by previous research in relation to nonparticipation in survey studies (Barr, Spitzmüller, & Stuebing, 2008). Nevertheless, these participants had responded to other multiple choice questions on the questionnaire and this opens an interesting question regarding the relationship between a less favourable work environment and this nonresponse to the question on personal work goal. That is, experiencing higher psychosocial stressors in the work environment (low reward and high effort–reward imbalance) could contribute towards uncertainty about one's future professional direction.

In contrast, the positive contributions of favourable work environments to personal work goal contents were also evident among participants who were focusing on goals related to competence, progression, job security, or the organisation. On average, competence and progression goals were linked to a reasonably good level of reward (as well as average levels of effort and effort–reward imbalance), while job security goals were associated with low effort and effort–reward imbalance (and average reward) when compared, for example, to well-being and job change goals at the study baseline in 2006. In addition, organisational goals were associated with probably the most favourable work

environments characterised with the highest level of reward as well as low effort–reward imbalance. The two-year follow-up study also provided support to some longitudinal connections: An increase in reward was reported by participants engaging in competence and organisational goals, while a reduction in reward and an increase in effort–reward imbalance was reported by participants disengaging from job security goals as their most important personal work goal. That is, a positive change through perceiving the stressors in the work environment alleviating could promote goals related to competence and organisational performance. In turn, through a qualitative inspection of the personal work goals of the participants who disengaged from job security goals, better opportunities or a less stressful working environment were mentioned frequently and participants shifted towards progression, well-being, or financial goals in the follow-up study.

4.4 Associations of personal work goals with occupational well-being

The contents of personal goals have demonstrated their importance in psychological well-being and adaptive outcomes (e.g., Salmela-Aro & Nurmi, 1997b; Sheldon et al., 2004; Shulman & Nurmi, 2010), but the question concerning the relationship between the contents of personal work goals and occupational well-being has remained unanswered. Hence, a significant contribution of this research was to establish that the contents of personal work goals associate with occupational well-being (burnout and work engagement). This effect remained even after controlling for the effect of goal appraisals (i.e., importance, commitment, progress, effort, and strain), which have been associated with occupational well-being outcomes in previous research (e.g., Maier & Brunstein, 2001; Pomaki et al., 2004).

In spite of the small number of participants who mentioned organisational goals as their most important personal work goal, these goals had the strongest beneficial associations with occupational well-being when measured in 2006. These participants experienced low burnout and the highest work engagement. In light of previous research, this group of participants may have tackled some of the previous vocational development tasks successfully (e.g., performance and advancement) and moved on to making career choices and plans, including combining personal and company goals (see Dix & Savickas, 1995). Previous research has also indicated that job involvement – which may be reflected in the participants' focus on organisational goals – has a strong link with positive job attitudes, such as job satisfaction (for a review, see Brown, 1996).

Furthermore, the findings regarding the indirect effect of goal contents (i.e., goal contents as mediators) between the features of the psychosocial work environment and occupational well-being reiterated the aforementioned results. That is, especially the participants with organisational goals perceived their

work environment as rewarding, with a favourable reciprocity of effort invested and reward received, which linearly predicted low burnout and high work engagement in 2006. This finding is also in line with previous research, where facilitative and favourable work environments for goal attainment have been connected with positive well-being outcomes (Maier & Brunstein, 2001; ter Doest et al., 2006). In addition, goal congruence can promote health and psychological well-being (e.g., Sheldon & Kasser, 1995) and, among managers in particular, goal conflict has been found to hinder the attainment of new goals (Kehr, 2003). It could be that participants with organisational goals had more opportunities to focus on the core tasks of their position (e.g., managerial and leadership tasks) in the workplace. Thus, a favourable work environment does not only promote occupational well-being among managers as also suggested by a previous study by Kinnunen et al. (2008), but moreover contributes to pursuing goals beneficial to organisational performance as indicated by the present findings.

As expected on the basis of previous research on personal goals and age-related developmental tasks (Salmela-Aro & Nurmi, 1997b; Salmela-Aro, 2009), the goals related to the vocational development stage of career establishment (i.e., competence and progression) also had positive associations with occupational well-being. As mentioned, these goals relate to the developmental tasks of job position performance and advancement found in a previous study by Dix and Savickas (1995). Generally, a good level of reward and an average level of effort and effort–reward imbalance linearly predicted a slightly lower-than-average level of burnout and good work engagement among participants with competence and progression goals. Previous research by ter Doest and colleagues (2006) has also supported these findings, especially in relation to competence goals, by indicating that the facilitation of personal growth goals – related to learning and development – in the workplace had a strong association with job satisfaction among the employees who considered these goals as fairly important.

Taken together, competence, progression, and organisational goals can reflect a situation where the participants have settled within their job and organisation, and are now striving forward in their career. The findings resemble the findings by van den Broeck et al. (2008) suggesting that a work environment that is experienced as meeting the basic needs (or personal work goals in this study) of its employees facilitates positive occupational well-being outcomes. In addition, in line with the social ecological model of well-being (e.g., Little, 2000, 2007; see also Grant et al., 2007), these goals may represent those participants who are navigating through the demands and opportunities of their work environment that matches their personal characteristics and supports their work-related expectations, thereby promoting well-being and adaptation. Overall, clear personal work goals and good occupational well-being might be the key resources for supporting career adaptability in the modern professional world with its increasing expectations of individuals' proactive involvement in their own career development (Briscoe & Hall, 2006).

The goals focusing on job security and finances were related to moderate occupational well-being, measured in 2006. In fact, among participants with job security goals, the lowest levels of effort and effort–reward imbalance (and average reward) linearly predicted the lowest level of burnout, but only average work engagement. Temporary workers were overrepresented among participants with job security goals in 2006 and there exists contradictory evidence regarding the job attitudes and occupational well-being of temporary workers (for reviews, see de Cuyper et al., 2008; Virtanen et al., 2005). Some research has even indicated that temporary employees have better well-being than permanent employees especially under uncertain employment conditions (e.g., threat of a redundancy, Mauno et al., 2005).

An interesting finding was also made in relation to the small number of participants with financial goals. Financial goals were found to moderate the relationship between reward and work engagement; that is, a lower level of reward was associated with higher work engagement than when compared to a situation with high reward. This was characteristic of participants with financial goals, as the direction tended to be the opposite for participants with other goals. It could be that once a fair level of reward has been achieved, financial goals are less motivating and energising for young managers. For example, in previous research, it has been found that viewing work mainly as a job providing financial means rather than giving enjoyment was associated with significantly lower job and life satisfaction when compared to experiencing a calling towards the work (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). However, it should also be noted that only one out of 11 items on the reward scale (Siegrist et al., 2004) relates to measuring participants' perception of strain related to their current salary. Therefore, it could be that participants with financial goals perceive themselves as, for example, having good career opportunities and a supportive work environment, but are not satisfied with the financial rewards that the job offers. In fact, this view received some support by post hoc tests that showed that participants with financial goals as their most important personal work goal in 2006 considered their pay as significantly less adequate when compared to the other participants [t (740) = -2.09, $p <$ .05], although there were no significant differences in the actual amount of salary.

Well-being and job change goals, as well as not mentioning a work goal, were associated with lower occupational well-being. The indirect effect of these goals was observed when less favourable work environments – offering lower reward and higher effort–reward imbalance – were associated with high burnout and low work engagement. Furthermore, an increase in psychosocial stressors at work as manifested in the reduction of reward over the two-year follow-up period could have a direct impact on occupational well-being (e.g., Dai et al., 2008; Willis et al., 2008), as well as an indirect effect through job change goals on higher burnout and lower work engagement as suggested by the current findings. According to the social ecological model of well-being (Little, 2000, 2007; see also Grant et al., 2007), especially in regard to well-being

and job change goals, these participants may be seeking better adjustment by focusing on some of the stressors of the work environment (e.g., well-being goals focused to reducing working hours). Similarly, finding a new job or becoming self-employed could be a strategy for better adjustment and well-being among participants with job change goals.

This research also took a personal feature, namely OVC, into account that has been thought to represent a risk factor for occupational well-being (De Jonge et al., 2008; Siegrist et al., 2004). In this research, OVC had a lesser role than the other dimensions of the ERI model (effort, reward, and effort–reward imbalance) with respect to both the content of personal work goals and occupational well-being. OVC was not found to contribute to the contents of the participants' work goals when other goal categories were contrasted with organisational goals (chosen as a reference group due to its association with the highest level of occupational well-being). Nevertheless, an indirect effect of goal contents was observed in the relation between OVC and burnout. For instance, the highest OVC among participants with well-being goals was reported in conjunction with the highest level of burnout. In line with previous studies (e.g., Dai et al., 2008; Willis et al., 2008), OVC was found to have a direct effect on burnout. However, no relationship was found between OVC and work engagement.

According to the social ecological model, ''free traits'' refer to shaping and adjusting personal dispositions in order to meet contextual requirements (Little, 1996; Little, 2000; Little & Joseph, 2007). This may be done strategically in order to strive towards core goals: For example, an introverted employee can become an enthusiastic speaker in an important business meeting. OVC might therefore be best described as a free trait. OVC may have a closer connection with goal appraisals than with goal contents. For instance, when the pressures of the work environment increase, the participants with more difficulties in detaching from work-related activities could perceive their goal as being more straining and time-consuming than others would, but nonetheless they might persevere with their personally salient work goal.

4.5 Strengths and limitations of the research

One of the main strengths of the research was that a mixed method approach (e.g., Creswell & Plano Clark, 2007) was employed to investigate personal work goal pursuit. Self-articulated personal work goals were coded into thematic categories in regard to which statistical methods were utilised. Thus, in this research, I took advantage of various analyses, extending a data-driven approach to the contents of personal work goals to studying differences between these identified groupings. A second strength of the research related to the target group comprising a large sample (N = 747) of participants, aged 36 years or younger, all of whom were in a management position at the study baseline in 2006. Subsequently, the research was able to generate new

information about the goal pursuit of managers who are at the establishment stage of their career.

The theoretical strengths of this research are rooted in the combination of established models in personal goal literature (the social ecological model of well-being; Little, 2000, 2007) and work stress literature (the ERI model; Siegrist, 1996). This research tested the role of personal work goals in the interaction between psychosocial work environment and occupational well-being. Accordingly, the research also considered some of the main findings of existing theory and research on life-span development relating to personal goals (e.g., Baltes, 1997; Brandtstädter, 2009; Little, 2007; Salmela-Aro, 2009). Taken together, the main theoretical contribution of this research was that, for the first time, specifically the contents of personal work goals were investigated in relation to psychosocial work environment and occupational well-being. Moreover, a two-year follow-up time provided important information about the changes in personal work goals and how these might be associated with some of the changes within the work contexts of the participants (i.e., psychosocial work environment).

Additional consideration should be given to several limitations that restrict the inferences that can be drawn on the basis of the research findings. First, in terms of the generalisability of the results, having a specific target population (i.e., young Finnish managers who were mainly men and employed in technical fields) impacts the extent to which these findings can be applied to other employees in other countries. For instance, organisational goals refer quite specifically to leadership and managerial tasks in this research, but were not identified as an independent category of personal work goals in the study by Wiese and Salmela-Aro (2008). The young managers in this study are also likely to represent a fairly successful professional group among whom a large majority had completed further education and had permanent job contracts, which is why only careful inferences can be drawn regarding the career establishment of other, for example, less advantaged occupational groups.

The second main limitation of the research was that only the most important personal work goals were investigated. Participants are likely to have more than just one work- or career-related goal, and the goals are likely to be interwoven and hierarchical in nature. For example, through career progression, a participant might be aiming for better financial rewards. Within the boundaries of this research, however, it was possible to highlight findings in relation to the participants' primary focus in the workplace, but not generate more in-depth knowledge regarding the more complex goal structures at work (e.g., other important personal work goals could also have an impact on occupational well-being). Third, all of the measurements incorporated in this research were based on questionnaire data that are subject to the well-known limitations associated with self-report and same-source bias. Additional objective outcome measures would be beneficial in future studies, for instance, in order to establish the health and well-being of participants.

Fourth, the small group sizes (e.g., participants with job security, organisational or financial goals) may have also restricted finding statistically significant results in some analyses. Furthermore, due to the small group sizes, the participants who engaged in (or disengaged from) a particular personal work goal were grouped together, and thus only the most prominent relationships with the psychosocial work environment stood out. That is, goal changes could be connected either to improvement or deterioration of the psychosocial factors in the work environment in any of the goal groups representing change. As a result, the findings underscored the principle associations, such as the reported improvement in the psychosocial work environment of participants disengaging from job change goals.

The fifth main limitation of the research was that causal relationships could not be established. Studies I and II were based on cross-sectional data collected at the study baseline in 2006, whereas Study III also utilised the data from the follow-up survey in 2008. However, in spite of the longitudinal data, Study III could not substantiate any causal relationships between features of the psychosocial work environment and personal work goals by means of ANCOVAs. Both causal directions are possible; that is, the psychosocial work environment could affect the focus of personal work goals, while participants' personal work goals could influence their perception of psychosocial stressors in the workplace.

4.6   Practical suggestions and applications

At the centre of this research were the personal work goals of young managers, emphasising the importance of self-articulated goals in the early career stages. This research revealed the main hopes and wishes of managers of this age group: Further professional development and training (competence goals) and career progression (progression goals). These findings imply that supporting career development by offering opportunities for training and skill development, as well as career progression, during the early stages of young managers' careers in technical fields can be a key way of responding to and meeting some of the most important expectations and strivings of this age group of professionals.

As this research has indicated, it is worthwhile to acknowledge and consider employees' personal work goals as these can differ from the goals that organisations impose on and/or expect their employees to achieve. That is, while the most important personal work goals may sometimes be in line with what the organisation expects from their employees (i.e., organisational goals), at other times there could be a discrepancy or conflict between what employees are striving for in their work or career (e.g., well-being, job security, or financial goals) and what the organisation expects or can offer. This is of important since goal conflict has been shown to be disadvantageous for psychological health (Karoly & Ruehlman, 1996) and for the attainment of new goals (Kehr, 2003),

whereas the attainment of goals has been shown to result in positive occupational well-being outcomes (e.g., Harris et al., 2003; Kehr, 2003). In terms of promoting career adaptability (Savickas, 1997), particularly employees with conflicting goals could therefore benefit from organisational support (e.g., mentoring programmes) and career counselling to set and evaluate personal work goals that are motivating and achievable in their current life context.

This research also gave clear indications of some of the psychosocial factors in the work environment related to young managers' intention to change jobs. Young managers who perceived their level of reward (e.g., esteem, job security, and career opportunities) as low and effort–reward imbalance as high were more likely to focus on job change goals as their most important personal work goal. In addition, a reduction in reward was associated with engaging in job change goals over the two-year follow-up period. The majority of the participants who engaged in job change goals by 2008 had focused on competence, progression, or well-being goals at the previous measurement point in 2006. Thus, it could be that these participants perceived themselves as having less opportunity to attain their most important personal work goals in the current context and, as a consequence, began re-evaluating their employment options. This perspective can provide practical suggestions for organisations (e.g., for the top management and line managers) for the promotion of commitment among their young managers, in which emphasis on appropriate rewards and a reciprocity of effort and reward can play a pivotal role. Furthermore, on the basis of this research, well-being and job change goals were connected to the lowest occupational well-being, a finding which advocates occupational health interventions to be targeted at boosting the occupational well-being of employees with these types of personal work goals. Particularly the employees who prioritised well-being goals could be motivated by and benefit most from such occupational health services.

In addition to having awareness of their own personal work goals, managers also need to have an understanding of the personal work goals that might be affecting the work of their team, in order to better support and promote joint team and organisational goals among their team members and subordinates. Managers are in a key position within an organisation and therefore have the responsibility of also influencing the behaviour of their team members to work towards reaching organisational goals (Shackleton & Wale, 2000). Again, rewards in particular, can be instrumental in supporting personal work goals that are in line with organisation-wide goals (organisational goals) and further professional development and training (competence goals).

4.7   Avenues for future research

4.7.1   Goal measures related to contents of personal work goals

The goal constructs related closest to the contents of personal work goals are appraisals of personal work goals that have already received growing research interest, as was seen in Table 1. In this research, the relationship between appraisals and contents of personal work goals were considered in Study I, which showed that goal appraisals differed depending on the content of the goal. Goal appraisals have also been found to contribute to occupational well-being over and above the characteristics of the work environment (e.g., Pomaki et al., 2004). Accordingly, these findings give a clear indication that future studies would also benefit from accounting for differences in goal appraisals between different goal contents in relation to occupational well-being; for instance, it could be that personal work goals that are perceived as being in conflict with goals imposed by the organisation strengthen the detrimental effects on occupational well-being outcomes (i.e., goal appraisals could have a moderating effect).

A fresh perspective on personal work goals could be offered by motives and goal orientations that are motivational constructs conceptually close to the contents of personal goals. For example, motives and goal contents have been shown to have an independent contribution on well-being (Sheldon et al., 2004). In addition, according to DeShon and Gillespie (2005), motivational orientation in the work environment refers to an individual's typical choice behaviour in achievement contexts. That is, some participants may have quite a strong goal orientation that drives their behaviour in achievement situations, such as when completing work projects. In accordance with the social ecological model of well-being (Little, 2000, 2007), goal orientation or motives may represent an individual's personal feature (e.g., free trait) that can potentially shed light on why certain personal work goals are chosen and pursued. To my knowledge, this approach to personal work goals is yet an unexplored field of research and would be particularly informative if considered in conjunction with some indicators of occupational well-being.

Although using an open-ended question was a unique contribution of this research that produced authentic information about goal pursuit in the work context, a new measure with structured questions would be a step forward. This research could be used as a foundation for designing and then validating a structured measure for the contents of personal work goals with large samples of participants. Participants could be asked to rate each personal work goal domain found in this research (e.g., competence, progression, and well-being) on various goal appraisal dimensions (e.g., importance, progress, and attainment). When taking the personal work goal approach further through the analyses of representative samples (e.g., age- and gender-balanced samples) of participants from various occupational groups, structured questions would

allow faster and more efficient data collection and analyses. Easier survey and interpretation methods would also improve the applicability of personal goal approach in organisations and occupational health services: They could, for instance, gain information about the personal work goals that employees are pursuing and consider the related organisational and occupational well-being factors.

4.7.2 Longitudinal investigation of personal work goal structures

An ongoing investigation following the changes in personal work goals over a longer period of time would be necessary in order to progress this research. Previous research on personal goals has already shown that personal goals tend to change with age (e.g., Nurmi, 1992; Salmela-Aro et al., 2007) in order for the individuals to respond to various demands and opportunities at different life stages. Questions arose from this research regarding changes in personal work goals during the different stages of a career. These changes may be age-dependent to a certain degree. For example, different personal work goals might be prioritised at various stages and may subsequently have also dissimilar associations with well-being and adaptation at different times in a career. Additionally, future investigation could reveal whether the increasing number of organisational goals reflects career development facilitated through gaining work experience and a wider perspective regarding the job role. As already seen over the two-year follow-up period during which the number of participants with these types of goals almost doubled, it could be that this trend will be seen increasingly once young managers progress forward in their careers. In contrast, questions are still left unanswered regarding the long-term effects of career disruptions and work environments perceived as less favourable by some of the participants. Hence, particularly participants with job change goals (and possibly also participants with job security goals) could represent a group characterised by accumulating career disruptions and a strenuous work environment, causing career stability, and well-being to be jeopardised in the long run.

In further investigations, the psychosocial work environment should be considered in order to accumulate evidence regarding the effects of work strain on employees' career development and planning. As theorised, the findings of this research supported the notion of the social ecological model of well-being (Little, 2000, 2007) according to which stable and dynamic environmental features play a role in personal goals and well-being. The reward dimension of the ERI model (Siegrist, 1996) was a particularly significant contributor to the contents of personal work goals and therefore the rewards in psychosocial work environments should be given a deeper inspection. In a previous study, no significant correlations were found between the different reward factors (salary, esteem, and job security), and moreover, they had specific contributions to effort–reward imbalance as well as to health indicators (van Vegchel, de Jonge, Bakker, & Schaufeli, 2002). Therefore, it would be worthwhile to consider the influence of individual reward factors on personal work goal pursuit and

occupational well-being. Although the overcommitment dimension of the ERI model (Siegrist, 1996) played a lesser role in terms of the contents of personal work goals, it could be that other, possibly more stable dispositional traits (e.g., personality traits), have a stronger contribution on personal goal pursuit. This view has already received support in other studies outside the work arena (e.g., Little et al., 1992; Roberts et al., 2004).

A follow-up investigation should also take into account that participants are likely to have multiple personal work goals. It would be fruitful to consider the most important personal work goals in relation to the other work goals, since the other goals might be just as influential in terms of occupational well-being and career development. With more in-depth data on the range of the personal work goals of a participant, a person-centered approach (e.g., Laursen & Hoff, 2006; Magnusson, 1999; Marsh, Ludtke, Trautwein, & Morin, 2009) could be utilised to identify homogeneous groups of participants who share similar goal attributes or profiles. This approach could give a wider perspective on changes in personal work goals throughout an employee's career, such as have been observed in relation to personal goals during emerging adulthood over a ten-year follow-up period (Salmela-Aro et al., 2007). It could also be, that with a more gender-balanced sample differences between personal work goal profiles might emerge between the genders, since men and women could have different demands, for instance, in balancing home and work life (e.g., Duxbury & Higgins, 1991; McElwain, Korabik, & Rosin, 2005), as well as in their leadership role (e.g., Burke & Collins, 2001; Gardiner & Tiggemann, 1999). Further investigation should also seek to understand whether certain goal profiles lead to improved occupational well-being or whether a goal is chosen as a result of, for instance, increasing levels of stress. Previous research evidence has already shown that depressive symptomatology predicts focusing on many negative intrapersonal goals (Salmela-Aro & Nurmi, 1997a), but similar research has not been carried out in relation to personal work goals.

Taken together, more extensive personal goal research is called for to consider personal work goal profiles in conjunction with wider life goals. It has already been shown that a balance between different areas of life can be beneficial for well-being, whereas excessive focus on a single area, for instance on work, can have a detrimental impact on psychological well-being (Salmela-Aro & Nurmi, 2004). This may reflect a lack of focus on other areas of life, such as recreational or family-related activities, which could in turn facilitate recovery during leisure time (Salmela-Aro & Nurmi, 2004; Sonnentag & Zijlstra, 2006). The increasing flexibility of working hours – enabled for example by technology – has also made the distinction between work and home more ambiguous (Jones et al., 2006). Thus, personal work goals should be considered within the context of wider life goals in order to build a more comprehensive picture of the goal structures and profiles that promote health and occupational well-being.

5 CONCLUSIONS

This research reinforced the need to identify and acknowledge personal work goals, especially in regard to young managers in the early stages of their career. The practical implications of the research highlighted the effects of the psychosocial work environment on the contents of personal work goals: A rewarding work environment with a favourable reciprocity of effort invested and reward received appears to be instrumental in promoting goals that are beneficial to the organisation as well as to the occupational well-being and professional development of participants. In contrast, the participants reporting less favourable work environments had goals which reflected concerns regarding well-being or intentions to leave the organisation in conjunction with lower occupational well-being. That is, personal work goals should be taken into consideration when investigating relatively stable work-related moods such as burnout and work engagement. Changes in the most important personal work goals were also observed during the two-year follow-up period (2006–2008). A further practical viewpoint of this research suggests that particularly through longer term investment in good career opportunities, job security, and esteem-building, organisations can seek to support young managers' striving for further professional development and training as well as to promote commitment towards the organisation already in the early career stages.

YHTEENVETO

Henkilökohtaisten työtavoitteiden puitteet: yhteydet työoloihin ja työhyvinvointiin

Ihmisen hyvinvoinnin kannalta ei ole tärkeää pelkästään miksi hän tavoittelee jotakin elämässään, vaan myös se *mitä* hän tavoittelee (Sheldon, Ryan, Deci, & Kasser, 2004). Henkilökohtaiset tavoitteet heijastavat niin tulevaisuuteen suuntautuvia toiveita, unelmia, huolia ja aikomuksia kuin yksilön syvempiä arvoja ja motiivejakin (Little, 2007; Nurmi, Salmela-Aro, & Aunola, 2009). Henkilökohtaiset tavoitteet ovat myös herkkiä ympäristön muutoksille, sillä ihmiset sopeuttavat tavoitteitaan oman elämäntilanteensa haasteisiin ja mahdollisuuksiin. Väitöstutkimuksessani keskityin tarkastelemaan toistaiseksi hyvin vähän tutkittuja työhön ja työuraan liittyviä henkilökohtaisia tavoitteita. Erityisenä tarkastelun kohteenani oli selvittää työtavoitteiden kytköksiä yksilön psykososiaalisiin työolotekijöihin sekä työhyvinvointiin.

Väitöskirjani tutkimusaineisto perustui laajaan nuorille esimiehille kohdistettuun kyselytutkimukseen, jonka otos poimittiin Uuden Insinööriliiton ja Toimihenkilöunionin jäsenrekistereistä. Hyödynsin aineistosta tutkimuksen lähtötilannetta (v. 2006) sekä samoille henkilöille kohdistettua 2-vuotis-seurantatutkimusta (v. 2008). Lähtötilanteessa tutkimukseen osallistui 747 henkilöä (vastausprosentti 43,4 %). Kaikki tutkitut olivat korkeintaan 36-vuotiaita ja suurin osa heistä oli miehiä (85 %). Tutkituista 8,5 % edusti ylintä johtoa, 48,8 % keskijohtoa ja 42, 7 % työnjohtoa. Seurantakyselyyn osallistui 433 henkilöä (vastausprosentti 69,7 %). Väitöskirjani koostui kolmesta yhteen nivoutuvasta osatutkimuksesta. Kaksi ensimmäistä osatutkimusta perustui tutkimuksen lähtötilanteeseen ja kolmas seurantatutkimukseen.

Ensimmäisessä osatutkimuksessa selvitettiin nuorten esimiesten työtavoitteiden sisältöjä ja niiden yhteyttä työhyvinvointiin. Työhyvinvointia arvioitiin työuupumuksen ja työn imun kuvaajilla. Tutkittavat kuvasivat itse tärkeimmän senhetkisen työhön tai uraan liittyvän tavoitteensa. Työtavoitteet luokiteltiin niiden sisältöjen perusteella seitsemään luokkaan: 1) ammatillinen osaaminen (30,5 %), 2) eteneminen uralla (23,7 %), 3) työssä jaksaminen ja viihtyminen (15,2 %), 4) uusi työ tai yrittäjyys (13,7 %), 5) työn jatkuvuus (7,4 %), 6) organisaation menestyksekäs toiminta (5,6 %), 7) palkka (3,9 %). Tutkittavien työtavoitteet olivat heidän ikä- ja uravaiheelle tyypillisiä, sillä yli puolet (54,2 %) asetti tärkeimmäksi työtavoitteekseen oman uran luomisen (ammatillinen osaaminen ja eteneminen uralla). Näihin tavoitteisiin suuntautuneiden työhyvinvointi oli keskimääräisesti ottaen hyvää tasoa. Parhain työhyvinvointi (matala työuupumus ja korkein työn imu) oli kuitenkin niillä tutkituilla, jotka kuvasivat organisaation menestykselliseen toimintaan liittyviä tavoitteita. Työssä jaksamiseen ja viihtymiseen sekä uuteen työhön tai yrittäjyyteen liittyvät tavoitteet puolestaan kytkeytyivät hyvinvoinnin ongelmiin, sillä näitä tavoitteita kuvanneet kokivat vähäisintä työn imua ja voimakkainta työuupumusta. Edellä kuvatut tulokset olivat tilastollisesti merkitseviä senkin jälkeen kun tutkittujen

taustatekijät (esim. ikä, esimiestaso, sukupuoli) ja omat arvioinnit tavoitteista (esim. tavoitteen tärkeys, kuormittavuus) oli vakioitu.

Toisessa osatutkimuksessa tarkasteltiin tutkittavien henkilökohtaisia työtavoitteita Johannes Siegristin (1996) psykososiaalista stressiteoriaa vasten. Mallin mukaan stressin ja stressiperäisten sairauksien riski on suuri silloin kun yksilön työhön kohdistamat ponnistukset ovat epäsuhdassa hänen työstä saamiinsa palkkioihin nähden. Riski on erityisen suuri silloin kun ponnistusten ja palkkioiden epäsuhtaan liittyy yksilön ylisitoutuneisuus työhön. Osatutkimuksessa selvitettiin miten Siegristin (1996) mallin mukaiset työolotekijät (ponnistukset, palkkiot, ponnistusten ja palkkioiden epäsuhta) sekä ylisitoutuneisuus ovat yhteydessä tutkittujen henkilökohtaisiin työtavoitteisiin. Lisäksi tutkittiin työtavoitteiden välittävää (medioivaa) ja muuntavaa (moderoivaa) roolia työolotekijöiden ja työhyvinvoinnin (työuupumus, työn imu) välisissä yhteyksissä. Tulokset osoittivat, että työstä saadut palkkiot – kuten palkka, työn jatkuvuus, etenemismahdollisuudet ja työstä saatu arvostus – olivat yhteydessä tutkittujen asettamiin henkilökohtaisiin työtavoitteisiin. Organisaation menestykselliseen toimintaan liittyvien tavoitteiden taustalla oli hyviksi koetut palkkiot työssä. Sen sijaan palkkioiden vähyys oli yhteydessä uuteen työhön tai yrittäjyyteen liittyviin tavoitteisiin. Ponnistusten ja palkkioiden välinen epäsuhta oli voimakkainta tutkittavilla, joilla oli työssä jaksamiseen ja viihtymiseen tai uuteen työhön tai yrittäjyyteen liittyviä tavoitteita. Tutkittujen ylisitoutuneisuus oli työoloja vähäisemmässä roolissa henkilökohtaisissa työtavoitteissa. Tulokset osoittivat edelleen, että henkilökohtaiset työtavoitteet välittivät psykososiaalisten työolojen yhteyksiä työhyvinvointiin: työolot olivat yhteydessä siihen, millaisia henkilökohtaisia työtavoitteita tutkitut asettivat itselleen, mikä taas oli yhteydessä heidän työhyvinvointiinsa. Henkilökohtaisten työtavoitteiden muuntava rooli työolojen ja työhyvinvoinnin välisissä yhteyksissä oli sen sijaan vähäistä.

Kolmannessa osatutkimuksessa tarkasteltiin henkilökohtaisten työtavoitteiden ja psykososiaalisten työolojen (ponnistukset, palkkiot, ponnistusten ja palkkioiden epäsuhta) muutoksia sekä niiden keskinäisiä yhteyksiä kahden vuoden seuranta-ajalla. Tulokset osoittivat, että tutkittavien työtavoitteissa tapahtui paljon muutoksia. Uusia työtavoiteluokkia ei kuitenkaan ilmennyt ja luokkien koot pysyivät samansuuruisina. Poikkeuksena oli organisaation menestykselliseen toimintaan liittyvät tavoitteet, joiden määrä lähes kaksinkertaistui seuranta-aikana. Tulos heijastaa todennäköisesti tutkittavien uralla etenemistä sekä työkokemuksen karttumista. Tutkitut, jotka kokivat palkkioidensa lisääntyneen seuranta-aikana, suuntautuivat muita useammin ammatilliseen osaamiseen tai organisaation menestykselliseen toimintaan liittyviin tavoitteisiin. Sen sijaan palkkioiden vähentymistä raportoivat erityisesti ne tutkittavat, jotka suuntautuivat uuteen työhön tai yrittäjyyteen liittyviin tavoitteisiin seuranta-aikana. Työolojen parantumista (palkkioiden lisääntyminen, ponnistelui-den ja palkkioiden epäsuhdan väheneminen) olivat kokeneet erityisesti ne tutkittavat, jotka luopuivat uuteen työhön tai yrittäjyyteen liittyvistä tavoitteista. Toisaalta työolojen huonontumista olivat kokeneet ne tutkittavat, jotka luopuivat työn jatkuvuuteen liittyvistä tavoitteista.

Väitöstutkimukseni osoitti, että psykososiaalisten työolojen ja työhyvinvoinnin tutkimuksessa ja teorianmuodostuksessa tulee jatkossa huomioida myös tutkittujen henkilökohtaiset työtavoitteet. Tutkimukseni osoitti yhtäältä, että psykososiaaliset työolot muovaavat yksilön henkilökohtaisia työtavoitteita ja toisaalta, että työtavoitteiden sisällöt määrittävät merkittävästi yksilön työhyvinvointia. Koska tutkimukseni osoitti työtavoitteiden olevan lyhyellä aikavälillä muuntuvia, on tavoitteiden tutkimuksella myös huomattavaa käytännöllistä merkitystä työpaikkoja ja työelämää kehitettäessä. Avainasemassa ovat palkkioiden jatkuva kehittäminen ja seuranta organisaatioissa. Erityisesti kiinnittämällä huomiota etenemismahdollisuuksiin, työn jatkuvuuteen, arvostukseen ja oikeudenmukaiseen palkkaukseen, voidaan edistää sellaisia työtavoitteita, jotka ovat suotuisia työntekijöiden työssä kehittymiselle, organisaatioon sitoutumiselle ja työhyvinvoinnille. Tällaiset palkkiot ovat myös organisaation etu, sillä ne suuntaavat työntekijöiden henkilökohtaisia tavoitteita kohti organisaation menestymistä.

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ORIGINAL PUBLICATIONS

I

Young managers' drive to thrive: A personal work goal approach to burnout and work engagement

by

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Young managers' drive to thrive: A personal work goal approach to burnout and work engagement ☆

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ABSTRACT

This study approaches young managers' occupational well-being through their work-related goal pursuit. The main aim was to identify content categories of personal work goals and investigate their associations with background factors, goal appraisals, burnout, and work engagement. The questionnaire data consisted of 747 young Finnish managers (23–35 years; $M = 31$ years) who were mostly men (85.5%). Seven work-related content categories were found on the basis of qualitative data analysis: (1) competence goals (30.5%), (2) progression goals (23.7%), (3) well-being goals (15.2%), (4) job change goals (13.7%), (5) job security goals (7.4%), (6) organizational goals (5.6%), and (7) financial goals (3.9%). ANCOVA analyses, where goal appraisals and significant background factors were controlled for, indicated that organizational goals were related to low burnout and the highest level of work engagement, whereas well-being and job change goals were related to higher burnout and lower work engagement. The study shows that the contents of young managers' work-related goals can contribute to the understanding of individual differences in occupational well-being.

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1. Introduction

The investigation of personal work-related goals can bring a new perspective to research on occupational well-being since goals embody the individual's self-imposed intentions and demands within their own work environment (Pomaki & Maes, 2002; Pomaki, Maes, & ter Doest, 2004). The analyses of personal goals, in this study coined "personal work goals," incorporate both the employee and the context (Grant, Little, & Phillips, 2007). Proceeding from these assumptions, we examined the association between what young managers strive to achieve (i.e., the content of their personal work goal) and their occupational well-being (i.e., burnout and work engagement).

Research on work-related goal contents in occupational health literature has received little attention (Harris, Daniels, & Briner, 2003; Pomaki & Maes, 2002; Pomaki et al., 2004; Salmela-Aro & Nurmi, 2004) and, therefore, we aspired to make a contribution to the existing literature in three main ways. First, we derived the contents of personal work goals from responses to an open-ended question, which permitted a qualitative analysis of goal pursuit. Methodologically, this study compliments previous personal work goal research that has predominantly been based on goal appraisals or preset categories of goal contents. A multi-method analysis of goal pursuit yielded information about the contents of ideographic goals, and more broadly, about how different goal content categories are associated with occupational well-being. Second, we

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focused on managers, who are in a key position on the organizational hierarchy due to their role in setting the direction for their subordinates and in communicating across organizational levels. Third, our target group comprised young managers (35 years or under), who are still establishing their careers. These personal work- and career-related goals can give an indication of the factors guiding career development and career paths (Dik, Sargent, & Steger, 2008).

1.1. Research on personal goals

Informed by a social ecological model of adaptation and well-being (Little, 1972, 2000, 2007), our study approached individuals through their personal action within their own occupational context. In this type of research, *personal action construct* (PAC) is an umbrella term for units that describe persons' action intentions (e.g., Little, 2007). The breadth of studies in this area has been steadily increasing, and has included various closely related PAC units (for reviews see Austin & Vancouver, 1996; Karoly, 1993); for example, "personal projects" (Little, 1983), "personal strivings" (Emmons, 1986), and "life tasks" (Cantor, Norem, Niedenthal, Langston, & Brower, 1987). These types of action constructs are personally salient and can extend from lifelong goals to shorter term plans for achieving the expected outcomes (Little, 2007). Personal goals build a foundation for the initiation and regulation of behavior and emotions, as well as guide strategies to manage in a variety of contexts (Ford, 1992; Pomaki & Maes, 2002; Salmela-Aro & Nurmi, 2004).

The content or the appraisals of goals are two primary approaches for personal goal analyses. The *contents* of personal goals describe the person's orientation towards the future, uncovering the wants, wishes, concerns, and intentions of the person. According to Little and Gee (2007), goals can be, to a high degree of reliability, classified according to the orientation of personal goals. For instance, working adults' work goals were classified into nine goal content categories of success/higher position, further education/training/learning, doing a good and efficient job, job security, job satisfaction and positive job attitudes, social relationships at work, finances, openness to job-related changes, and other (Wiese & Salmela-Aro, 2008). In the context of career development, participants' ratings of career development strivings on the dimension of self-efficacy, outcome expectation, sense of calling, spiritual significance, and materialism were associated with conceptually similar measures such as religious commitment, intrinsic and extrinsic work motivation, providing evidence for the reliability and validity of self-set goals (see Dik et al., 2008).

The orientation of goals reflects the opportunities, demands, and restrictions of the current life stage that, to an extent, is tied to age-related developmental tasks (e.g., Salmela-Aro, 2001; Salmela-Aro, Aunola, & Nurmi, 2007). For example, as young adults get older, their personal goals begin leaning strongly towards work, family, and health, while goals related to education, friends, and travelling become less pronounced (Salmela-Aro, Aunola, et al., 2007). Goal *appraisals*, in turn, address the cognition and affect regarding the goal. Appraisals can reveal the meaning of the goal to the person, incorporating aspects such as the manageability of the goal, perceived support from other people, as well as positive and negative affect (Little & Gee, 2007). Goals can be evaluated on characteristics, such as relevance, importance, attainability, and emotional salience (Ford, 1992).

1.2. Personal goals and well-being

According to Little's (e.g., 2007) social ecological model of well-being, people tend to have some core goals that remain fairly permanent features in their lives. Well-being, then, depends on whether the internal (e.g., personality traits) and external (e.g., schooling opportunities) aspects are successfully orchestrated to sustain the personal goals that are most central to the person. A balance between different areas of life would be beneficial for well-being, whereas excessive focus on a single area can have a detrimental impact on psychological well-being (Salmela-Aro & Nurmi, 2004). For example, a susceptibility to lower health and well-being has been observed among employees with strong work orientation (Salmela-Aro & Nurmi, 2004). This may reflect a lack of focus on other areas of life, such as recreational or family-related activities, which could in turn facilitate recovery during leisure time (Salmela-Aro & Nurmi, 2004; Sonnentag & Zijlstra, 2006).

The contents of personal goals have demonstrated their significance in predicting psychological well-being. For example, focusing on developmentally appropriate goals predicted higher subjective well-being among young adults (Salmela-Aro & Nurmi, 1997a) and transition-related goals predicted a decrease in depressive symptoms among expectant women (Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2001). The personal goals that correspond with the opportunities, demands, and challenges of the specific phase relate to a higher level of well-being. Personal goals are also indicative of the extent to which transitions have been satisfactory and have enabled the attainment of new goals, for instance, achieving professional accreditation creates employment opportunities that might not been otherwise accessible (Salmela-Aro, Aunola, et al., 2007).

A proportion of participants in various populations have been found to focus on intrapersonal goals (i.e., self-related goals directed to developing self, personality, health, or life; e.g., Little & Gee, 2007; Salmela-Aro, Pennanen, & Nurmi, 2001). Intrapersonal goals can signal self-concerns, ruminating, and attachment to the past (e.g., Salmela-Aro et al., 2001). This may, however, be dependent on the appraisal of the intrapersonal goal; whether the goal is appraised positively as a development or negatively as self-concern (Salmela-Aro & Nurmi, 1997b). Focusing on many intrapersonal goals have been typically associated with lower well-being and a higher incidence symptoms of depression among employees (Salmela-Aro & Nurmi, 2004), young adults (Nurmi & Salmela-Aro, 2002), and university students (Salmela-Aro & Nurmi, 1997a).

Numerous research findings have indicated that goal appraisals play a part in psychological well-being: For example, the attainment of goals was connected to positive affect (Sheldon & Elliot, 2000) and appraising goals as important related to the

successful transition from vocational school to work (Nurmi, Salmela-Aro, & Koivisto, 2002). Within the occupational context, goal attainability, progress, and commitment were shown to contribute to changes in job satisfaction and organizational commitment (Maier & Brunstein, 2001) and the attainment of personally important work goals was linked to positive affect outcomes (Harris et al., 2003). Proceeding from these consistent findings, we investigated whether work goal contents have an independent contribution to occupational well-being after controlling for the effect of goal appraisals.

In the present study, the investigation of both negative and positive indicators of occupational well-being was operationalized through the concepts of burnout and work engagement. Burnout is considered to be a consequence of prolonged job stress and it is characterized most often by exhaustion, cynicism, and reduced professional efficacy (Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 2008). Exhaustion describes the core component of the syndrome, that is, the depletion of resources in doing one's work. The cynicism component reflects negative or distant attitude towards one's work in general, and it can be characterized as dysfunctional coping, in which employees develop cynicism about their work to distance themselves from it. Reduced professional efficacy represents a decline in one's feelings of competence and effectiveness in regard to both the social and non-social aspects of occupational accomplishments.

Work engagement describes positive affective-motivational experiences of vigor, dedication, and absorption at work (e.g., Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). Vigor is associated with high levels of energy, resilience, and personal investment at work; dedication refers to feelings of pride, meaningfulness, challenge and enthusiasm about the work; and, absorption describes being fully immersed in the work and losing the sense of time while working. Work engagement is not assumed to be a mere fleeting experience of fulfillment, but rather a more consistent state of mind that is not dependent on a single object, event, individual, or behavior (e.g., Schaufeli & Bakker, 2004). Job resources (e.g., autonomy, social support, and opportunities for professional development; e.g., Hakanen, Schaufeli, & Ahola, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007) and sufficient recovery and detaching from work outside work time (Sonnentag, 2003; Sonnentag, Mojza, Binnewies, & Scholl, 2008) can have a direct effect on work engagement. Furthermore, effective recovery can, through work engagement, mobilize employees to engage in proactive behavior and seek learning opportunities (Sonnentag, 2003).

Researchers have established a negative relationship (correlations typically ranging from −.30 to −.65) between work engagement and burnout (e.g., Schaufeli & Bakker, 2004; Schaufeli, Martínez, Marques Pinto, Salanova, & Bakker, 2002; Schaufeli, Taris, & van Rhenen, 2008). Work engagement has shown to have a positive relationship with self-rated health and work ability (Hakanen, Bakker, & Schaufeli, 2006), whereas burnout has been linked to depression (e.g., Ahola & Hakanen, 2007; Hakanen et al., 2008) and decreased life satisfaction (e.g., Burke & Greenglass, 1995). Work engagement and burnout have also been associated with job characteristics such as perceived job insecurity and employment contract. For example, when job insecurity was experienced by permanent staff, they reported lower job satisfaction and work engagement as well as higher exhaustion than their counterparts employed on a fixed-term basis (Mauno, Kinnunen, Mäkikangas, & Nätti, 2005). In addition to the associations with job security, one's gender (i.e., being female), higher managerial level, and working in private (vs. public) sector organizations have shown to be related to higher work engagement (Kinnunen, Feldt, & Mäkikangas, 2008; Mauno et al., 2005). In the present study, these background factors (gender, managerial level, employment sector, employment contract, and career instability, i.e., lay-offs and redundancies) were also taken into consideration due to their associations with burnout and work engagement.

1.3. Young managers' personal work goals and occupational well-being

In the present study, the focus was on the contents of self-set work goals of young managers, because the relationship between personal work goals, and particularly the contents of goals, and occupational well-being could benefit from further scientific inquiry (e.g., Pomaki & Maes, 2002; Pomaki et al., 2004; Salmela-Aro & Nurmi, 2004). The boundaries of work and home are becoming more ambiguous, for example, due to the increasing flexibility of working hours enabled by technology (Jones, Burke, & Westman, 2006). Therefore, personal work goals can also reflect, as well as embody, wider life goals.

We expected that young managers produce goals that reflect the vocational development stage relevant to this age group (i.e., 23–35 years). According to Super (1969, 1985, 1990), early adulthood (broadly 25–40 years) relates to "career establishment" incorporating periods of stabilization, consolidation, and advancement. The main development tasks related to these periods are suggested to involve six tasks: adapting to the culture of the organization, adequate performance of position-related duties, establishing good work habits and a positive attitude toward the job, maintaining good co-worker relations, and considering career choice and setting goals (see Crites, 1982; Dix & Savickas, 1995). The developmental tasks should be considered within the framework of "career adaptability" that refers not only to dealing with these developmental tasks, but also adjusting to changeable and unpredictable working environments (Savickas, 1997). According to previous research the goals that are in line with transition and development related intentions predict a higher level of well-being (e.g., Salmela-Aro & Nurmi, 1997a). Therefore, we expected that the personal work goals that reflect developmental tasks related to career establishment are associated with higher occupational well-being.

Young managers have fairly recently commenced their managerial career and are in a central role in leading their team towards corporate goals. To an extent, managers at all levels are involved in the general leadership task of influencing the behavior of others in order to reach organizational goals (Shackleton & Wale, 2000). The task of leadership could include interpersonal aspects (e.g., leading the members of the team), as well as department-level goals (e.g., achieving sales targets). The opportunities in the workplace may be crucial to the pursuit of personal work goals related to the leadership

task. Maier and Brunstein (2001) showed that when new employees are committed to their personal work goal and perceive the working environment as favorable for goal attainment, there was an increase in job satisfaction and organizational commitment. Within a managerial population, an enduring goal conflict was also found to hinder managers' ability to attain new goals in the workplace (Kehr, 2003). It could be that managers who state personal work goals that reflect the managerial leadership task experience more favorable conditions and less goal conflict in the workplace. In light of previous research, we expected that the personal work goals that reflect the managerial leadership task are associated with higher occupational well-being.

The prevalence of intrapersonal goals has been linked to a lower level of well-being (e.g., Salmela-Aro & Nurmi, 2004). Within the work context, however, employees' perception of the facilitation of personal growth goals and physical well-being goals at work was associated with a higher level of job satisfaction (ter Doest, Maes, Gebhardt, & Koelewijn, 2006). In less favorable circumstances, intrapersonal goals related to self-concern at work (e.g., managing work stress or reducing working hours) may be set when it is felt that the demands of the work overload the individual. Self-concern goals may also suggest a difficulty in, or a lack of opportunity for, detaching from work during off-work hours and engaging in activities that promote recovery. Insufficient recovery during leisure time has been linked to negative well-being outcomes in various studies (Sonnentag, 2003; Sonnentag, Binnewies, & Mojza, 2008; Sonnentag & Zijlstra, 2006). Therefore, we expected that the personal work goals that reflect self-concern at work are related to lower occupational well-being. Taken together, the following research questions were formulated:

1. What types of personal work goals do young managers have? We expected that the contents of young managers' personal work goals reflect development tasks related to career establishment, the managerial leadership task, and self-concern at work.
2. How are personal work goal categories associated with goal appraisals on the dimensions of importance, commitment, progress, effort, and strain? A lack of evidence regarding the effect of the contents of personal work goals on the goal appraisals among managers prevented us from stating clear expectations with respect to this research question.
3. How are personal work goal categories associated with burnout and work engagement after controlling for goal appraisals and significant background factors? We expected that the content categories that reflect the development tasks related to career establishment are associated with higher occupational well-being (low burnout and high work engagement). We also expected that the content category that reflects the managers' leadership task is associated with higher occupational well-being (low burnout and high work engagement). By contrast, we predicted that the content category that incorporates personal work goals relating to self-concern is associated with lower occupational well-being (high burnout and low work engagement).

2. Methods

2.1. Participants and procedure

The participants in this study consisted of 747 young managers (23–35 years) who responded to a questionnaire study in spring 2006. The sample consisted of all members of two Finnish national labor unions (the Union of Salaried Employees and the Union of Professional Engineers) whose professional title referred to management position and who were 35 years or younger. These criteria were met by 1904 union members. In Finland, a large majority of employees (71.2%) belong to a labor union organized on the basis of industry (Ahtiainen, 2001) and, therefore, this sample is relatively representative of the target group.

A total of 933 questionnaires out of 1904 were returned, of which 186 respondents were currently not in managerial position or in employment (e.g., maternity leave, studying, or unemployed over 3 months). Therefore, these respondents were omitted from the original sample, which yielded a response rate of 43.4%. The attrition analysis showed that the participants did not differ in terms of gender from nonrespondents ($n = 971$), $\chi^2(1) = 0.70$, *ns*. The data on the nonrespondents' age was only available for the members of the Union of Salaried Employees; these respondents ($n = 331$) did not differ from nonrespondents ($n = 379$) in age, $t(708) = 1.53$, *ns*.

The average age of the participants was 31 years (range 23–35, $SD = 3.2$). A large majority of participants were men (85.5%), and 8.5% of participants were in upper management, 48.8 in middle management, and 42.7% in lower management. The majority of participants were engineers (67.4%) and other participants were technicians (6.1%) or had other professional qualifications (24.6%). Only 1.9% of participants had no professional qualification. The main employment fields included technology (metal and electronics; 27.8%), the building industry (12.8%), forestry (8.8%), information technology (8.2%), and the chemical industry (6.8%). Of the participants, 35.6% were working in other-than-the-listed fields, such as consultancy, food industry, customer service, sales, and logistics. A large majority of the participants had a permanent employment contract (93.3%) as opposed to a fixed-term employment contract (6.7%). The private sector employed 95.4% of participants, whereas the rest (4.6%) worked in public sector organizations. Of the participants, 31.3% had experienced periods of unemployment or lay-offs since graduation. In addition, 48% of the participants had children (one or more child).

2.2. Measures

Personal work goals were investigated by posing an open-ended question, in response to which participants produced a personal goal that related to their work or career, "Write down your most important personal goal that relates to your work or career" (Salmela-Aro, 2002). On a couple of occasions where a participant had mentioned more than one goal, only the first goal was included in the analysis, thereby ensuring that each participant could be in only one content category. To achieve a reliable categorization, four coders participated in goal categorization: a professor in adult developmental psychology who is also an adjunct professor in occupational psychology with 13 years of research experience in managerial work and occupational well-being; two doctorate-level psychologists who are specializing in occupational psychology; and a masters-level psychologist. The participants' responses were approached using a generic and data-driven qualitative analysis that did not rely on preset categories (Namey, Guest, Thairu, & Johnson, 2008; Silverman, 2006).

The first step was for three of the coders to independently familiarize themselves with the data by open reading and considering the different themes emerging from participants' responses. After that the coders met and discussed the main themes of the qualitative data. As a conclusion of this discussion, the themes were grouped into seven thematic categories: learning, performance, progression, well-being, job security, changing jobs, and finance. In the second step, participants' responses were coded autonomously by the same three coders on the basis of these thematic categories. The three coders compared their coding and discussed those goals where there were disagreements on which would be the most suitable thematic category. During this step, the categories were specified further and the category relating to performance at work was divided into two sub-categories (i.e., personal performance goals and company performance goals). The goals relating to personal performance were added into the category that included learning goals and this formed one content category that was labeled as "competence goals" while the goals relating to the performance of the organization were labeled as "organizational goals".

The final step was to investigate the intercoder agreement of the categorizations. A fourth coder, who had previously not been involved in the process of forming the categories, applied the seven content categories to participants' responses. The goal categorization of the fourth coder was then compared with the categorization agreed on by the first three coders. The intercoder agreement between these content categorizations was 92%. The categorization agreed on by the first three coders has been utilized in the following data analyses. Since this categorization, the categories have also been presented to and validated by three external auditors who work for the labor unions as heads of their research departments. The external auditors were experts in both the research methods and the fields represented by the union members who were the target group of this study.

Goal appraisals were measured with 5 single items comprising importance ("How important is your goal?"; see Tuominen-Soini, Salmela-Aro, & Niemivirta, 2008), commitment ("How committed are you to your goal?"; see Tuominen-Soini et al., 2008), progress ("How far have you progressed in reaching this goal?"; see Salmela-Aro, Vuori, & Koivisto, 2007; Tuominen-Soini et al., 2008; Vasalampi, Salmela-Aro, & Nurmi, in press), effort ("How much time and effort have you invested in this goal?"; see Tuominen-Soini et al., 2008; Vasalampi et al., in press), and strain ("How strenuous or burdening is your goal?"; Salmela-Aro, Vuori, et al., 2007; Tuominen-Soini et al., 2008). Items were answered on a 5-point scale from 1 (*not at all*) to 5 (*extremely*).

Burnout was assessed with the Bergen Burnout Indicator 15 (BBI-15; Näätänen, Aro, Matthiesen, & Salmela-Aro, 2003). The scale has 15 items and includes three dimensions: emotional exhaustion (5 items; e.g., "I am snowed under with work"), cynicism (5 items; e.g., "I frequently question the value of my work"), and reduced professional efficacy (5 items; e.g., "My expectations to my job and to my performance have reduced"). Items were answered on a 6-point scale ranging from 1 (*completely disagree*) to 6 (*completely agree*). The Cronbach's alphas for the total sample were, for the total scale, .89, and for exhaustion, cynicism, and reduced professional efficacy, .81, .80, and .76, respectively. The construct validity of the scale has been tested in previous studies in Finland (see Näätänen et al., 2003). Emotional exhaustion ($r = .87$) and cynicism ($r = .88$) have a strong positive correlation with the corresponding dimensions of Maslach Burnout Inventory (MBI; Schaufeli, Leiter, Maslach, & Jackson, 1996). The third dimension of reduced professional efficacy showed a weaker correlation ($r = .30$) with the respective MBI dimension (see Näätänen et al., 2003).

Work engagement was measured by the Utrecht Engagement Scale with nine items (UWES-9; Schaufeli, Bakker, & Salanova, 2006). The scale has three dimensions, comprising vigor (3 items; e.g., "At my work, I feel bursting with energy"), dedication (3 items; e.g., "My job inspires me"), and absorption (3 items; e.g., "I am immersed in my work"). Responses were given on a 7-point scale from 1 (*never*) to 7 (*every day*). The construct validity of the short version (vs. the 17-item scale) of the UWES has proven to be better with this sample of young Finnish managers, as well as with other Finnish occupational groups (Seppälä et al., in press). The internal consistencies (Cronbach's alpha) for the total sample were, for the total scale, .91, and for vigor, dedication, and absorption, .81, .87, and .81, respectively.

The *background variables* included gender, managerial level (upper/middle/lower), employment contract (permanent/fixed-term), employment sector (private/public), career instability (yes/no periods of unemployment or lay-offs), and children (yes/no children).

2.3. Analyses

To examine the relationship between the content categories – identified through the qualitative data analysis of the participants' personal work goals – and the categorical background variables, we calculated the χ^2-tests. Correlations among the

background variables, burnout, and work engagement were calculated to identify significant covariates for Analyses of Covariance (ANCOVA). Differences in goal appraisals between the content categories were investigated by means of ANCOVA. In previous research, goal appraisals have been associated with well-being (e.g., Maier & Brunstein, 2001). Therefore, goal appraisals (importance, commitment, progress, effort, and strain) were used as covariates, in addition to significant background variables, when calculating ANCOVAs for burnout and work engagement.

3. Results

3.1. Personal work goals categories

The following seven content categories were found (listed in a descending order of size): 1. *competence* goals; 2. *progression* goals; 3. *well-being* goals; 4. *job change* goals; 5. *job security* goals; 6. *organizational* goals; and 7. *financial* goals (see Table 1). As expected, the personal work goals of young managers reflected career establishment, particularly those goals relating to competence and progression. Together these two categories comprised over half of the participants (54.2%). We also found a small category with just over 5% of participants whose goals reflected the leadership task of managers (organizational goals). Self-concern goals, on the other hand, were less evident as an individual category; instead, self-concerns were incorporated with goals that were directed towards health and job satisfaction (well-being goals). This category included approximately 15% of participants. As opposed to the intrapersonal goals that signaled self-concern, the intrapersonal goals directed toward developing one's own skills and abilities pertaining to the profession were considered as developing professional competence (i.e., competence goals). We found three further goal content categories – job change (13.7%), job security

Table 1
The personal work goal categories, descriptions of contents, and examples of goals named by the young managers (total $n = 685$).

Personal work goal categories	% (n)	Descriptions of contents	Examples of personal work goals
1. Competence	30.5 (209)	Starting or finishing training, job performance, and professional development	"Develop myself in the job and deepen my knowledge within my own field"; "Finish training"; and "To develop to be a skillful manager, who recognizes the needs of subordinates and can support them in a right way and enough"
2. Progression	23.7 (162)	Advancing to a higher position and promotion	"Progress in the hierarchy to the next level"; "Progressing to a more challenging duties"; and "To become a Managing Director in the company"
3. Well-being	15.2 (104)	Health, work satisfaction, and work-life balance	"Learning to control work-load in such a way that does not disturb family life to an excess"; "Learning to be without stressing"; and "Working in a good-spirited working climate"
4. Job change	13.7 (94)	A change in career either by changing organization, position or professional field, or by setting up a company	"To find a more interesting profession"; "At some point to move to an independent specialist or designing consultancy – away from managerial duties"; and "To become an entrepreneur"
5. Job security	7.4 (51)	Receiving a permanent contract and continuation of employment	"Maintain current employment"; "Getting a stable status and sustaining it"; and "To be able to be here"
6. Organization	5.6 (38)	The success or performance of the organization or department	"Stabilizing the company business"; "To get my team to function even better towards achieving jointly agreed goals"; and "To modernize and increase productivity"
7. Finance	3.9 (27)	Receiving regular salary and pay rise	"Pay rise"; "To get better pay (pay to correspond performance)"; and "More money"

Table 2
Differences in significant background variables (%) between the personal work goal categories (total $n = 685$).

Background variables	1. Competence ($n = 209$)	2. Progression ($n = 162$)	3. Well-being ($n = 104$)	4. Job change ($n = 94$)	5. Job security ($n = 51$)	6. Organization ($n = 38$)	7. Finance ($n = 27$)	χ^2-test
Managerial level								
Upper	8.2	6.5	9.7	6.6	4.0	26.3[T]	11.1	
Middle	53.6	51.0	40.8[AT]	61.5[T]	38.0	47.4	29.6[AT]	36.78[***]
Lower	38.2	42.5	49.5	31.9[AT]	58.0[T]	26.3[AT]	59.3	
Employment contract								
Permanent	94.7	95.7	93.3	90.4	70.6[AT]	97.4	100	44.38[***]
fixed-term	5.3	4.3	6.7	9.6	29.4[T]	2.6	0	
Career instability								
No unemployment	70.3	72.7	61.5	74.5	39.2[AT]	81.6	66.7	28.71[***]
Unemployment	29.7	27.3	38.5	25.5	60.8[T]	18.4	33.3	

Note: [***]$p < .001$; T = typical; AT = atypical, adjusted residual > |2|.

Table 3
Correlation coefficients for study variables (n = 662–685).

Variables	1[1]	2[1]	3[1]	4[1]	5[1]	6[1]	7[2]	8[2]	9[2]	10[2]	11[2]	12[2]	13[2]	14[2]	15[2]	16[2]	17[2]	18[2]
1. Gender (1 = male 2 = female)																		
2. Managerial level (1 = upper level, 3 = lower level)	−.01																	
3. Organization (1 = private, 2 = public)	.06	−.02																
4. Employment contract (1 = permanent, 2 = fixed-term)	.06	.18***	.07															
5. Career instability (1 = no, 2 = yes)	−.02	.15***	.05	.14**														
6. Children (1 = no, 2 = yes)	−.06	−.12***	.05	−.13***	.05													
7. Goal importance	.10**	−.02	.01	.07	.06	−.01												
8. Goal commitment	.04	−.06	−.02	.05	.00	.03	.51***											
9. Goal progress	−.07	−.12**	−.03	.03	−.02	.08*	.19***	.46***										
10. Goal effort	−.09*	−.12**	−.03	.04	−.05	.08*	.36***	.52***	.50***									
11. Goal strain	−.02	−.15***	.06	−.05	−.06	.07	.17***	.20***	.11**	.36***								
12. Burnout	.03	−.08*	.02	−.12**	−.04	.02	.01	−.13***	−.24***	−.03	.20***							
13. Emotional exhaustion	.02	−.14***	.04	−.14***	−.09*	.04	.04	−.02	−.11**	.08*	.26***	.82***						
14. Cynicism	−.03	−.03	.04	−.09*	.01	.00	−.04	−.20***	.27***	−.10**	.09*	.85***	.48***					
15. Reduced professional efficacy	.06	−.03	−.01	−.07	.00	.00	.02	−.13***	−.26***	−.07	.15***	.89***	.55***	.75***				
16. Work engagement	.09	−.07	.03	.00	−.11**	.07	.07	.23***	.30***	.19***	.01	−.36***	−.07	−.49***	−.41***			
17. Vigor	.07	−.01	.00	.00	−.09*	.06	.04	.20***	.29***	.12**	−.07	−.45***	−.21***	−.52***	−.46***	.87***		
18. Dedication	.03	−.04	.04	.01	−.09*	.07	.09*	.25***	.33***	.20***	.00	−.42***	−.11**	−.54***	−.48***	.93***	.79***	
19. Absorption	.13***	−.11**	.03	.00	−.09*	.03	.05	.15***	.18***	.17***	.07	−.11**	.10**	−.25***	−.17***	.85***	.55***	.67***

Note: *p < .05; **p < .01; ***p < .001; [1]Spearman correlation; [2] Pearson correlation.

(7.4%), and financial goals (3.9%) – that were directed towards evaluating career options and incentives for working for the organization. These seven content categories bore resemblance to the work goal categories identified by Wiese and Salmela-Aro (2008), which also related to the goal taxonomy by Ford and Nichols (1987).

In addition to the aforementioned categories, there were 58 participants who did not respond to the question; two participants who expressed satisfaction with their current state (e.g., "I have reached the goal I have set myself thus far"); and two participants who did not mention a work- or career-related goal (e.g., "Paternity leave"). The further data analyses were restricted only to the participants who had produced personal work goals (n = 685).

3.2. Background variables in the personal work goal categories

The background variables that were significantly related to the content categories according to the χ^2-tests are presented in Table 2. There were significant differences in the distributions of management levels in the content categories. Upper-level managers were overrepresented in the category including organizational goals. Middle-level managers were overrepresented in the job change category, and underrepresented in the categories including well-being and financial goals. Lower-level managers, in turn, were overrepresented in the job security category and underrepresented in the categories including job change and organizational goals.

Employment contract (i.e., permanent/fixed-term) and career instability (i.e., yes/no unemployment or lay-offs) characterized the job security category. Participants on permanent employment contracts were underrepresented and participants on fixed-term employment contracts were overrepresented in the job security category. Similarly, participants with a stable career were underrepresented, and those with career instability were overrepresented in the job security category. There were no significant differences between the content categories in terms of background variables of gender, $\chi^2(6)$ = 9.78, *ns*; employment sector (private/public), $\chi^2(6)$ = 4.70, *ns*; or children (yes/no children), $\chi^2(6)$ = 4.45, *ns*. The correlations among the background variables, burnout, and work engagement are presented in Table 3. In addition to the significant background variables identified with the χ^2-test, gender was found to have a significant correlation with work engagement; therefore, gender was controlled for in the ANCOVA analyses alongside managerial level, employment contract, and career instability.

3.3. Goal appraisals in the personal work goal categories

The results from ANCOVA, shown in Table 4, indicated that the content of personal work goals had a significant main effect on goal appraisals (importance, commitment, progress, effort, and strain). The Bonferroni comparison revealed that progression goals were rated as significantly less important than some of the other goals (competence, well-being, job security, and organizational goals). Organizational goals were associated with higher goal commitment than progression and job change goals. Job change and well-being goals were rated lower in goal progress than some of the other goals (competence, job security, and organizational goals). In addition, job change goals were rated lower in goal progress than progression goals. In terms of effort invested into goals, job change goals were rated significantly lower than competence and organizational goals. Furthermore, competence goals were rated significantly higher in effort than progression goals. Job change goals were considered as significantly less strenuous than competence, job security, and organizational goals.

3.4. Burnout and work engagement in the personal work goal categories

The content categories had a significant main effect on burnout and its dimensions of exhaustion, cynicism, and reduced professional efficacy as indicated by ANCOVAs (goal appraisals, gender, managerial level, employment contract, and career instability controlled for) shown in Table 5. Similarly, the content categories had a significant main effect on the total work engagement scale, as well as on its dimensions of vigor, dedication, and absorption.

Our expectation regarding higher occupational well-being in the categories that reflect career establishment received partial support as competence and progression goals were related to relatively low burnout and high work engagement. In addition, job security and financial goals were associated with a low level of burnout, but with an average level of work engagement. Participants who named organizational goals rated their burnout low and their work engagement highest, in line with our expectation regarding high occupational well-being in the category that reflects the managerial leadership task.

The category incorporating goals reflecting self-concern was expected to relate to a low level of occupational well-being. This received some support since the well-being goals reflect, to a certain extent, the participants' concerns for their job satisfaction and contentment, and furthermore, this category was associated with high burnout and low work engagement, particularly in regard to the dimensions of vigor and dedication. This category was similar to the category including job change goals, which was connected to high burnout and the lowest level of work engagement.

As a final step, the 62 participants – those who did not produce goals, named an unrelated goal, or expressed satisfaction with their current state (hf. the *no work goals* category) – were compared to the other participants. The participants in the *no work goals* category (M = 4.99, SD = 1.29) had significantly lower work engagement than the other participants (M = 5.45, SD = 1.02), $t(742)$ = 2.65, p = .01, but they did not differ from the other participants in burnout, $t(740)$ = −.55, *ns*.

Table 4
The results of ANCOVA analyses for goal appraisals in the personal work goal categories (gender, managerial level, employment contract, and career instability controlled for).

Goal appraisal (range 1–5)	1. Competence ($n = 209$)	2. Progression ($n = 162$)	3. Well-being ($n = 104$)	4. Job change ($n = 94$)	5. Job security ($n = 51$)	6. Organization ($n = 38$)	7. Finance ($n = 27$)	Total ($n = 685$)	F-test	Pairwise comparisons[3]	Partial η^2
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)			
Importance	4.32 (0.60)	4.08 (0.71)	4.48 (0.64)	4.23 (0.66)	4.57 (0.77)	4.57 (0.64)	4.22 (0.85)	4.31 (0.68)	6.43***	2 < 1, 3, 5, 6	0.06
Commitment	4.13 (0.70)	4.01 (0.76)	4.04 (0.78)	3.97 (0.83)	4.35 (0.79)	4.48 (0.69)	3.98 (0.77)	4.10 (0.76)	3.43***	6 > 2, 4	0.03
Progress	3.56 (0.83)	3.35 (0.96)	3.01 (0.86)	2.94 (1.01)	3.57 (0.77)	3.58 (0.85)	3.22 (1.17)	3.33 (0.93)	8.30***	3, 4 < 1, 5, 6 / 4 < 2	0.07
Effort	3.53 (0.93)	3.21 (1.00)	3.28 (0.95)	3.09 (0.94)	3.62 (1.05)	3.74 (0.96)	3.40 (1.13)	3.37 (0.99)	4.55***	4 < 1,6 / 2 < 1	0.04
Strain	3.38 (0.98)	3.10 (1.07)	3.03 (1.04)	2.78 (1.07)	3.38 (0.93)	3.52 (0.97)	2.83 (1.02)	3.17 (1.04)	5.73***	4 < 1, 5, 6	0.05

Note: ***$p < .001$; [a]Bonferroni comparisons.

Table 5
The results of ANCOVA analyses for burnout and work engagement (goal appraisals, gender, managerial level, employment contract, and career instability controlled for).

Well-being variables (range)	1. Competence ($n = 209$)	2. Progression ($n = 162$)	3. Well-being ($n = 104$)	4. Job change ($n = 94$)	5. Job security ($n = 51$)	6. Organization ($n = 38$)	7. Finance ($n = 27$)	Total ($n = 685$)	F-test	Pairwise comparison[3]	Partial η^2
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)			
Burnout (1–6)	2.53 (0.69)	2.60 (0.74)	2.96 (0.80)	2.92 (0.92)	2.47 (0.65)	2.44 (0.74)	2.61 (0.78)	2.66 (0.78)	6.78***	3, 4 > 1, 2, 5, 6	0.06
Exhaustion	2.94 (0.93)	2.98 (0.99)	3.41 (1.08)	3.06 (1.08)	2.75 (0.95)	2.78 (1.06)	2.90 (1.07)	3.01 (1.01)	3.93***	3 > 1, 2, 5, 6	0.04
Cynicism	2.16 (0.72)	2.27 (0.79)	2.57 (0.88)	2.70 (0.98)	2.20 (0.57)	2.06 (0.70)	2.55 (0.90)	2.33 (0.82)	7.39***	3, 4 > 1, 6 / 4 > 2, 5	0.07
Reduced professional Efficacy	2.49 (0.83)	2.54 (0.86)	2.91 (0.92)	3.00 (1.02)	2.46 (0.79)	2.48 (0.83)	2.38 (0.89)	2.63 (0.90)	6.27***	3, 4 > 1, 2 / 4 > 5, 6, 7	0.06
Work engagement (1–7)	5.63 (0.95)	5.54 (0.90)	5.28 (1.03)	5.00 (1.24)	5.42 (0.93)	5.79 (0.84)	5.39 (1.01)	5.45 (1.02)	5.56***	4 < 1, 2, 6	0.05
Vigor	5.68 (0.99)	5.75 (0.90)	5.41 (1.09)	5.11 (1.33)	5.60 (0.93)	6.00 (0.75)	5.78 (0.95)	5.59 (1.05)	6.02***	3,4 < 6 / 4 < 1,2,7	0.05
Dedication	5.84 (1.02)	5.67 (1.08)	5.41 (1.19)	4.96 (1.45)	5.57 (0.95)	5.86 (0.90)	5.57 (1.17)	5.58 (1.17)	7.31***	3,4 < 1 / 4 < 2,6	0.06
Absorption	5.36 (1.13)	5.18 (1.23)	5.00 (1.32)	4.94 (1.31)	5.09 (1.28)	5.51 (1.07)	4.84 (1.53)	5.18 (1.25)	2.36*		0.02

Note: *$p < .05$; ***$p < .001$; [a]Bonferroni comparisons.

4. Discussion

Young managers' personal work goals at their career establishment stage provided a novel approach for investigating occupational well-being viewed through a social ecological model of well-being (e.g., Little, 2000, 2007). Personal work goals were classified into seven categories on the basis of goal contents (i.e., goals oriented towards competence, progression, well-being, job change, job security, organization, or finance). In the present study, the content categories were associated with burnout and work engagement, and most importantly, the categories explained independent variance in burnout and work engagement beyond the goal appraisals and managers' background factors. Previous studies have shown consistent findings regarding the links between employee well-being and work goal appraisals (e.g., Maier & Brunstein, 2001; Pomaki et al., 2004). Nevertheless, the relationship between the content of personal work goals and occupational well-being has remained largely unexplored (Pomaki et al., 2004).

In spite of the small size of the category, the strongest beneficial associations with occupational well-being were found among managers whose personal work goals reflected the leadership task of managers (organizational goals; *n* = 38; 5.6%). These managers experienced a low level of burnout and the highest level of work engagement. Organizational goals were mentioned by managers who accommodated wider departmental or organizational goals as their own personal work goal. These goals were also more likely to be set by upper-level managers. It could be that these goals are quite specific for the management population since these types of organizational goals did not emerge as an individual category in the study by Wiese and Salmela-Aro (2008) with a range of professionals. Organizational goals also showed prominent links to goal appraisals. This category's managers placed importance upon, were committed to, made progress towards, and put time and effort into reaching their goals. On the other hand, this group also rated their goals as most strenuous.

In light of previous research, this group of managers may have tackled the previous vocational development tasks successfully (e.g., performance and advancement) and moved to making career choices and plans, including combining personal and company goals (see Dix & Savickas, 1995). Previous research has also indicated that job involvement has a strong link with positive job attitudes, such as job satisfaction (for a review see Brown, 1996). Moreover, goal congruence can promote health and psychological well-being (e.g., Sheldon & Kasser, 1995), and among managers, goal conflict was found to hinder the attainment of new goals (Kehr, 2003). Therefore, it may be that managers with organizational goals have more opportunities in the workplace sustaining focus on their core leadership task.

The vocational development stage of career establishment was manifested particularly in the goals that related to competence (*n* = 209; 30.5%) and progression (*n* = 162; 23.7%). Over a half of the young managers named goals relating to these career establishment tasks that, additionally, had positive associations with occupational well-being. Competence goals formed the largest category that included personal work goals orientated towards learning, job performance, and other self-development goals related to technical and relational skills. The competence category is also in line with previous findings by Wiese and Salmela-Aro (2008) who found that about a third of working adults named goals related to learning and job performance goals. Furthermore, ter Doest et al. (2006) showed that facilitation of personal growth goals – such as learning and development – in the workplace had a strong relationship with job satisfaction among the employees who considered these goals as fairly important. Goals related to progression, in turn, were orientated towards promotion and moving upwards on the career ladder. Interestingly, when compared to managers in other categories, these managers experienced their goals as less important and were less committed to them.

These findings from the two largest content categories are in accord with previous research that has indicated that developmentally appropriate personal goals facilitate positive well-being outcomes (e.g., Nurmi et al., 2002; Salmela-Aro & Nurmi, 1997a) and these categories closely resemble the developmental tasks of position performance and advancement (Dix & Savickas, 1995). It is possible that these goals reflect a situation where managers have adapted to the culture of the organization and are now striving forwards in their career. On the basis of the social ecological model of well-being (e.g., Little, 2000, 2007), the three categories comprising organizational, competence, and progression goals may represent the managers who, on average, are navigating through the demands of their work environment that matches their personal characteristics and expectations.

Goals orientated towards job security (*n* = 51; 7.4%) and finances (*n* = 27; 3.9%) can be timely to this age group of managers, but these goals also signal a certain level of uncertainty about the continuity or financial rewards of their employment. These goals were related to moderate occupational well-being with relatively low burnout (particularly in relation to reduced professional efficacy for financial goals) and average work engagement. These results parallel the findings from a study where employees who viewed their work mainly as a job providing financial means rather than giving enjoyment, reported significantly lower job and life satisfaction than employees who viewed their work as a calling (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997).

Managers with job security goals were more likely to be from lower management, on a fixed-term employment contract, and have experienced career instability (i.e., unemployment and/or lay-offs) since graduation than managers in the other categories. These background factors may partly explain their goals towards securing future employment. There exists contradictory evidence regarding the job attitudes and occupational well-being of temporary workers (for reviews see De Cuyper et al., 2008; Virtanen et al., 2005). Some research has even indicated that temporary employees have better well-being than permanent employees especially under uncertain employment conditions (e.g., a threat of redundancy; Mauno et al., 2005). Job security goals may echo the hopes and concerns of young managers who are at the beginning of their career

relatively well, especially when taking into consideration the trend towards an increased flexibility within the employment relationship (Parent-Thirion, Macías, Hurley, & Vermeylen, 2007).

Due to the small size of the financial goals category, less statistically significant differences in comparison with the other categories emerged. We additionally analyzed whether there were actual differences in wages between the managers in this category and other managers. However, our analysis indicated no significant differences; therefore, it does not seem that these goals have arisen due to lower levels of salaries. It could be that the young managers in this category perceived an imbalance between their actual pay and what would be a fair level of pay for their contributions.

Personal work goals relating to well-being (*n* = 104; 15.2%) or changing jobs (*n* = 94; 13.7%) were associated with a lower level of occupational well-being than other goal orientations. Well-being goals related to satisfaction or general well-being at work, for example, managing stress, moving away from shift work, or reducing overtime hours. These managers had the highest burnout, with particularly high scores on exhaustion, as well as low levels of vigor and dedication. On average, the managers with well-being goals felt that they had made some progress towards their goal, but significantly less than those in some of the other categories.

Job change goals referred to moving to another job, starting a business, or even changing profession. In this study, these goals were represented by a larger percentage of participants than reported in the previous study (4.9%) by Wiese and Salmela-Aro (2008). This could be due to the age of the managers, since establishing one's career may involve also reconsidering career choices and making new plans (Dix & Savickas, 1995). However, these goals were linked with a lower level of occupational well-being and overall, this category's managers had a high level of burnout and the lowest level of work engagement. Compared to other participants, on average, the managers in this category felt less committed to their goal, made the least progress toward their goal, and reported investing the least amount of time and effort in pursuing their goal. However, job change goals were also rated as less strenuous than other goals.

Well-being and job change goals convey concerns of managers regarding their current situation, and the lower level of occupational well-being of the managers naming well-being or job change goals could be due to various factors. Firstly, goals related to well-being and job change may be the types of goals that indicate a potential conflict between work goals, other life goals, and organizational goals, which in previous research has been linked to reduced psychological well-being (e.g., Emmons & King, 1988; Karoly & Ruehlman, 1996; Kehr, 2003; Mitchell & Silver, 1990). For example, a number of managers in the well-being category mentioned goals relating to improving work-life balance or reducing work spill-over to other areas of life. Adverse effects on well-being have also been noted among employees whose work- and self-related goals dominate their orientation in life (Salmela-Aro & Nurmi, 2004) and who view work-related activities as infringing on their leisure time (e.g., Sonnentag & Zijlstra, 2006).

In the social ecological model of well-being (Little, 2000, 2007), the goals related to job change and well-being could be examples of the challenges of balancing the personal and contextual features, as well as finding a suitable course of action in order to achieve some of the core goals in life. These two categories included young managers who may feel dissatisfied with their work or working environment, and therefore, are attempting to resolve the situation by adapting to the demands of the work environment (well-being goals) or by searching for other alternatives to their current working environment (job change goals). From the perspective of career adaptability (e.g., Dix & Savickas, 1995; Savickas, 1997), these goals exemplify how young managers are purposefully attempting to adapt their career to the different roles and contexts in their life. However, their work environment may not be conducive to resolving some of the core development tasks of this age group.

4.1. Study strengths and limitations, and suggestions for future studies

The strength of the study was that qualitative and quantitative data analyses were employed to investigate personal work goal pursuit with a large sample of young managers. In combining these levels of analyses, a person-oriented approach can be extended to study differences between these identified "groupings" (Dik et al., 2008; Salmela-Aro & Nurmi, 2004). In this study, we ventured into a reasonably novel area of occupational well-being research; personal work goal research from the perspective of Little's (2000, 2007) social ecological model. Finally, the target group comprised young managers, and thus, this study generated new information about the goal pursuit and well-being of managers who are at the establishment stage of their career.

There were also some limitations in the study that should be considered when making inferences on the basis of these findings. Because we had a specific target population, this will also impact the extent to which these findings can be generalized in regard to other employees in other countries. In addition to the generalizability, goal appraisals were based on single item measures and thus more comprehensive measures of goal appraisals would be required in future studies. The questionnaire data present well-known limitations associated with self-report data. Additional objective outcome measures may be required in future studies to establish the health and well-being of managers, thus avoiding the pitfalls of self-report data and same-source bias. The main limitation of the cross-sectional design should be addressed in the future by investigating whether a certain type of goal leads to improved occupational well-being or whether a goal is chosen as a result of, for instance, increasing levels of stress. For example, research evidence has already shown that depressive symptomatology predicts negative intrapersonal goals (e.g., Salmela-Aro & Nurmi, 1997b). Longitudinal research design would also shed light on the effects of goal achievement on burnout and work engagement.

It would be an interesting avenue for future research to investigate goal facilitation at work, particularly with respect to organizational, competence, and progression goals, which may be supported by more favorable working conditions, such as having a balance between rewards received and efforts invested in the workplace (Siegrist et al., 2004). In terms of some of the other categories (e.g., well-being and job change goals), goal conflict would be an essential addition to the analysis of goal appraisals. In this study, the participants were asked to name only their most important personal work goal. It is possible that other personal work and life goals also influence occupational well-being. A person may be experiencing conflict within his or her own goal structure (e.g., completing a project within a tight deadline and spending more time with the family). On the other hand, it could be that some of these work goals are interwoven together, that is, by achieving professional competence, the managers may be aiming to get a promotion and thus increase their salary. Moreover, investigating the moderating and mediating role of goal content between work factors and occupational well-being would be a valuable step forward establishing a more comprehensive picture of the goal processes that promote occupational well-being and facilitate recovery during off-work time.

4.2. Conclusions

This study reinforces the need to take personal work goal processes into account when considering relatively stable work-related moods such as burnout and work engagement. Furthermore, the significant differences in the levels of burnout and work engagement in the personal work goal categories remained even after controlling for goal appraisals, which previous research has linked to well-being within the work context. This confirms that research on burnout and work engagement – and more broadly occupational well-being – can benefit from further understanding of what goals managers strive to achieve and how these goals are appraised. Establishing associations between the goal pursuit of young managers and their well-being can help organizations to facilitate goals that are of benefit for the well-being of managers, while being in line with the aims of the organization.

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II

The role of goal pursuit in the interaction between psychosocial work environment and occupational well-being

by

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The role of goal pursuit in the interaction between psychosocial work environment and occupational well-being ☆

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ABSTRACT

The relation of the core components of the Effort–Reward Imbalance model (ERI; Siegrist, 1996) to goal pursuit was investigated. Goal pursuit was studied through categories of goal contents – competency, progression, well-being, job change, job security, organization, finance, or no work goal – based on the personal work goals of managers (Hyvönen, Feldt, Salmela-Aro, Kinnunen, & Mäkikangas, 2009). The study focused on the contribution of the ERI components (effort, reward, effort–reward imbalance, OVC) to goal contents, as well as on the mediating and moderating effects of goal contents between the ERI components and occupational well-being (burnout, work engagement) among young Finnish managers ($N = 747$, age range 23–35 years). First, multinomial regressions showed that effort, reward, and effort–reward imbalance contributed to the membership of the goal categories. Secondly, hierarchical GLM (General Linear Model) indicated that the goal categories mediated the relationship between the ERI components and occupational well-being. Effort, reward, and effort–reward imbalance had an indirect effect through goal categories on burnout and work engagement, but overcommitment only on burnout. In addition, the goal categories moderated the relationship between reward and work engagement. Taken together, psychosocial work environment contributes to the contents of personal work goals, which also function as mediators, particularly between the work environment and occupational well-being.

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1. Introduction

In spite of research advances with respect to the relation between psychosocial work environment and occupational health and well-being (for reviews, see Cooper, Dewe, & O'Driscoll, 2001; Kahn & Byosiere, 1992; Stansfeld & Candy, 2006; Tsutsumi & Kawakami, 2004; Van Vegchel, de Jonge, Bosma, & Schaufeli, 2005), the question of the role of personal work goals has so far remained open in this process (Hyvönen et al., 2009; Pomaki & Maes, 2002; Pomaki, Maes, & ter Does, 2004). Previous research suggests, however, that the effect of personal goal processes on health and well-being at work should not be overlooked, since both goal contents (Hyvönen et al., 2009; Salmela-Aro & Nurmi, 2004) and goal appraisals (e.g., Harris, Daniels, & Briner, 2003; Maier & Brunstein, 2001; Pomaki et al., 2004) have shown to account for individual differences in occupational well-being. It is possible, therefore, that psychosocial work environment plays a strategic role behind goal pursuit and also contributes to the orientation of personal work goals as well as to occupational well-being.

This study aims to clarify the role of work goals in the traditional psychosocial work environment–occupational well-being process. The study adopts a theoretical framework from Little's social ecological model of well-being (e.g., Little, 2000, 2007), which is now applied and tested within the occupational domain. Little (2007) theorized that well-being is the product of the negotiation of personal and contextual features, which can be stable or dynamic in nature, in order to pursue the core projects in life. Psychosocial work environment and personal features are approached through a reasonably new theory – the Effort–Reward Imbalance model (ERI; Siegrist, 1996) – comprising effort, reward, and effort–reward imbalance (contextual features) and overcommitment (personal feature). Firstly, we look at the contribution of the ERI components to the contents of personal work goals. Secondly, we investigate the mediating and moderating role of goal contents between the ERI components and occupational well-being (burnout, work engagement) among young Finnish managers who are under the age of 36.

1.1. The Effort–Reward Imbalance (ERI) model and well-being

Especially for managers, work demands are more psychological than physical challenges in the modern work environment (Kinnunen, Feldt, & Mäkikangas, 2008). These psychosocial demands of the workplace can be construed through the ERI model (e.g., Siegrist, 1996; Siegrist, Siegrist, & Weber, 1986; Siegrist et al., 2004). The model is based on a social exchange theory according to which the costs and gains of social exchanges direct our behavior with others. In the workplace, this means that employees invest effort in their work and, in turn, expect rewards. Efforts represent job demands and responsibilities on the part of the employee (e.g., interruptions, overtime, obligations imposed by the employer), whereas rewards include esteem, job security, and career opportunities. Therefore, this model incorporates distal labor market conditions in addition to the immediate job conditions (Siegrist, 1996).

Effort–reward imbalance describes the perceived mismatch of spent efforts and received rewards in the workplace (e.g., Peter & Siegrist, 1997; Siegrist, 1996; Siegrist et al., 2004). A situation where an employee is investing overtime hours into completing projects with tight deadlines, but has poor career prospects and fears of being laid off, would be an example of a harmful imbalance. An extended period of harmful imbalance can cause strain reactions that may contribute to various physical and psychological illnesses (for reviews, see Stansfeld & Candy, 2006; Tsutsumi & Kawakami, 2004; van Vegchel et al., 2005), such as increasing risks of cardiovascular mortality (e.g., Kivimäki et al., 2002), poorer general mental health (e.g., Stansfeld, Bosma, Hemingway, & Marmot, 1998), and psychological distress (Shimazu & de Jonge, 2009).

Although an employee would typically aim towards a balance between efforts and rewards, an employee's overcommitment (OVC) to work can be seen as a risk factor for the harmful imbalance of effort and reward (Siegrist, 1996). OVC describes a motivational pattern that includes strong ambition and commitment towards work in addition to the need to control and gain esteem from others, that is, essentially the "inability to withdraw from work" (Siegrist et al., 2004). Furthermore, OVC has shown to be a reasonably stable personal feature (De Jonge, van der Linden, Schaufeli, Peter, & Siegrist, 2008) and high neuroticism has been associated with higher OVC (Vearing & Mak, 2007). In terms of background factors, higher educational level has been related to higher scores of OVC (Siegrist et al., 2004), and managers and professionals have reported higher efforts and OVC than manual workers (Rydstedt, Devereux, & Sverke, 2007). Therefore, the investigation of OVC is also clearly applicable to managers. OVC is seen as an intrinsic (personal) feature, whereas efforts and rewards are extrinsic (contextual) features (Siegrist, 1999).

Research evidence has recently been connecting the ERI components with indicators of work-related well-being, such as burnout and work engagement used in the present study. The psychological syndrome of burnout is typically described as exhaustion, cynicism, and reduced professional efficacy caused by prolonged job stress (e.g., Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 2008). The core component of the syndrome, exhaustion, refers to the depletion of emotional and physical resources in doing one's work. Cynicism describes a negative or distant attitude towards one's work in general, and it can be characterized as dysfunctional coping, in which employees detach themselves from their work. Reduced professional efficacy represents feelings of incompetence and ineffectiveness in regard to both the social and non-social aspects of occupational achievements.

Work engagement, in turn, aims to capture employees' positive work-related states of vigor, dedication, and absorption at work (e.g., Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004; Schaufeli, Salanova, González-Romá, & Bakker, 2002). Vigor describes high energy and mental resilience towards work. Dedication refers to the employee's feelings of pride, meaningfulness, and enthusiasm about the work. The absorption component describes being fully concentrated and immersed in work as well as losing the sense of time while working. There is already evidence from a longitudinal study regarding the motivational process of job resources (e.g., autonomy, social support, and opportunities for professional development) predicting higher levels of work engagement (Hakanen, Schaufeli, & Ahola, 2008). As opposed to job resources, job demands (e.g., high workload, poor working environment) can instigate health impairment processes resulting in higher levels of burnout (Hakanen et al., 2008; for a review see, Halbesleben & Buckley, 2004).

Previous studies have associated higher ERI with higher burnout (e.g., Dai, Collins, Yu, & Fu, 2008; Willis, O'Conner, & Smith, 2008), and particularly with emotional exhaustion, as well as with lower job satisfaction (for a review, see van Vegchel et al., 2005). Similarly, higher OVC has been associated with higher burnout (e.g., Dai et al., 2008; Willis, O'Conner, & Smith, 2008) and with lower job satisfaction (Calnan, Wainwright, & Almond, 2000). Among managers, higher ERI related to turnover intentions and lower vigor and dedication, which are the core constructs of work engagement (Kinnunen et al., 2008).

1.2. Personal work goals and occupational well-being

Personal work goals in the present study draw upon the work of Little (1983, 2000, 2007) on "personal projects" and his social ecological model of adaptation and well-being. Personal projects focus on the intentional action of an individual and relate to the similar research tradition (for reviews, see Austin & Vancouver, 1996; Karoly, 1993) shared, for example, with "personal strivings" (e.g., Emmons, 1986) and "life tasks" (e.g., Cantor, Norem, Niedenthal, Langston, & Brower, 1987). Personally salient projects can range from immediate goals to life-long plans, which are sensitive to the person's life context and personal characteristics (Little, 2007). We focus specifically on personal work- and career-related goals ("personal work goals"), which can reveal the cognitive, affective, and behavioral orientations of an individual, and attach meaning to behavior in the workplace (Pomaki et al., 2004). Moreover, goals guide selection and therefore also channel development (Baltes, 1997; Salmela-Aro, 2009).

The two primary approaches for analyzing personal goals are through the appraisals or the contents of goals. The analysis of goal *appraisals* addresses the cognition and affect in relation to goals. This approach focuses on evaluations of goals in regard to certain characteristics such as relevance, importance, attainability, and emotional salience (e.g., Ford, 1992). The *contents* of personal goals describe the person's orientation towards the future, reflecting wants, wishes, concerns, and intentions. Goal contents also reflect age-related developmental tasks, since personal goals are positioned within the current life situation through opportunities, demands, and restrictions (Nurmi, 1992; Salmela-Aro, 2001, 2009; Salmela-Aro, Aunola, & Nurmi, 2007).

The current study is directed towards the contents of personal work goals among 747 young Finnish managers, and more specifically, focuses on the eight goal categories identified in a previous study (see Hyvönen et al., 2009). Young managers' most important personal work goals related to competence (professional development and training; 28%), career progression (21.7%), well-being (self-concerns, managing stress, job satisfaction, motivation; 13.9%), and job change (finding a new job or setting up a company; 12.6%). The smaller goal categories oriented towards job security (continuing working, securing a permanent employment contract; 6.8%), organization (focusing on the success of the team, department, or organization; 5.1%), and finance (pay rise, bonus; 3.6%). In addition, 8.3% of managers did not mention a work goal. The goal categories resembled the work-related goal categories found in a study by Wiese and Salmela-Aro (2008) with a smaller sample of employees (*n* = 131) working in a range of positions and professional fields.

Only a few previous studies have considered the contribution of goal processes to the person–environment interactions (Pomaki et al., 2004; ter Doest, Maes, Gebhardt, & Koelewijn, 2006). These studies tested the effects of goal appraisals (Pomaki et al., 2004) and perception of goal facilitation at work (ter Doest et al., 2006) on well-being in the context of the job demands-control-support model (e.g., J-DC, Karasek, 1979; J-DCS, Johnson & Hall, 1988; Karasek & Theorell, 1990), a work stress model resembling the ERI model. The studies found that both goal processes (goal appraisals and facilitation) had unique explanatory power on job attitudes and well-being over and above the main effect of work conditions. These studies emphasize the need to consider the effect of goal processes in occupational well-being, whereby the more dynamic relationships between work environment and the individual can be taken into account (Pomaki & Maes, 2002; Pomaki et al., 2004).

Convincing evidence regarding the well-being associations of personal goal contents originates from the research focusing on developmentally appropriate personal goals. Accordingly, focusing on and achieving major developmental tasks have been found to predict positive affect outcomes (e.g., Salmela-Aro, Aunola, & Nurmi, 2008; Salmela-Aro & Nurmi, 1997a). Personal goals can indicate the progress in life transitions, which in turn facilitates setting and attaining new goals (Nurmi, 1992; Salmela-Aro et al., 2007). Within the occupational context, early adulthood (broadly 25–40 years) relates to "career establishment" (e.g., Super, 1969, 1985, 1990; see also Savickas, 1997). In a previous study, the personal work goals that reflected orientation towards managerial leadership tasks and establishing one's career (i.e., organizational, competence, and progression goals) were associated with lower burnout and higher work engagement (see Hyvönen et al., 2009). Work characteristics could play a critical role in the pursuit of these personal work goals. For instance, employees have reported more positive job attitudes (Maier & Brunstein, 2001; ter Doest et al., 2006) and better well-being (ter Doest et al., 2006) in work environments perceived as supportive of goal attainment. Among managers, goal attainment was linked with higher subjective well-being, whereas enduring goal conflicts were found to hinder the attainment of new goals (Kehr, 2003).

In the previous study of young managers, well-being goals (e.g., self-concerns, motivation, job satisfaction) were connected to lower occupational well-being (Hyvönen et al., 2009). Further evidence suggests that a strong orientation towards self-focused (intrapersonal) goals is associated with a higher incidence of symptoms of depression (e.g., Salmela-Aro & Nurmi, 1997b; Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2001) and in addition among employees with higher burnout (Salmela-Aro & Nurmi, 2004). These types of goals are directed to developing self, personality, health, or life, and can represent the person's concerns, rumination, and attachment to the past (e.g., Little & Gee, 2007; Salmela-Aro, Pennanen, & Nurmi, 2001).

The work environment behind well-being, as well as job change goals, which were also associated with a lower level of occupational well-being in the previous study (Hyvönen et al., 2009), could be characterized by conditions that overload the individual or offer less rewards for work contributions. According to Little's (2000, 2007) model, well-being and job change goals could exemplify situations where the employee is struggling to balance the personal and contextual features in order to achieve their core goals: For instance, an overcommitted manager in unstable and stressful job conditions could be more inclined to feel burdened and become concerned for his or her own well-being (i.e., become oriented towards well-being goals).
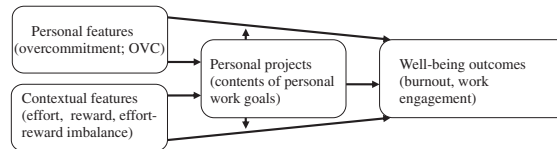
Fig. 1. The theoretical model of the study showing the investigated relationships based on Little's (2000, 2007) social ecological model of well-being and the Effort–Reward Imbalance model (Siegrist, 1996).

1.3. The present study

In this study, we combined the two research traditions – work stress and goal pursuit – in order to shed new light on the role of personal work goals in relation to the links between psychosocial work environment and occupational well-being. In line with our theoretical model (see Fig. 1), we investigate whether personal work goals mediate the relationship between the ERI components and occupational well-being as suggested by Little's model of well-being (e.g., 2000, 2007). Personal goals could also moderate the relationship between the ERI components and occupational well-being. This moderation process follows the notion of the reactivity model (e.g., Bolger & Zuckerman, 1995; Kammeyer-Mueller, Judge, & Scott, 2009): For instance, it is possible that some goals (e.g., goals related to career establishment) buffer against the effect of high effort and low reward in the workplace on well-being. To sum, our research questions were:

1. Do the ERI components (effort, reward, effort–reward imbalance, OVC) contribute to the contents of personal work goals? The goal contents of young managers' most important work or career goal have been coded in a previous study into goal categories of competence, progression, well-being, job change, job security, organization, finance, or no work goal (Hyvönen et al., 2009). Based on previous theory (Little, 2000, 2007) and research (e.g., Kehr, 2003; Maier & Brunstein, 2001), we expected that a favorable work environment (low effort, high reward, low effort–reward imbalance) is associated with goals related to managerial leadership tasks and career establishment (e.g., competence and progression goals). In contrast, we assumed that an unfavorable work environment (high effort, low reward, high effort–reward imbalance) increases the likelihood of goals related to well-being and changing jobs. We also expected higher overcommitment to be related to well-being goals.
2. Do work goal contents mediate the relationship between the ERI components (effort, reward, effort–reward imbalance, OVC) and occupational well-being (burnout, work engagement)? In accord with Little's model of well-being (e.g., 2000, 2007), we expected that goal contents function as mediators between the ERI components and occupational well-being. Furthermore, previous research has also supported the relationships between psychosocial work environment and occupational well-being (e.g., Dai et al., 2008; Kinnunen et al., 2008; Willis, O'Conner, & Smith, 2008), as well as between goal processes and well-being (Hyvönen et al., 2009; Pomaki et al., 2004; Salmela-Aro & Nurmi, 2004).
3. Do work goal contents moderate the relationship between the ERI components (effort, reward, effort–reward imbalance, OVC) and occupational well-being (burnout, work engagement)? The reactivity model proposes that individual factors – such as goal contents in the present study – can function as moderators between stressors and occupational well-being outcomes (e.g., Bolger & Zuckerman, 1995; Kammeyer-Mueller et al., 2009), but no specific assumptions can be made regarding the role of goal contents due to the lack of research in this particular area.

2. Method

2.1. Participants and procedure

The questionnaire study was conducted in Spring 2006. The original sample consisted of all members of two Finnish national labor unions (the Union of Salaried Employees and the Union of Professional Engineers) who were less than 36 years old and whose professional title referred to management position. These criteria were met by 1904 union members. Questionnaires were posted to the home addresses of the participants and in total 933 questionnaires were returned. Of the respondents, 186 were currently not in management or in employment (e.g., maternity leave, studying, or unemployed over 3 months) and therefore, these respondents were excluded from the final sample. The response rate was 43.4%. The attrition analysis showed that the participants did not differ in terms of gender from nonrespondents ($n = 971$), $\chi^2 (1) = 0.70$, ns. The data of the nonrespondents' age was only available for the members of the Union of Salaried Employees; these respondents ($n = 331$) did not differ from nonrespondents ($n = 379$) in age, $t(708) = 1.53$, ns.

The average age of the participants was 31 years (range 23–35 years, $SD = 3.2$ years). A large majority of participants were men (85.5%), and 8.5% of participants were in upper management, 48.8% in middle management, and 42.7% in lower management. The majority of participants were engineers (67.4%) and other participants were technicians (6.1%) or had other

professional qualifications (24.6%). Only 1.9% of participants had no professional qualification. The main employment fields included technology (metal and electronics; 27.8%), the building industry (12.8%), forestry (8.8%), information technology (8.2%), and the chemical industry (6.8%). Of the participants, 35.6% were working in fields other than those listed, such as consultancy, food industry, customer service, sales, and logistics. A large majority of the participants had a permanent employment contract (93.3%). Of the participants, 31.3% had experienced periods of unemployment or lay-offs since graduation.

2.2. Measures

Personal work goals were inquired about by posing an open-ended question: "Write down your most important personal goal that relates to your work or career" (see Hyvönen et al., 2009, for more detail). The participants' responses were thematically categorized by three coders using a generic and data-driven qualitative analysis that did not rely on preset categories. Seven content categories were found (listed in descending order of size): competence goals (28%; $n = 209$); progression goals (21.7%; $n = 162$); well-being goals (13.9%; $n = 104$); job change goals (12.6%; $n = 94$); job security goals (6.8%; $n = 51$); organizational goals (5.1%; $n = 38$); and financial goals (3.6%; $n = 27$). In addition to these aforementioned seven goal content categories, an eighth group with participants who had either not mentioned a work goal or mentioned a goal unrelated to work or career were assigned to the "no work goals" category (8.3%; $n = 62$). Each participant could be in only one of the eight goal categories. A fourth independent coder applied this categorization agreed on by the first three coders and the intercoder agreement of the goal content categories was 92%. This categorization has been utilized in the following data analyses.

Effort, reward, effort–reward imbalance, and *OVC* were measured by the questionnaire developed by Siegrist et al. (2004). The good construct and discriminant validity of the Finnish version of the ERI scale has been reported previously by Kinnunen et al. (2008). Effort was assessed with 5 items describing the demands in the workplace (e.g., "I have constant time pressure due to a heavy work load"). If the respondent answered the question affirmatively, they were asked to rate the impact of effort from not at all distressed to very distressed. The scale was: (1) does not apply; (2) does apply, but I am not at all distressed; (3) does apply, and I am somewhat distressed; (4) does apply, and I am distressed; (5) does apply, and I am very distressed. A higher mean score of effort indicates more effort invested at work. The internal consistency (Cronbach's alpha) for effort was .88 ($M = 3.14$; $SD = 0.98$).

Reward was assessed with 11 items describing esteem (5 items, e.g., "I receive the respect I deserve from my superiors"), career opportunities (4 items, e.g., "Considering all my efforts and achievements, my salary/income is adequate"), and job security (2 items, e.g., "My job security is poor", reverse scored). The same rating and scoring procedure was used as described above for the effort scale, and a higher mean score of rewards indicates more rewards received at work. The Cronbach's alpha for reward was .86 ($M = 4.05$; $SD = 0.74$).

The imbalance of effort and reward is described as an ERI-ratio. The ERI-ratio is calculated by first multiplying the sum score of reward with a correction factor (see Niedhammer, Tek, Starke, & Siegrist, 2004; Siegrist et al., 2004). Because 5 items of effort were used, as opposed to 11 items of reward, the correction factor in this study was 0.4545. The sum score of effort is then divided by the corrected sum score of reward. A score close to "0" indicates favorable conditions, where received rewards outweigh the effort invested at work. In turn, a score over "1" indicates unfavorable conditions, where more effort is spent than rewards expected or received in return. As recommended by previous studies (see Niedhammer et al., 2004; Siegrist et al., 2004), a continuous variable of the ERI-ratio was used for the analyses. The mean of the ERI-ratio was 0.82 ($SD = 0.40$).

OVC included 6 items (e.g., "As soon as I get up in the morning I start thinking about work problems"). The items were scored on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The higher the score, the more overcommitment the participant reported. The Cronbach's alpha for OVC was .72 ($M = 2.25$; $SD = 0.57$).

Burnout was measured with the Bergen Burnout Indicator 15 (BBI-15; Näätänen, Aro, Matthiesen, & Salmela-Aro, 2003). The scale has 15 items and includes 3 dimensions: emotional exhaustion (5 items; e.g., "I am snowed under with work"), cynicism (5 items; e.g., "I frequently question the value of my work"), and reduced professional efficacy (5 items; e.g., "My expectations to my job and to my performance have reduced"). Items were answered on a 6-point scale ranging from 1 (*completely disagree*) to 6 (*completely agree*). BBI-15 has a strong positive correlation ($r = .79$) with the Maslach Burnout Inventory (Schaufeli, Leiter, Maslach, & Jackson, 1996), and the construct validity of the Finnish version of the scale has been reported by Näätänen et al. (2003). The Cronbach's alpha for burnout was .89 ($M = 2.66$; $SD = 0.79$).

Work engagement was assessed using the Utrecht Work Engagement Scale with 9 items (UWES-9; Schaufeli, Bakker, & Salanova, 2006). The scale has three dimensions, comprising vigor (3 items; e.g., "At my work, I feel bursting with energy"), dedication (3 items; e.g., "My job inspires me"), and absorption (3 items; e.g., "I am immersed in my work"). Responses were given on a 7-point scale from 1 (*never*) to 7 (*every day*). The construct validity of the short version (vs. the 17-item scale) of the UWES has proven to be better with this sample of young Finnish managers, as well as with other Finnish occupational groups (Seppälä et al., 2009). The Cronbach's alpha was .91 ($M = 5.41$; $SD = 1.05$).

The *background variables* included gender (male/female), managerial level (upper/middle/lower), employment contract (permanent/fixed-term), and career disruptions (some/no periods of unemployment or lay-offs since graduation). On the basis of the previous study with this sample of managers, these background variables were related to the outcome measures used, and therefore, these variables were also controlled for in the following analyses (Hyvönen et al., 2009).

2.3. Analyses

We calculated Spearman correlation coefficients for study variables on a binomial scale and Pearson correlation coefficients for continuous variables. For the correlations, dichotomous variables of goal categories were computed, where "1" indicated membership for that category and "0" indicated not being in the category. We calculated multinomial regression analyses to predict the membership to the eight goal categories on the basis of the ERI components (effort, reward, ERI-ratio, OVC). Because of multicollinearity, two separate analyses were calculated for the effect of the ERI components to estimate odds ratios (OR) and 95% confidence intervals (CI): First, only the effort and reward components were investigated, and the second analysis included ERI-ratio and OVC. In both analyses, the background variables were adjusted for.

The mediating and moderating effects of goal contents between the ERI components and occupational well-being were estimated using the GLM (General Linear Model) with hierarchical partition of the sum of squares. In this procedure, the analysis of the mediating effect of goal contents is based on the following assumption: The different mean levels of the ERI components facilitate personal work goals that can be considered favorable or unfavorable according to their level of occupational well-being (burnout, work engagement). Proceeding from this, the mean differences of the ERI components in the goal categories can linearly predict the mean differences in burnout and work engagement. That is, the same rank order of goal categories can be observed both in the independent and dependent variables, but with different weight on the means of the categories. The methodological advantage of this analysis relates to investigating the mediating effect of multiple categorical variables (eight goal categories) on burnout and work engagement, where the direct effect of the ERI components is separated from the mediating and moderating effects of the eight goal categories. Again, due to multicollinearity of the ERI components, effort and reward were in separate analyses with ERI-ratio and OVC.

In the hierarchical GLM analyses, the first block of variables consisted of the effects of four background factors (gender, managerial level, employment contract, career disruptions) on burnout and work engagement. The second block included the direct effects of the independent variables (ERI components) on burnout and work engagement. For this, new additional variables were calculated for each independent variable by subtracting the mean score of the goal category from the mean score of each participant (i.e., eliminating the group-level differences in the independent variable). The third block consisted of the mediating effects of the goal categories when the original scores of the ERI components were entered, thus showing the effect of the group-level differences in order to explain their variance in burnout or work engagement. In the fourth block, the effect of goal categories on burnout and work engagement was included. The fifth and last block consisted of the moderating effects of goal categories (i.e., the interaction terms between the goal categories and the ERI components). The interaction terms were calculated by multiplying the independent variable with the goal category. Traditionally, it has been thought that to test mediation, a significant association is required between the independent and dependent variables (e.g., Baron & Kenny, 1986). More recently, however, it has also been argued that mediation can exist without this significant association (see MacKinnon & Fairchild, 2009), which was taken into consideration in the present study. All the statistical analyses were performed with the SPSS 15.0 for Windows.

3. Results

3.1. Descriptive results

The intercorrelations between all the study variables are presented in Table 1. The goal categories (except for progression and financial goals) showed significant correlations with the ERI components and indicators of occupational well-being, as was expected. Competence and organizational goals were associated with higher reward and work engagement, and in addition to these associations, organizational goals were also connected to lower ERI-ratio. Job security goals were associated with lower levels of effort, effort–reward imbalance, OVC, and burnout. In contrast, well-being and job change goals were connected to lower reward and work engagement as well as to higher ERI-ratio and burnout. Additionally, well-being goals were related to higher effort and OVC. Not mentioning a work goal was only associated with lower work engagement. Competence goals had a weak positive correlation with female gender. Job security goals were associated with lower managerial levels, fixed-term contracts, and career disruptions. Organizational goals, in turn, were associated with higher managerial levels.

3.2. The components of the ERI model and personal work goals

Two multinomial regression analyses were performed to investigate whether the components of the ERI model (effort, reward, ERI-ratio, OVC) predicted the membership to the eight goal categories of personal work goals, when adjusted for gender, managerial level, employment contract, and career disruptions. In these analyses, other categories were compared to the category comprising organizational goals. This goal category was chosen as a reference group, because in a previous study organizational goals have shown to relate to the highest level of occupational well-being with this sample of managers (Hyvönen et al., 2009). The first multinomial regression with effort and reward as predictors of the membership to the goal categories showed significant associations, χ^2 (49) = 161.60, p < .001. As seen in Table 2, reward was a more significant contributor than effort: A 1 *SD* decrease in reward was associated with an increased likelihood of naming goals related to pro-

Table 1
Correlation coefficients for study variables (N = 708–747).

Variables (range)	1	2	3	4	5	6	7	8	9	10
1. Gender (1 = male, 2 = female)[1]										
2. Managerial level (1 = upper, 3 = lower)[1]	−.02									
3. Employment contract (1 = permanent, 2 = fixed-term)[1]	.05	.38***								
4. Career disruptions (1 = no, 2 = yes)[1]	−.01	.13***	.07							
5. Effort (1–5)[2]	−.11**	−.17***	−.22***	−.09*						
6. Reward (1–5)[2]	−.06	−.06	−.04	−.05	−.33***					
7. ERI-ratio[2]	−.07	−.10**	−.17***	−.05	.81***	−.76***				
8. OVC (1–4)[2]	.05	−.17***	−.17***	−.09*	.54***	−.28***	.49***			
9. Burnout (1–6)[2]	.04	−.08*	−.10**	−.03	.50***	−.54***	.59***	.64***		
10. Work engagement (1–7)[2]	.10**	−.08*	−.01	−.09*	−.04	.38***	−.21***	−.05	−.35***	
11. Competence goals[1]	.07*	−.05	−.02	−.02	−.02	.10**	−.04	.02	−.07	.16***
12. Progression goals[1]	−.02	.01	.01	−.05	−.02	.05	−.03	−.04	−.06	.04
13. Well-being goals[1]	−.05	.04	.04	.06	.11**	−.07*	.10**	.09*	.16***	−.11**
14. Job change goals[1]	.06	−.06	−.06	−.05	.04	−.15***	.10**	.03	.12**	−.15***
15. Job security goals[1]	−.05	.09*	.10**	.17***	−.14***	.00	−.12**	−.10**	−.11**	−.01
16. Organizational goals[1]	.03	−.11**	−.05	−.06	−.05	.13***	−.09*	−.02	−.05	.13**
17. Financial goals[1]	−.04	.05	.03	.01	−.04	−.02	−.03	−.03	−.03	−.01
18. No work goals[1]	−.05	.06	−.01	−.03	.06	−.06	.07	.01	.01	−.10**

Note. Spearman correlations for dichotomous/categorical variables and Pearson correlations for continuous variables.
[1] Dichotomous/categorical variable.
[2] Continuous variable.
* p < .05.
** p < .01.
*** p < .001.

gression, well-being, job change, job security, finance, or no work goal. A 1 *SD* increase in effort was associated only with an increased likelihood of setting well-being goals.

The second multinomial regression analysis, in which ERI-ratio and OVC were investigated, also yielded significant associations, χ^2 (49) = 144.38, p < .001 (see Table 3). An increase in ERI-ratio also increased the likelihood of naming goals related to progression, well-being, job change, or no work goal. OVC, instead, was not a significant contributor. Table 2 and 3 also show the contribution of background variables on the membership of goal categories. These results resembled the correlations between the background variables and goal categories in Table 1.

3.3. Mediating and moderating effects of personal work goals

The results of the hierarchical GLM analyses in relation to burnout and work engagement are shown in Table 4, which also includes the means and standard deviations of the ERI components, burnout, and work engagement displayed for each goal category. The ERI components had a direct and an indirect effect through the goal categories on burnout. In terms of work engagement, only reward and ERI-ratio had a direct and an indirect effect on work engagement. Effort was found to have an indirect effect through goal categories on work engagement, but not a direct effect.

The mediating effects of goal contents in linear prediction can be observed when ranking the goal categories according to the mean scores of the ERI components. The indirect effect is explicated particularly towards the end points in the range of the category means. The highest level of reward as well as low levels of effort, ERI-ratio, and OVC among participants with organizational goals linearly predicted low burnout and the highest work engagement. In addition, the lowest levels of effort, ERI-ratio, and OVC among participants with job security goals linearly predicted the lowest burnout, but they had only an average level of work engagement. Instead, higher levels of effort and ERI-ratio and lower rewards among participants with well-being, job change, or no work goals linearly predicted higher burnout and lower work engagement. Furthermore, the highest level of OVC among participants with well-being goals was connected to the highest level of burnout.

In other goal categories, the means were less often ranked towards the extremes: Average levels of effort, ERI-ratio and OVC, as well as reasonably good rewards, were reported by participants with competence and progression goals in conjunction with a slightly lower-than-average level of burnout and good work engagement. Furthermore, lower levels of effort, ERI-ratio, and OVC, as well as an average level of reward, were connected to low burnout and average work engagement among participants with financial goals.

In terms of the moderating effects of goal contents on burnout and work engagement, only one interaction out of four reached a significant level after the mediated effect of goal categories was adjusted for. The moderating effect of goal categories was found between reward and work engagement, F (7, 694) = 2.13, p < .05. In further analyses, categories were contrasted with each other in pairs to investigate which goal categories moderated the relationship between reward and work engagement. Several comparisons between the category with financial goals and other goal categories (competence, progression, job change, and job security goals) became significant. Accordingly, a 1 *SD* decrease in reward was associated with

Table 2
Results of multinomial regression analysis predicting membership to goal categories based on background variables, effort, and reward (with organizational goals as the reference category; 5.1%; $n = 38$).

Study variables	Competence (28%; $n = 209$) OR (95% CI)	Progression (21.7%; $n = 162$) OR (95% CI)	Well-being (13.9%; $n = 104$) OR (95% CI)	Job change (12.6%; $n = 94$) OR (95% CI)	Job security (6.8%; $n = 51$) OR (95% CI)	Finance (3.6%; $n = 27$) OR (95% CI)	No work goal (8.3%; $n = 62$) OR (95% CI)
Female (vs. male)	0.88 (0.35, 2.23)	0.61 (0.23, 1.61)	0.46 (0.15, 1.38)	0.80 (0.29, 2.24)	0.23* (0.06, 0.94)	0.30 (0.06, 1.61)	0.29 (0.08, 1.11)
Upper management	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Middle management	3.55** (1.38, 9.17)	4.43** (1.57, 12.51)	2.34 (0.80, 6.87)	4.34* (1.33, 14.13)	3.40 (0.63, 18.47)	1.36 (0.28, 6.48)	4.60* (1.07, 19.70)
Lower management	4.53** (1.56, 13.28)	6.67** (2.11, 21.15)	5.24** (1.61, 17.05)	3.76* (1.02, 13.94)	5.91* (1.02, 34.19)	4.65 (0.96, 22.45)	11.24** (2.44, 51.86)
Fixed-term contract (vs. permanent contract)	1.55 (0.19, 12.79)	0.92 (0.10, 8.39)	2.08 (0.24, 18.40)	3.11 (0.35, 27.30)	7.45 (0.87, 63.70)	0[a]	0[a]
Career disruptions (vs. no disruptions)	1.70 (0.70, 4.14)	1.41 (0.56, 3.52)	2.43 (0.95, 6.21)	1.22 (0.46, 3.26)	4.97** (1.76, 14.00)	1.81 (0.56, 5.85)	1.29 (0.46, 3.65)
Effort	1.21 (0.82, 1.78)	1.18 (0.79, 1.75)	1.60* (1.05, 2.45)	1.11 (0.73, 1.70)	0.72 (0.44, 1.19)	0.87 (0.50, 1.51)	1.23 (0.77, 1.95)
Reward	0.62 (0.36, 1.05)	0.54* (0.32, 0.93)	0.52* (0.30, 0.91)	0.35*** (0.20, 0.60)	0.47* (0.26, 0.88)	0.44* (0.23, 0.85)	0.43** (0.24, 0.77)

Note. OR, odds ratio; CI, confidence interval.
[a] Not a reliable result due to a low representation of sample.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 3
Results of multinomial regression analysis predicting membership to goal categories based on background variables, ERI-ratio, and OVC (with organizational goals as the reference category; 5.1%; $n = 38$).

Study variables	Competence (28%; $n = 209$) OR (95% CI)	Progression (21.7%; $n = 162$) OR (95% CI)	Well-being (13.9%; $n = 104$) OR (95% CI)	Job change (12.6%; $n = 94$) OR (95% CI)	Job security (6.8%; $n = 51$) OR (95% CI)	Finance (3.6%; $n = 27$) OR (95% CI)	No work goal (8.3%; $n = 62$) OR (95% CI)
Female (vs. male)	0.93 (0.37, 2.33)	0.69 (0.26, 1.80)	0.46 (0.16, 1.35)	1.05 (0.38, 2.86)	0.29 (0.07, 1.17)	0.37 (0.07, 1.96)	0.36 (0.10, 1.36)
Upper management	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Middle management	3.73** (1.45, 9.58)	4.69** (1.67, 13.16)	2.48 (0.85, 7.21)	5.06** (1.58, 16.25)	3.99 (0.74, 21.47)	1.60 (0.34, 7.56)	4.69* (1.10, 19.99)
Lower management	4.84** (1.68, 13.92)	7.18*** (2.31, 22.35)	5.57** (1.74, 17.82)	4.66* (1.29, 16.87)	7.64* (1.35, 43.32)	5.90* (1.25, 27.85)	12.09*** (2.67, 54.78)
Fixed-term contract (vs. permanent contract)	1.61 (0.19, 13.30)	0.95 (0.10, 8.71)	2.15 (0.24, 18.96)	3.46 (0.40, 30.12)	7.91 (0.93, 67.29)	0[a]	0[a]
Career disruptions (vs. no disruptions)	1.74 (0.71, 4.24)	1.44 (0.58, 3.59)	2.50 (0.98, 6.39)	1.29 (0.49, 3.43)	5.25** (1.87, 14.76)	1.93 (0.60, 6.21)	1.37 (0.48, 3.86)
ERI-ratio	1.53 (0.88, 2.66)	1.80* (1.03, 3.15)	1.93* (1.09, 3.43)	2.49** (1.40, 4.40)	1.19 (0.59, 2.39)	1.53 (0.74, 3.15)	2.28** (1.26, 4.15)
OVC	1.09 (0.71, 1.66)	0.94 (0.61, 1.46)	1.24 (0.79, 1.96)	0.88 (0.55, 1.40)	0.87 (0.51, 1.49)	0.93 (0.51, 1.70)	0.85 (0.51, 1.40)

Note. OR, odds ratio; CI, confidence interval.
[a] Not a reliable result due to a low representation of sample.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 4
Means and standard deviations of the ERI components, burnout, and work engagement in the goal categories. Results of hierarchical GLM showing the direct and indirect effects (via goal categories) of the ERI components on burnout and work engagement.

Variables (range)	Effort (1–5) Mean (SD)		Reward (1–5) Mean (SD)		ERI-ratio Mean (SD)		OVC (1–4) Mean (SD)		Burnout (1–6) Mean (SD)	Work engagement (1–7) Mean (SD)
Competence	3.11 (0.91)		4.16 (0.70)		0.79 (0.34)		2.26 (0.55)		2.56 (0.69)	5.66 (0.96)
Progression	3.11 (1.01)		4.10 (0.74)		0.81 (0.40)		2.21 (0.55)		2.55 (0.74)	5.53 (0.90)
Well-being	3.40 (0.95)		3.98 (0.64)		0.89 (0.35)		2.37 (0.61)		2.98 (0.81)	5.17 (1.03)
Job change	3.24 (0.98)		3.75 (0.80)		0.94 (0.47)		2.29 (0.64)		2.94 (0.90)	4.98 (1.22)
Job security	2.64 (0.86)		4.09 (0.63)		0.67 (0.30)		2.03 (0.57)		2.37 (0.64)	5.42 (0.92)
Organization	2.93 (1.02)		4.43 (0.53)		0.69 (0.32)		2.17 (0.59)		2.49 (0.74)	5.92 (0.84)
Finance	2.92 (0.94)		4.03 (0.69)		0.77 (0.35)		2.16 (0.48)		2.53 (0.74)	5.38 (1.00)
No work goal	3.33 (1.10)		3.82 (0.91)		0.98 (0.54)		2.26 (0.50)		2.72 (0.89)	4.99 (1.29)
Total	3.14 (0.98)		4.05 (0.74)		0.83 (0.40)		2.25 (0.57)		2.66 (0.79)	5.41 (1.05)
Burnout	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect		
F-value	247.48***	45.00***	155.55***	7.83**	436.60***	58.12***	215.33***	9.54**		
ΔR^2	.21	.04	.13	.01	.30	.04	.15	.01		
Work engagement										
F-value	0.13, ns.	21.26***	97.85***	38.71***	19.10***	39.64***	0.63, ns.	3.07, ns.		
ΔR^2		.02	.11	.04	.02	.05				

Note. $\Delta R^2 = R^2$ change. Background variables of gender, managerial level, employment contract, and career disruptions controlled for.
** *p* < .01.
*** *p* < .001.

increased work engagement among those participants with financial goals, whereas a 1 *SD* increase in reward was associated with reduced work engagement among those participants with financial goals. This direction was the opposite for the other aforementioned categories: That is, a 1 *SD* decrease in reward was associated with reduced work engagement and a 1 *SD* increase in reward was associated with higher work engagement among participants with competence, progression, job change, and job security goals. Fig. 2 depicts an example of this interaction where financial goals are compared to competence goals.
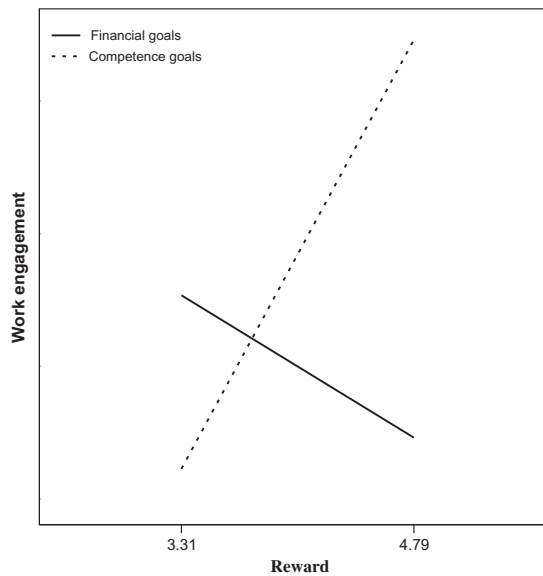
Fig. 2. Showing an example of the moderating effect of financial goals between reward and work engagement.

4. Discussion

Our aim was to investigate the role of personal work goals in the relationship between the ERI components and occupational well-being in light of Little's model of well-being (e.g., 2000, 2007) adapted to the occupational domain (see Fig. 1). In line with our expectations, the present study provided valid evidence for the contribution of the psychosocial work environment (effort, reward, effort–reward imbalance) to the orientation of goals represented as goal content categories of competence, progression, well-being, job change, job security, organization, finance, and no work goals. The goal contents were also shown to serve as mediators, especially between the features of the work environment and occupational well-being (burnout, work engagement). The contribution of the studied personal feature (OVC) to the goal contents, on the other hand, received less support, since goal contents were only found to have a mediating effect between OVC and burnout. In addition, moderating effects of goal contents were observed in relation to reward and work engagement.

4.1. The work environment behind personal work goals and occupational well-being

The contribution of the work environment (effort, reward, effort-reward imbalance) to the contents of personal work goals was highlighted in addition to the role of goal contents as mediators between work environment and occupational well-being (burnout, work engagement). The small group of managers oriented towards the performance and success of the organization (organizational goals) stood out as perceiving their work environment as offering the highest rewards, such as esteem, career prospects, and adequate payment. Managers with organizational goals also experienced low effort–reward imbalance that, according to the ERI model (e.g., Siegrist, 1996; Siegrist et al., 2004), indicates favorable work conditions where effort invested is reciprocated by good rewards. The results regarding the mediating effects of goal contents reiterated these findings by indicating a further connection between organizational goals and higher occupational well-being. Thus, our findings complimented previous research, where facilitative and favorable work environments for goal attainment were connected with positive well-being outcomes (Maier & Brunstein, 2001; ter Doest et al., 2006). Accordingly, it appears that a favorable work environment (low ERI-ratio) does not only promote occupational well-being among managers (Kinnunen et al., 2008), but as the present study shows, also contributes to pursuing goals beneficial to the performance of the organization.

The findings also drew the attention towards managers who had named well-being goals (e.g., related to self-concerns, work stress, job satisfaction, motivation) and those with job change goals (e.g., related to changing job/career, self-employment), as well as towards managers who had not named a personal work goal. Managers in these goal categories experienced the features of their work environment as significantly less favorable, characterized by low reward and by a deficit of reciprocity (higher ERI-ratio). Rewards for managers appear to play a more pertinent role in work goal pursuit, since effort only contributed to the managers' orientation towards well-being goals. Again, mediating effects of goal contents were observed linearly in higher burnout and lower work engagement among managers with well-being, job change, or no work goals.

Well-being and job change goals could reflect the managers' intention to improve their adjustment and well-being in the workplace as suggested by Little's model of well-being (e.g., 2000, 2007). Better adjustment could be sought by focusing upon the effect of the stressors of the work environment, particularly among managers with well-being goals (e.g., better time management, reducing overtime hours) who also perceived their efforts at work to be at the highest level. On the other hand, a complete change of the work environment could be the strategy to improve occupational well-being among managers with job change goals. The work environment behind job change goals was characterized, in addition to high effort-reward imbalance, by the lowest level of rewards, a finding which unveils a link between unfavorable work environment and future plans to leave the organization. This finding also echoes previous research where higher effort-reward imbalance among managers was associated with stronger intentions to leave the organization (Kinnunen et al., 2008).

The managers with no work goal, those who had left the question regarding their most important work or career goal unanswered (and four managers who had either an irrelevant goal or specifically mentioned that they had no work goal), represent a more heterogeneous group. Various reasons could lie behind nonresponse, and it is plausible that some of these managers felt too overloaded to participate, as suggested by previous research (Barr, Spitzmüller, & Stuebing, 2008). It should be noted that these managers had responded to other parts of the survey, and therefore, the nonresponse to the question regarding personal work goals could also indicate uncertainty regarding their future professional direction. Behind this nonresponse, however, appears to be a less favorable work environment. This opens an interesting question regarding the noncommittal approach to goal pursuit at work and possible reasons leading to it, such as perceptions of low rewards and high effort–reward imbalance in the workplace.

Although our findings on goal contents underscore the goal categories ranked towards the high and low ends of the ERI scales, additional interpretations regarding the work environment behind other goal categories arise. For example, reasonably favorable work environments were reported by over half of the managers whose goals reflected typical career establishment tasks (e.g., Dix & Savickas, 1995; Super, 1990) of competence, progression, as well as job security. These goals were also related to a good level of occupational well-being. Furthermore, an intriguing observation was made in relation to the smallest category of goals, financial goals, which were found to moderate the relationship between reward and work engagement. Among managers with financial goals, lower rewards were associated with higher work engagement than when compared to a situation with high rewards. Predominantly, this direction was the opposite for the other goal categories. It could be that, once the managers who are oriented towards the financial aspects of the job perceive that they have a fair level of rewards at

work, financial goals offer less incentive in terms of boosting energy towards work. Perceiving work mainly as providing financial means rather than enjoyment has in earlier studies also been linked with lower job and life satisfaction (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). Another plausible explanation for this finding could be the item contents of the reward scale. Only 1 out of 11 items of the reward scale (Siegrist et al., 2004) corresponds to measuring the employee's satisfaction in regard to their current pay. The situations, where managers with financial goals perceive themselves to be receiving high rewards, could reflect good career prospects and a supportive work environment rather than satisfaction with their current financial rewards.

4.2. Overcommitment and personal work goals

As opposed to the other ERI components, OVC was not found to contribute to the orientation of managers' work goals when other goal categories were contrasted with organizational goals. Nevertheless, the mediating effect of goal contents was observed between OVC and burnout: For instance, the highest OVC among managers with well-being goals was reported in conjunction with the highest level of burnout. As in earlier studies (e.g., Dai et al., 2008; Willis, O'Conner, & Smith, 2008), OVC was found to have a direct effect on burnout. However, in the present study there was no relationship between OVC and work engagement.

Little's expanded social ecological model (2000, 2007) could illuminate these findings with respect to the contribution of OVC to goal contents. The model takes account "free traits" that refer to shaping and adjusting personal dispositions in order to meet contextual requirements (Little, 1996, 2000; Little & Joseph, 2007). This may be done strategically in order to strive towards core goals: For example, an introverted employee can become an enthusiastic speaker in an important business meeting. With reference to Little's model (e.g., 2007), OVC might be best described as a free trait. While OVC has been thought to represent a reasonably stable personal characteristic, it is also considered as a coping pattern reinforced by a demanding work environment (de Jonge et al., 2008; Siegrist et al., 2004). Therefore, it might be that OVC has a closer connection with goal appraisals than with goal contents. For example, when the pressures of the work environment increase, the managers with more difficulties in detaching from work-related activities could experience their goal as being more straining and time-consuming, but nonetheless would persevere with their personally salient work goal.

4.3. Study limitations and future recommendations

The main constraints of this study lie within the cross-sectional design and common method variance of questionnaire surveys. Reciprocal causality between the goal processes and well-being has already been proposed by Little (2007). For example, a more supportive work environment may generate a higher level of energy to follow certain goals, while the goals can in turn direct behavior in terms of choosing a certain type of work environment. Therefore, it would be unfounded to assume causal relationships between work environment and goal pursuit, and future studies should be conducted to shed light on their longitudinal relationships.

In addition to these study limitations, future research endeavors should address the effect of goal appraisals: For example, positive goal appraisals, or alternatively conflicting goals, could either buffer or enhance the effect of goal contents on occupational well-being. In this study, only OVC was investigated as a work-related personal feature and therefore it would be valuable to address the interplay between more stable personality traits and different goal processes (e.g., goal appraisals and contents). Previous research has already indicated that, for example, neuroticism was associated with personal project related stress among students (Little, Lecci, & Watkinson, 1992).

4.4. Conclusions

The theoretical contributions of our study pertained to testing Little's (2000, 2007) social ecological model of well-being in the occupational context and focusing specifically on the orientation of personal work goals. The practical implications of the study highlighted in our findings relate to the effect of work environment on the goal pursuit of young managers. A rewarding work environment with reciprocity of efforts invested and rewards received (low effort-reward imbalance) appears to be instrumental in promoting goals that are beneficial to the organization as well as to occupational well-being. In contrast, the managers reporting less favorable work environments had goals, which reflected concerns regarding well-being or intentions to leave the organization. Furthermore, lower levels of occupational well-being were also more prevalent among these managers.

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III

The changing context of personal work goals: The psychosocial work environment and personal work goals in a two-year follow-up study

by

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The Changing Context of Personal Work Goals: The Psychosocial Work Environment and Personal Work Goals in a Two-Year Follow-up Study

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Abstract

The association between changes in the psychosocial work environment and changes in personal work goals were investigated in a two-year longitudinal study. The psychosocial work environment was studied within the context of the Effort–Reward Imbalance model (Siegrist, 1996) including the dimensions of effort, reward, and effort–reward imbalance. The participants consisted of 423 young Finnish managers (24–36 years in 2006). The participants' most important personal work goals were categorized into seven content categories of competence, progression, well-being, job change, job security, organization, and finance. The ANCOVAs showed that there were differences especially in reward between participants whose goals changed during the two-year period. First, participants who engaged in job change goals reported a decrease in reward, whereas participants who engaged in competence or organizational goals reported an increase in reward. Second, participants who disengaged from job change goals reported an increase in reward and a reduction of effort–reward imbalance. Finally, participants who disengaged from job security goals reported a reduction in reward and an increase in effort–reward imbalance. The study highlighted the central role of rewards in goal pursuit, which also bear implications on the occupational well-being of employees.

Keywords: psychosocial work environment, personal work goals, goal contents, effort, reward, effort–reward imbalance

The Changing Context of Personal Work Goals: The Psychosocial Work Environment
and Personal Work Goals in a Two-Year Follow-up Study

Introduction

The impact of the psychosocial work environment on occupational health and
well-being has been indicated by a large body of occupational stress research (for
reviews, see Cooper, Dewe, & O'Driscoll, 2001; Kahn & Byosiere, 1992; Stansfeld &
Candy, 2006; Tsutsumi & Kawakami, 2004; van Vegchel, de Jonge, Bosma, &
Schaufeli, 2005). The present study provides a new perspective to the current
occupational stress theories by extending the investigation to future-oriented, work-
related aspirations of managers (i.e., personal work goals) over a 2-year period (2006–
2008). Previous personal goal research has already shown that the contents of personal
life goals (Salmela-Aro & Nurmi, 2004) and appraisals of personal work goals (e.g.,
Harris, Daniels, & Briner, 2003; Maier & Brunstein, 2001; Pomaki, Maes, & ter Doest,
2004) accounted for individual differences in occupational well-being. Moreover, the
psychosocial work environment contributed to the contents of personal work goals
(Hyvönen, Feldt, Tolvanen, & Kinnunen, 2010), which in turn associated with
occupational well-being indicators of burnout and work engagement in recent cross-
sectional studies (Hyvönen, Feldt, Salmela-Aro, Kinnunen, & Mäkikangas, 2009;
Hyvönen et al., 2010).

The added value of the present study stems from investigating the contents of
self-articulated goals, which have previously drawn less research attention than goal
appraisals (Nurmi, Salmela-Aro, & Aunola, 2009; Pomaki et al., 2004; Salmela-Aro &
Nurmi, 2004) or, for example, the preset measures of goal orientation in different
performance contexts (e.g., Brett & VandeWalle, 1999; for a review, see DeShon &
Gillespie, 2005). To our knowledge, no previous research has specifically addressed the
contents of personal work goals in a longitudinal study. Thus, the mixed methods
approach (e.g., Creswell & Plano Clark, 2007) of this study can shed new light on the
relationship between changes in the contents of ideographic goals as well as on how
psychosocial factors, which describe possible stressors of the work context within
which participants set their goals, are associated with goal pursuit. Our target group
comprised 433 employees, all of whom were in managerial positions and age 36 years
or younger at the onset of the study in 2006. This study can therefore yield potentially
valuable information about the psychosocial factors at work guiding interests and
development in the early phases of careers in management. Due to the key position of
managers in organizations, research of their goals can also stimulate further
understanding of leadership and organizational behavior (Bateman, O'Neill, &
KenworthyU'Ren, 2002), as well as of their occupational well-being, which have been
found to impact also the well-being of subordinates (e.g., van Dierendonck, Haynes,
Borrill, & Stride, 2004; for a review, see Skakon, Nielsen, Borg, & Guzman, 2010).

Psychosocial work environment

An occupational stress model, the effort–reward imbalance (ERI) model by
Siegrist (1996), was utilized to investigate the primary psychosocial stressors in the
work environment. The model is based on the reciprocal relationship between costs and
gains in the workplace. Employees invest effort fulfilling the demands and
responsibilities, such as interruptions, work load, and overtime. In return for their effort,

the employees expect rewards, such as money, esteem, job security, and career opportunities. The model also accounts for the lack of reciprocity between efforts and rewards, which is represented as an imbalance of effort and reward at work. The lack of reciprocity might be present in situations where employees have fewer employment options (e.g., due to skills deficits or a poor job market), but also, for instance, when an employee has strategic ambitions, such as career progression (Siegrist et al., 2004). According to the ERI model, individual factors, namely overcommitment to work, could predispose the employee to investing an exceedingly high amount of effort into work, especially in a demanding work environment (e.g., De Jonge, van der Linden, Schaufeli, Peter, & Siegrist, 2008; Siegrist et al., 2004). Overcommitment is seen as the "inability to withdraw from work" (e.g., Siegrist et al., 2004).

The ERI model proposes that a prolonged lack of reciprocity can be detrimental to health, which has been supported by various research findings (for reviews, see Stansfeld & Candy, 2006; Tsutsumi & Kawakami, 2004; van Vegchel et al., 2005): For instance, a recent study among employees aged 35–44 years indicated that a higher effort–reward imbalance related to a lower heart rate variability, which is connected to an increased risk of coronary heart disease (Loerbroks et al., 2010). Furthermore, the ERI model has also been investigated in relation to indicators of work-related well-being, demonstrating that the components of the model contribute towards explaining variance in burnout symptoms (e.g., Dai, Collins, Yu, & Fu, 2008; Willis, O'Connor, & Smith, 2008), perceived work stress (Calnan, Wadsworth, May, Smith, & Wainwright, 2004), and vigor and dedication at work (Kinnunen, Feldt, & Mäkikangas, 2008). In terms of job attitudes, for instance, lower rewards were associated with lower job satisfaction (e.g., Calnan, Wainwright, & Almond, 2000), and higher effort-reward imbalance with stronger turnover intentions (Kinnunen et al., 2008).

Personal goals within the work context

The theoretical framework of personal work goals is derived from previous research on personal action that has included personal action constructs (PAC, Little, 2007) such as personal projects (Little, 1983) and personal strivings (Emmons, 1986). These PAC units of analyses can be considered as "middle level" constructs in personality research, where evolutionary and personality trait theories feed into PAC theories, which together shape a person's identity and life narratives (e.g., Little, 2007; see also McAdams, 1995; McAdams & Pals, 2006; McGregor, McAdams, & Little, 2006). Personal goals can range from immediate plans to goals that last through an individual's life span (Little, 2007). Personal goals can be distinguished from goal orientation that is often considered as a personal disposition (e.g., learning goal, performance-prove, performance-avoid orientations) which can impact the person's choice of goal contents (Brett & VandeWalle, 1999).

Personal goals have been investigated, for example, by categorizing them on the basis of goal contents into categories, such as interpersonal, academic, work, intrapersonal, recreational, health, maintenance, and other (Little, 1983; Little & Gee, 2007). Another typical approach to goal analysis is to examine participants' goal appraisals on dimensions, such as importance, commitment, difficulty, or conflict (for a review, see Austin & Vancouver, 1996). More recently, the consideration of relational aspects of personal goals has also raised interest, for instance, in terms of analyzing the nature of social ties related to goals (Salmela-Aro & Little, 2007). Our study pursued a closer analysis of participants' responses to an open-ended question regarding their work goal. A similar approach has been used by Bateman and colleagues (2002) to

investigate the contents of multiple work goals of 75 top leaders. Of the ten work goal categories identified, the majority of goals related to the leadership role and organizational functioning (e.g., financial, customer, and operational goals; see Bateman et al., 2002). However, the personal goals category was the largest single category (18% of all goals) and referred to goals outside the business environment (e.g., career aspirations, wealth, and family). Thus, goals at work also incorporate hopes and wishes peripheral to work since boundaries between work and home are becoming increasingly blurred (Jones, Burke, & Westman, 2006).

In this 2-year follow-up study, we expected to find the same goal content categories as were identified in the baseline study by Hyvönen et al. (2009) with the same, albeit a larger sample of young managers (N = 747). In this previous study, the contents of the most important personal work goals were coded into eight categories: competence (professional development and training; 28%), career progression (promotion and advancement; 21.7%), well-being (self-concerns, managing stress, job satisfaction, motivation; 13.9%), and job change (finding a new job or setting up a company; 12.6%). The smaller goal categories included job security (continuing working, a permanent employment contract; 6.8%), organization (success and performance of the project, team, department, or company; 5.1%), finance (pay rise, bonus; 3.6%), and additional 8.3% of managers with no work goal mentioned. The goals varied from shorter term (e.g., finishing a project) to long-term goals (e.g., getting promoted within the next three years). Similar personal work goals have been identified by Wiese and Salmela-Aro (2008) in a study with 131 employees from a range of professional fields and employment positions. As opposed to the top leaders' work goals (Bateman et al., 2002), the goals focusing on the management and leadership tasks were less common among the young managers (i.e., organizational goals; 5.1%) who were still working mainly in lower or middle management positions. Instead, the young managers' goals reflected to a large extent career establishment that according to Super (1969, 1985, 1990) incorporates periods of stabilization, consolidation, and advancement.

The present study: Personal work goals in the interface of person–environment interactions

The social ecological model of well-being (e.g., Little, 2000, 2007) posits that personal goals reflect the continuous balancing of stable and dynamic personal and environmental features. Well-being and human flourishing is enhanced through the sustained pursuit of core goals in life. Since personal goals are influenced by social, cultural, and historical life contexts (e.g., Baltes, 1997; Freund & Riediger, 2006; Heckhausen & Schulz, 1995), which may change over time, previous personal goal research has also noted changes in goals across the life span. Opportunities and restrictions of a particular life stage channel personal goals, which can reflect the age-graded developmental tasks (Nurmi, 1992; Salmela-Aro, 2009; Salmela-Aro, Aunola, & Nurmi, 2007).

Brandtstädter (2009) has approached goal pursuit and adaptation as assimilative and accommodative processes, describing how a person adapts to the discrepancy between the factual circumstances (or real-self) and desired outcomes (or ideal-self). In brief, a person might strive to change the situation to the desired outcome (assimilation), or accommodation could be necessary by adapting personal goals to the prevailing situation. Goal reconstructions could be fundamental in adapting to the changing challenges of work environment and reflect ''career adaptability'' which highlights the

adaptive processes required in career development (Savickas, 1997). Therefore, we expected that the personal work goals of many of the participants have changed during the 2-year follow-up period, reflecting the ongoing negotiation of the opportunities and demands of life contexts.

Within the occupational domain, the psychosocial stressors in the work environment have been found to contribute to the contents of personal work goals in a cross-sectional study by Hyvönen and colleagues (2010). More specifically, perceiving the work environment as more strenuous (i.e., reporting high effort, low reward or high effort–reward imbalance) was associated with job change and well-being goals. These personal work goals were also related to the lowest level of occupational well-being (Hyvönen et al., 2009; Hyvönen et al., 2010). Thus, in line with personal goal theories (e.g., Brandtstädter, 2009; Little, 2007) and research (e.g., Hyvönen et al., 2010), reducing resources in the work context could instigate goal changes, for instance towards job change goals, in order to improve adaptation and occupational well-being.

The most favorable work environments (the highest level of reward and low effort–reward imbalance), in turn, were associated with organizational goals, which also related to the highest level of occupational well-being (Hyvönen et al., 2010). These findings paralleled, firstly, previous research on favorable psychosocial work environment and positive occupational well-being outcomes (e.g., Dai et al., 2008; Kinnunen et al., 2008), and secondly, research on goal appraisals indicating that favorable conditions for goal attainment at work predicted positive job attitudes (job satisfaction and organizational commitment) among new employees who were committed towards their goals in an 8-month follow-up study (Maier & Brunstein, 2001). Similarly, outcomes of longitudinal studies have indicated beneficial effects of goal attainment on affective well-being in the work context (e.g., Harris et al., 2003; Kehr, 2003). Thus, favorable changes in the psychosocial work environment (i.e., a reduction of psychosocial stressors) could be related to engaging in goals focused on the performance of the organization (i.e., organizational goals) reflecting the resources available that can be directed towards the managers' leadership task at hand.

Besides changes in the prevailing psychosocial work environment, also other changes, such as an unemployment period, changing jobs, or getting a promotion could instigate changes in the work environment and personal work goals. Therefore, these career events were also taken into consideration in the present study. In the previous study by Hyvönen et al. (2010), overcommitment had less contribution towards goal contents and thus, we focused on effort, reward, and effort–reward imbalance in the present investigation. More specifically, our research questions and expectations were as follows:

1. To what extent have personal work goals changed during the 2-year follow-up period (2006–2008)? We expected to find the same seven goal categories – competence, progression, well-being, job change, job security, organization, and finance – as were found two years earlier (see Hyvönen et al., 2009) (H1a). However, we also expected to see considerable changes in personal work goals of the participants reflecting the ongoing negotiation of the opportunities and demands in the young managers' life contexts (H1b).

2. Is there an association between changes in the psychosocial work environment (effort, reward, effort–reward imbalance) and changes in personal work goals? On the basis of previous theory (e.g., Little, 2007) and research (Hyvönen et al., 2010), we hypothesized that unfavorable changes in the work environment (low reward, high effort and high effort–reward imbalance) will be associated with engaging in

job change or well-being goals (H2a). We further expected that favorable changes in the work environment (high reward and low effort–reward imbalance) will be associated with engaging in organizational goals (H2b).

Method

Participants and procedure

The questionnaire study was conducted with two measuring points (Spring 2006 and 2008). In January 2006, the sample was taken from the membership registers of two Finnish national labor unions (the Union of Salaried Employees and the Union of Professional Engineers). The original sample included 1,904 members who were all younger than 36 years and whose professional title referred to a management position. Questionnaires were posted to the home addresses and 933 questionnaires were returned. Of the respondents, 186 were not in management or in employment (e.g., they were on maternity leave, studying, or had been unemployed for over 3 months) and therefore, these respondents were excluded from the final sample. The response rate was 43.4% in 2006 (for more detail, see Hyvönen et al., 2009). During the data collection in 2006, 126 participants had indicated that they no longer wished to participate in the research and therefore the follow-up questionnaires in 2008 were sent to 621 participants. In total, 433 questionnaires were returned, which yielded a response rate of 69.7%. That is, of the original sample ($n = 747$) in 2006, 58.0% of participants responded also in the follow-up study in 2008. Of the 433 respondents, 7 respondents were unemployed and 3 respondents had not responded to the study variables, and thus were omitted from the final sample ($n = 423$).

In 2006, the average age of the participants was 31 years (range 24–35 years, *SD* = 3.2 years) and a large majority of participants were men (83.9%). Of the participants, 7.8% were in upper, 49.4% in middle, and 42.8% in lower management. A large majority of the participants had a permanent employment contract (93.3%). Of the participants, 30.3% had experienced periods of unemployment or lay-offs during the period following their graduation up to 2006. Between 2006 and 2008, 7.0% of participants had experienced career disruptions (unemployment or lay-offs) and 28.9% ($n = 118$) of participants reported that they had changed jobs on their own initiation. In addition, 34.8% ($n = 142$) of participants had been promoted since 2006.

Attrition analyses

The attrition analysis showed that the respondents did not differ in terms of gender from nonrespondents in 2006 (see also Hyvönen et al., 2009). The data of the nonrespondents' age was only available for the members of the Union of Salaried Employees; these respondents ($n = 331$) did not differ from nonrespondents ($n = 379$) in age. In 2008, the respondents ($n = 433$) did not differ from the nonrespondents ($n = 314$) in terms of gender, $\chi^2(1) = 3.79$, *ns*; managerial level, $\chi^2(2) = 0.62$, *ns*; employment contract, $\chi^2(1) = 0.09$, *ns*; or career disruptions before 2006, $\chi^2(1) = 0.76$, *ns*. No significant differences emerged in relation to effort, $t(744) = -0.24$, *ns*; reward, $t(745) = 0.73$, *ns*; or ERI-ratio, $t(744) = -0.53$, *ns*. However, the χ^2-test indicated that participants with job security goals and those with no work goals were slightly underrepresented among the respondents who participated in 2008 and overrepresented among the respondents who had only participated in 2006, $\chi^2(7) = 17.2$, $p < .05$.

Measures

Personal work goals were inquired about with an open-ended question: "Write down your most important personal goal that relates to your work or career" (Hyvönen et al., 2009; Hyvönen et al., 2010). In 2006, three independent coders thematically categorized the participants' responses using a generic and data-driven qualitative analysis that did not rely on preset categories (e.g., Creswell & Plano Clark, 2007). Seven content categories of goals were found: competence, progression, well-being, job change, job security, organization, and finance. In addition to these, an eighth "no work goals" category was formed, consisting of participants who had either not mentioned a work goal or mentioned a goal unrelated to work or career. Each participant could be in only one of the eight goal categories (for further detail about the different stages of coding, see Hyvönen et al., 2009). A fourth independent coder applied the categorization outlined by the first three coders and the intercoder agreement of the goal categories was 92%. The AC_1 coefficient was .92 (CI = 0.88, 0.94), indicating an excellent intercoder agreement (Gwet, 2008). The same goal categories were also found in 2008 and no new categories emerged. In 2008, the intercoder agreement of the goal categories was 94% between two coders and the AC_1 coefficient .94 (CI = 0.90, 0.96). Of the two coders, one coder had been involved in the coding in 2006, but the other coder had not. These two coders decided the most suitable categories for the remaining 6% of goals together, which had been coded into different categories during the first stage of independent coding in 2008.

Effort, reward, and effort-reward imbalance were measured by a scale developed by Siegrist et al. (2004). The good construct and discriminant validity of the Finnish version of the ERI scale has been reported previously by Kinnunen et al. (2008). Effort was assessed with 5 items describing the demands in the workplace (e.g., "I have constant time pressure due to a heavy work load"). If the respondent answered the question affirmatively, they were asked to rate the impact of effort from "not at all distressed" to "very distressed". The scale ranged from 1 to 5: 1) does not apply; 2) does apply, but I am not at all distressed; 3) does apply, and I am somewhat distressed; 4) does apply, and I am distressed; 5) does apply, and I am very distressed. A higher mean score of effort indicates more effort invested at work. The internal consistency (Cronbach's alpha) for effort was .88 (M = 3.16; SD = 0.98) in 2006 and .90 (M = 3.05; SD = 1.00) in 2008.

Reward was assessed with 11 items describing esteem (5 items, e.g., "I receive the respect I deserve from my superiors"), career opportunities (4 items, e.g., "Considering all my efforts and achievements, my salary/income is adequate"), and job security (2 items, e.g., "My job security is poor", reverse scored). Similar rating procedure was used as described above for the effort scale, and a higher mean score of rewards indicates more rewards received at work. The Cronbach's alphas for reward were .86 (M = 4.04; SD = 0.73) in 2006 and .88 (M = 4.13; SD = 0.73) in 2008.

The imbalance of effort and reward is described as an ERI-ratio. The ERI-ratio is calculated by first multiplying the sum score of reward with a correction factor (see Niedhammer, Tek, Starke, & Siegrist, 2004; Siegrist et al., 2004). Because 5 items were used to assess effort, compared to 11 items to assess reward, the correction factor in this study was 0.4545. The sum score of effort is then divided by the corrected sum score of reward. A score close to "0" indicates favorable conditions, where received rewards outweigh the effort invested at work. In turn, a score over "1" indicates unfavorable conditions, where more effort is spent than rewards expected or received in return. As recommended by previous studies (Niedhammer et al., 2004; Siegrist et al.,

2004), a continuous variable of the ERI-ratio was used for the analyses. The mean of the ERI-ratio was 0.83 (*SD* = 0.39) in 2006 and 0.80 (*SD* = 0.40) in 2008.

Background variables measured in 2006 included gender (male/female), managerial level (upper/middle/lower), employment contract (permanent/fixed-term), and career disruptions before 2006 (no/some periods of unemployment or lay-offs since graduation). On the basis of the previous study with this sample of participants (Hyvönen et al., 2009; Hyvönen et al., 2010), these background variables were related to the outcome measures used, and therefore, were also controlled for in this study. Career events measured in 2008 incorporated information about the work-related experiences of participants between 2006 and 2008 and included three dichotomous variables: career disruptions 2006–2008 (no/some periods of unemployment or lay-offs); job changes on one's own initiation 2006–2008 (no/yes); and promotions 2006–2008 (no/yes).

Analyses

Spearman correlation coefficients were calculated for categorical variables (gender, managerial level, employment contract, career disruptions before 2006, career disruptions 2006–2008, job changes 2006–2008, promotions 2006–2008) and Pearson correlation coefficients for continuous variables (effort, reward, ERI-ratio). The changes in the most important personal work goals (i.e., competence, progression, well-being, job change, job security, organization, and finance) were investigated by forming two goal change groups for each goal category: 1) Participants who had not mentioned the goal in 2006, but mentioned it in 2008 (i.e., engaged in the goal); 2) Participants who mentioned the goal in 2006, but not in 2008 (i.e., disengaged from the goal). Separate analyses were performed for the two types of goal change groups in order to compare the differences between the goal categories.

The two goal change groups were investigated in relation to changes in effort, reward, and ERI-ratio by means of the Analyses of Covariance (ANCOVA) where all background variables could be controlled for and partial eta-squares (η^2) reported. In order to compare the degree of change in the ERI components, difference scores were computed to describe the change between 2006 and 2008. The difference scores (i.e., the dependent variables in ANCOVA analyses) were formed by deducting the sum score of an ERI component in 2006 from the sum score in 2008 (e.g., reward in 2006 was deducted from reward in 2008). The goal categories in 2008 were the between–subjects factors when calculating the differences in the degree of change in the ERI components among the participants who engaged in a goal, whereas the goal categories in 2006 were the between–subjects factors when calculating the differences among the participants who disengaged from a goal. Bonferroni pairwise comparisons were calculated to detect which goal categories differed from each other in the degree of change in relation to the investigated ERI component.

Results

Descriptive results

Table 1 depicts the intercorrelations among background variables, effort, reward, and ERI-ratio. Female gender, lower managerial levels, and having a fixed-term employment contract were related to lower effort and ERI-ratio in 2006, but only lower managerial levels were related to lower effort in 2008. Job changes 2006–2008 related to lower reward in 2006 and to lower effort and ERI-ratio in 2008. In addition,

experiencing career disruptions 2006–2008 correlated with lower effort and ERI-ratio in 2008. Furthermore, promotions 2006–2008 correlated with higher effort and reward in 2008. Of the background variables, career disruptions before 2006 had no association with any of the ERI components. Nevertheless, career disruptions before 2006 were controlled for in the further analyses because of its associations with personal work goals in a previous study (see Hyvönen et al., 2009).

– Insert Table 1 about here –

Changes in personal work goals

The distribution of personal work goals in 2006 and 2008 is shown in Table 2. In line with our expectations (H1a), we found the same goal categories in 2008 as in the first study phase in 2006. The sizes of the categories also remained similar in both study phases except for the category with organizational goals which almost doubled in size. Our expectation regarding goal change (H1b) received also support since the majority of participants (67%; $n = 285$) changed their most important personal work goal during the follow-up period. As can be seen also in Table 2, the percentages of participants with similar goals in both study phases were fairly low ranging from 12.5% (participants with no work goal) to 45.5% (participants with competence goals).

– Insert Table 2 about here –

Changes in the ERI components and personal work goals

The results of ANCOVAs can be seen in Table 3 showing the relationships between goal change groups and changes in the ERI components in addition to adjusted means and standard deviations from both study phases. These analyses were adjusted for covariates of background variables (gender, managerial level, employment contract, career disruptions before 2006, career disruptions 2006–2008, job changes 2006–2008, and promotions 2006–2008). First, among participants who engaged in a goal, goal categories in 2008 had a significant main effect only on the degree of change in reward. Second, among the participants who disengaged from a goal, the goal categories in 2006 had a significant main effect on the degree of change in effort, reward, and ERI-ratio.

Our expectation (H2a) received partial support, since unfavorable changes in the work environment (i.e., a decrease in reward) among participants engaging in job change goals in 2008 significantly differed from participants who engaged in competence or organizational goals in 2008. That is, participants who engaged in competence or organizational goals reported an increase in reward, a finding which was also partly in line with our expectations (H2b) regarding favorable changes in relation to organizational goals. However, Bonferroni comparisons did not detect significant differences between the goal categories in the degree of change in effort among participants who engaged in goals in 2008, although the *F*-value reached a level of significance (see Table 3). In addition, favorable changes, that is, an increase in reward and a reduction in ERI-ratio, characterized disengaging from job change goals as the most important personal work goal in 2006, which significantly differed from disengaging from job security goals that were linked to a reduction in reward and an increase in ERI-ratio. The degree of positive change in reward among participants who disengaged from job change goals was also significantly higher than among participants who disengaged from competence goals as the most important personal work goal in 2006: A slight reduction in reward was observed among participants who disengaged from competence goals.

– Insert Table 3 about here –

Discussion

The present study shed light on the relations between the psychosocial work environment and personal work goals over a 2-year follow-up period and provided support for the following expectations. The same categories of personal work goals were found in 2008 as in 2006 without any new goal categories emerging, but the personal work goals were also observed to change. The clearest results on the association between changes in psychosocial work environment and personal work goals were seen in regard to a reduction in reward observed among participants who engaged in job change goals, as opposed to the participants who engaged in competence or organizational goals who reported an increase in reward. Furthermore, favorable changes were reported in the psychosocial work environment, including an increase in reward and a reduction in effort–reward imbalance, among participants who disengaged from job change goals, particularly when compared to the participants who disengaged from job security goals reporting a reduction in reward and an increase in effort–reward imbalance. These results indicating that work characteristics measured within the context of the ERI model (Siegrist, 1996) associate with the goals employees pursue at work over the 2-year follow-up period can be considered also important from the perspective of occupational well-being: On the basis of previous studies, the contents of personal work goals associated with well-being at work (Hyvönen et al. 2009; Hyvönen et al., 2010). Therefore, occupational well-being could be addressed by taking the pursuit of personal work goals in the interface of environmental and person interactions into account.

Prominent personal work goals among young managers
The personal work goals across the different goal categories changed considerably as was expected on the basis of previous theories proposing that the contextual features – with changing demands and opportunities – are manifested in the pursuit of personal goals (e.g., Little, 2007; Salmela-Aro, 2009). However, the most prominent personal work goals were those towards competence and progression. Around 40% of the participants in these categories focused on competence or career advancement also at the time of the follow-up study. These goals could reflect vocational development related to career establishment in young adulthood (e.g., Super, 1969, 1985; see also Savickas, 1997). Especially for young managers, the pursuit of a career can be a primary goal in their current life context and they may feel that career decisions are central to their future life design: For example, work-related personal goals become a central focus of this age group in addition to goals related to family and health (Salmela-Aro et al., 2007). The assimilation processes (Brandtstädter, 2009), for instance persistence towards professional development, could therefore be particularly typical in young adulthood. Furthermore, competence and progression goals have been linked to reasonably good rewards and occupational well-being when compared to, for example, well-being and job change goals (Hyvönen et al., 2010). There might be less pressure to change these goals as a result of psychosocial stressors at work. In accord with the social ecological model (Little, 2000, 2007), these participants might represent the employees in managerial positions in young adulthood working in an environment where the pursuit of personally salient, age-relevant goals can be sustained, which is also manifested in advantageous occupational well-being.

A noteworthy observation was also that the number of participants who mentioned organizational goals almost doubled during the follow-up period ($n = 24$ in

2006, and *n* = 43 in 2008). Through increasing work experience and career progression, young managers can gain a wider perspective of their responsibilities and role within the organization. That is, the increasing number of goals towards performance and success of the team or organization could signify that more participants have reached a level where they at present feel satisfied with their competence and professional position. In previous studies, organizational goals have in fact been associated with the most favorable work environment as well as with the highest level of occupational well-being (Hyvönen et al., 2010).

Changes in psychosocial work environment and personal work goals

Of the different features of the psychosocial work environment investigated, rewards from employment showed the strongest associations with changes in personal work goals. Attention was especially drawn towards participants with job change goals. This study suggests that a reduction of reward over the 2-year follow-up is linked to engaging in job change goals, a finding which reiterated the results of a previous cross-sectional study (Hyvönen et al., 2010). Job change goals could be a response to a reduction in resources that, according to Brandtstädter (2009), can facilitate accommodative processes towards alternative goals. In a similar vein, previous research has found that perceiving a work environment as unfavorable for attaining personal goals predicted lower organizational commitment among those employees who were committed to their goals (Maier & Brunstein, 2001). Therefore, it is possible that the participants experienced their work environment as increasingly unsupportive of the attainment of personal work goals, for instance towards competence or career progression, and began to reevaluate their options. Moreover, on the basis of previous research, these increasing psychosocial stressors at work as manifested in reducing rewards could have a direct impact on occupational well-being (e.g., Dai et al., 2008; Willis et al., 2008), as well as have an indirect effect through job change goals on higher burnout and lower work engagement (Hyvönen et al., 2010). A change towards a more favorable work environment was in turn observed particularly among those participants who disengaged from job change goals; in line with previous research (Hyvönen et al., 2010), an increase in reward was also observed together with a reduction in effort–reward imbalance.

Similarly, the participants engaging in competence or organizational goals considered their work environment as more rewarding in the second study phase in 2008. This result was also in line with the previous study (Hyvönen et al., 2010) and therefore provided further evidence for the key role of rewards in the workplace in regard to promoting goals that encourage commitment to the organization, as well as to professional development and training in conjunction with a good level of well-being. This study gave less support for the role of effort in changes in personal work goals. Although statistically significant differences in changes in effort were detected among participants who disengaged from goals, no significant differences emerged in pairwise comparisons between the personal work goals. This result could refer to the point that managers have accepted the fact that their job is psychologically demanding (Kinnunen et al., 2008) and therefore rewards might be more pivotal in regard to personal work goals.

These changes in personal work goals – that is, disengaging from job change and/or engaging in competence or organizational goals – appear generally to be positive processes reflecting goal accommodation (Brandtstädter, 2009) and career adaptability (Savickas, 1997). A change in the psychosocial stressors of the work environment (e.g.,

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by changing jobs or through improvements in the existing workplace) could be creating new opportunities for directing personal resources at work. Alternatively, it is possible that participants who began focusing on more performance-oriented goals perceived also the stressors at work alleviating and occupational well-being improving.

In contrast, the participants who disengaged from job security goals reported a reasonably favorable psychosocial work environment in the study baseline, but perceived unfavorable changes by the second study phase seen as a reduction in reward and an increase in effort–reward imbalance. According to the previous study by Hyvönen et al. (2009), participants with job security goals were also more likely to be in fixed-term employment and had experienced career disruptions. These participants might perceive that their expectation regarding job security cannot be met in the current work environment, which could partly account for these changes. This finding could also reflect that continuing with the same employer was no longer considered to be advantageous. Through a qualitative inspection of the personal work goals of these participants, better opportunities or a less stressful working environment were mentioned frequently (i.e., participants shifted towards progression, well-being, and financial goals).

Limitations and directions for future research

Several limitations also restrict the inferences that can be drawn on the basis of the findings. First, in terms of the generalizability of the results, having a specific target population (i.e., young Finnish managers who were mainly men and employed in technical fields in permanent employment contracts), also impacts the extent to which these findings can be applied to other employees in other countries with different employment opportunities. For instance, organisational goals in this research refer quite specifically to leadership and managerial tasks, which were not identified as an independent category of personal work goals in the study by Wiese and Salmela-Aro (2008). The second main limitation of the research was that only the most important personal work goals were investigated, although managers are likely have multiple personal work goals (Bateman et al., 2002). Therefore, this study can highlight findings only in relation to the participants' central focus in the workplace rather than to add to knowledge regarding the more complex goal structures; for instance, other personal work or life goals could also be as important. Participants might also prioritize goals differently at different points in their career. Third, this study cannot establish causal relationships between the psychosocial stressors at work and personal work goals, since we were only able to examine concurrent changes in psychosocial environment and work goals. It should also be noted that drawing inferences on the basis of some of these findings should be done with caution due to the small group sizes, such as the group of participants disengaging from job security goals.

One of the most informative avenues for future research would be to follow changes in the psychosocial work environment and personal work goals over a longer period of time. For instance, it could be that for some participants (e.g., participants with job change goals) accumulating work stressors could jeopardize career development and well-being in the long run. Also, organizational goals could reflect development promoted through longer work experience. In addition to important career events, other life events and transitions, such as the transition to parenthood, could have a significant impact on personal work goals among this age-group of participants and therefore should be taken into consideration. An important perspective could also be offered by dispositional goal orientation (DeShon & Gillespie, 2005) and goal

appraisals: For example, goal appraisals have been found to relate to the contents of work goals (Hyvönen et al., 2009), as well as to well-being over and above the characteristics of the work environment (Pomaki et al., 2004). Particularly, the reward dimension of the ERI model (Siegrist, 1996) played a significant role in changes in personal work goals and therefore rewards should be given a deeper inspection. In a previous study by van Vegchel, de Jonge, Bakker, and Schaufeli (2002), no significant correlations were found between different rewards (salary, esteem, and job security), and moreover, they had specific contributions to effort–reward imbalance, as well as to health indicators. Therefore, it would be worthwhile to consider the contribution of individual reward factors on personal work goal pursuit and occupational well-being.

In conclusion, our findings suggest that the occupational stress theory of effort–reward imbalance (Siegrist, 1996) and Little's social ecological model (2000, 2007) can provide a theoretical backdrop for investigating the relationship between the psychosocial stressors at work and personal work goals of employees. Overall, the personal work goals changed among these participants in the early phases of their career. The associations between the psychosocial work environment and the changes in personal work goals were most apparent in relation to job change goals: Unfavorable changes in the work environment (a reduction in reward) were associated with engaging in job change goals, whereas favorable changes (an increase in reward and a decrease in effort–reward imbalance) were associated with disengaging from job change goals. A further practical angle of these results suggests that with good career opportunities, job security, and esteem-building, organizations can seek to support young managers' endeavor in further professional development and training, as well as their commitment and focus on organizational goals, in the early stages of their careers.

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Table 1
Correlation Coefficients for Study Variables (n = 396–423)

Variables (range)	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender (1=male, 2=female)[1]												
2. Managerial level (1=upper, 3=lower)[1]	.05											
3. Employment contract (1= permanent, 2=fixed-term)[1]	.04	.15**										
4. Career disruptions before 2006 (1=no, 2=yes)[1]	-.02	.16**	.14**									
5. Career disruptions 2006–2008 (1=no, 2=yes)[1]	-.05	-.07	.28***	.11*								
6. Job changes 2006–2008 (1=no, 2= yes)[1]	-.03	-.11*	.00	.00	.19***							
7. Promotions 2006–2008 (1=no, 2=yes)[1]	-.06	-.05	-.10	-.05	-.07	-.01						
8. Effort (1–5) in 2006[2]	-.17**	-.20***	-.17***	-.09	-.08	.02	.02					
9. Reward (1–5) in 2006[2]	-.05	.00	-.01	-.07	-.06	-.14**	.08	-.33***				
10. ERI-ratio in 2006[2]	-.11*	-.14**	-.14**	-.04	-.05	.09	-.02	.80***	-.77***			
11. Effort (1–5) in 2008[2]	-.09	-.10*	-.09	-.04	-.16**	-.21***	.15**	.44***	-.12*	.34***		
12. Reward (1–5) in 2008[2]	-.07	-.04	.03	-.08	.06	.10	.14**	-.21***	.36***	-.34***	-.37***	
13. ERI-ratio in 2008[2]	-.05	-.08	-.10	.00	-.16**	-.20***	.06	.36***	-.27***	.39***	.82***	-.76***

Note: Spearman correlations for categorical variables and Pearson correlations for continuous variables
[1] Categorical variable
[2] Continuous variable
* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2

The Distribution of Personal Work Goals in 2006 and 2008 (n = 423)

2006 \ 2008	1. Competence (n = 120; 28.4%)	2. Progression (n = 90; 21.3%)	3. Well-being (n = 58; 13.7%)	4. Job change (n = 56; 13.2%)	5. Job security (n = 23; 5.4%)	6. Organization (n = 43; 10.2%)	7. Finance (n = 18; 4.3%)	8. No work goal (n = 15; 3.5%)
1. Competence (n = 134; 31.7%)	**61** (45.5%)[a]	25	17	11	4	10	3	3
2. Progression (n = 94; 22.2%)	14	**36** (38.3%)[a]	8	18	1	11	2	4
3. Well-being (n = 56; 13.2%)	14	9	**11** (19.6%)[a]	11	4	4	2	1
4. Job change (n = 57; 13.5%)	14	6	9	**13** (22.8%)[a]	4	6	4	1
5. Job security (n = 21; 4.9%)	1	6	4	1	**4** (19.0%)[a]	1	2	2
6. Organization (n = 24; 5.7%)	7	3	3	0	2	**7** (29.2%)[a]	1	1
7. Finance (n = 13; 3.1%)	2	2	4	1	1	0	**3** (23.1%)[a]	0
8. No work goal (n = 24; 5.7%)	7	3	2	1	3	4	1	**3** (12.5%)[a]

Note: [a] The number of participants who focused on similar personal work goals in both study phases

Table 3

Adjusted Means and Standard Deviations at Time 1 and Time 2, and F-values based on Difference Scores (T2–T1) for Effort, Reward and ERI-ratio Shown for Participants who Engaged in and Disengaged from Goals

		Effort		Reward		ERI-ratio	
		Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
	n	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Engaged in							
1. Competence	59	3.14 (0.97)	2.90 (0.99)	4.06 (0.82)	4.42 (0.62)	0.84 (0.45)	0.70 (0.37)
2. Progression	54	3.12 (0.98)	2.92 (0.99)	4.08 (0.73)	4.11 (0.67)	0.81 (0.35)	0.76 (0.36)
3. Well-being	47	3.21 (0.97)	3.22 (0.98)	4.00 (0.65)	4.00 (0.75)	0.86 (0.38)	0.86 (0.36)
4. Job change	43	3.10 (1.06)	3.07 (1.05)	4.04 (0.71)	3.78 (0.88)	0.83 (0.43)	0.89 (0.52)
5. Job security	19	3.47 (0.99)	2.94 (1.04)	4.02 (0.72)	4.05 (0.77)	0.93 (0.41)	0.78 (0.39)
6. Organization	35	3.15 (0.93)	2.98 (0.95)	4.03 (0.83)	4.39 (0.51)	0.85 (0.41)	0.75 (0.37)
7. Finance	15	3.17 (1.03)	3.18 (1.30)	3.57 (0.87)	3.66 (0.97)	0.95 (0.42)	0.98 (0.60)
F-value Partial η^2		.788, *ns.*		3.01** .07	4 < 1,6 [a]	.31, *ns.*	
Disengaged from							
1. Competence	73	3.13 (0.96)	2.99 (1.00)	4.11(0.70)	4.06 (0.70)	0.81 (0.37)	0.78 (0.38)
2. Progression	58	3.00 (1.01)	2.78 (1.00)	4.09 (0.75)	4.18 (0.88)	0.79 (0.34)	0.75 (0.48)
3. Well-being	45	3.48 (1.04)	3.08 (1.03)	3.96 (0.66)	4.06 (0.72)	0.92 (0.42)	0.82 (0.45)
4. Job change	44	3.46 (0.88)	3.07 (1.01)	3.68 (0.81)	4.15 (0.75)	1.01 (0.46)	0.78 (0.34)
5. Job security	17	2.82 (0.67)	3.19 (0.83)	4.35 (0.54)	3.94 (0.77)	0.67 (0.21)	0.89 (0.41)
6. Organization	17	2.59 (1.08)	2.79 (1.17)	4.57 (0.31)	4.44 (0.64)	0.58 (0.25)	0.66 (0.41)
7. Finance	10	3.03 (1.05)	3.42 (1.05)	4.12 (0.32)	4.26 (0.55)	0.74 (0.28)	0.84 (0.33)
F-value Partial η^2		2.23* .05		3.43** .08	4 > 1,5 [a]	3.09** .07	4 < 5 [a]

Note: *F*-values calculated using difference scores (T2–T1) and background variables (gender, managerial level, employment contract, career disruptions before 2006, career disruptions 2006–2008, job changes 2006–2008, and promotions 2006–2008) adjusted for; [a] Bonferroni comparisons; * $p < .05$; ** $p < .01$

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