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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.

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

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 ANCO-VA. 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	1¹	2¹	3¹	4¹	5¹	6¹	7²	8²	9²	10²	11²	12²	13²	14²	15²	16²	17²	18²
1. Gender (l = male 2 = female)																		
2. Managerial level (l = upper level, 3 = lower level)	−.01																	
3. Organization (l = private, 2 = public)	.06	−.02																
4. Employment contract (1 = permanent, 2 = fixed-term)	.06	.18***	.07															
5. Career instability (l = no, 2 = yes)	−.02	.15***	.05	.14**														
6. Children (l = 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; ¹Spearman 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

Katriina Hyvönen, Taru Feldt, Asko Tolvanen, & Ulla Kinnunen

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).
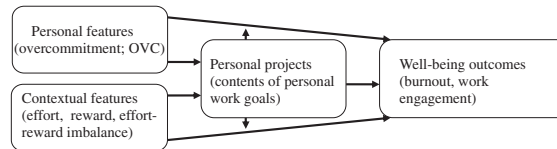
Fig. 1. The theoretical model of the study showing the investigated relationships based on Little's (2000, 2007) social ecological model of well-being and the Effort–Reward Imbalance model (Siegrist, 1996).

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), χ^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, $\chi^2 (49) = 161.60$, $p < .001$. 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, $\chi^2 (49) = 144.38$, $p < .001$ (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, 18.40)	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.
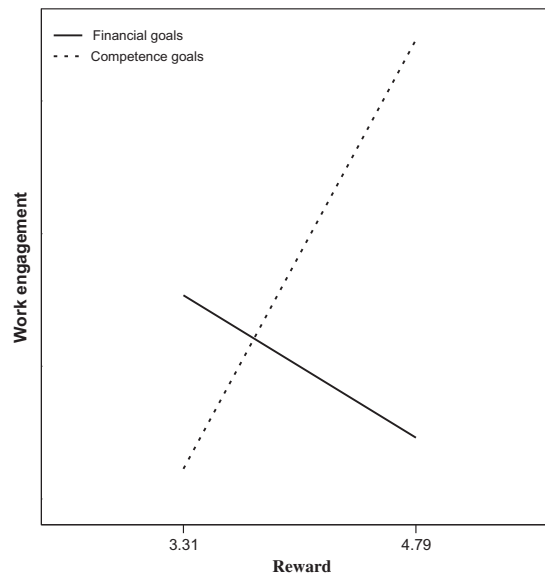

Fig. 2. Showing an example of the moderating effect of financial goals between reward and work engagement.

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).

<div align="center">– Insert Table 1 about here –</div>

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).

<div align="center">– Insert Table 2 about here –</div>

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.

<div align="center">– Insert Table 3 about here –</div>

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.,

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.

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