Understanding Employability from a Multilevel Perspective:

The role of Job Crafting, FTP, and Organizational Climate

Evy A. Kuijpers, BSc

Tilburg University, Research Master Individual Differences & Assessment

Supervisors: dr. Dorien Kooij, prof. dr. René Schalk

31 July, 2018

Abstract

The current study extends previous work on employability by examining the associations of both individual and organizational level constructs as well as cross-level interactions between the two. We made use of a multilevel design to examine how future-time perspective (FTP) and job crafting as individual first-level factors, and organizational climate as second-level factor relate to perceived internal and external employability. Furthermore, this study looked into the mediating role of job crafting to get further understanding in the process through which FTP and organizational climate influence perceived employability. In addition, we incorporated a cross level interaction between FTP and organizational climate on job crafting. Data was collected within 24 healthcare institutions across the Netherlands (N = 2697). Results revealed that FTP (opportunities), job crafting (increasing social and structural resources), and organizational climate are associated with perceived internal employability, and FTP (opportunities and time) and job crafting (increasing social and structural resources) are associated with perceived external employability. Additionally, mediation analysis revealed that job crafting (increasing social and structural resources) partly mediated the relationship between FTP (opportunities) and perceived internal and external employability. This study contributes to existing literature by showing that both individual (i.e. job crafting and FTP) and organizational (i.e. climate) factors contribute to perceived employability.

Keywords: employability, job crafting, FTP, organizational climate, multilevel

Understanding Employability from a Multilevel Perspective:

The role of Job Crafting, FTP, and Organizational Climate

As workforces are aging and careers are becoming more extended and more complex (Vuori, Toppinen-Tanner, & Mutanen, 2012), there is an increased emphasis on continuous learning and self-management (e.g., Akkermans, Schaufeli, Brenninkmeijer, & Blonk, 2013). Moreover, globalization and technological change have led to a rise in the flexibility of the labor market and the aging workforce requires workers to stay employed longer than ever before. All in all, the economic and social context in which organizations operate have led to an increasing need for adaptive and flexible workers (Berntson, Sverke, & Marklund, 2006). One important concept that contributes to creating and maintaining effective employment, and allows organizations to meet the competitive challenges of this new millennium is employability.

Employability is about being capable of getting and keeping fulfilling work (Hillage & Pollard, 1998). Whereas external employability refers to the ability and willingness to switch to a similar or different job in another firm, internal employability refers to a worker's ability and willingness to remain employed with the current employer (Akkermans et al., 2013). In the current study the focus will be on perceived employability, which concerns the employee's own perspective on their employability. Employability is a critical requirement both for organizations that need to compete in a changing environment, and for individuals who aim for lifelong employment (Nauta, Vianen, Heijden, Dam, & Willemsen, 2009). It is essential for employees to be able to be adaptive and skilled so they can be employed across different jobs and stay active in the dynamic labour market (Bakker, Tims, & Derks, 2012; Berntson & Marklund, 2007). Likewise, organizations can benefit from employable workers since it facilitates the reallocation of talent and resources (Fallick, Fleischman, & Rebitzer, 2006). Hence, especially in the current

changing work environment and increasing need for flexible and long employed workers, there is a growing emphasis on employability.

Although many employability models have been developed, few studies have tested associations of employability empirically. Wittekind, Raeder, and Grote (2010) have analysed several employability models and revealed that most research agrees that building human capital (e.g. knowledge, skills, and abilities) plays an important role in determining employability (e.g., Van den Berg & van der Velde, 2005). This is in line with the human capital theory (Becker, 1993) that has its focal point in individual resources, and in particular in the contribution of workers' investment in learning opportunities (Berntson et al., 2006). Broadly speaking, the human capital theory states that people invest in themselves in diverse ways, not for the sake of present gratification, but for the sake of future returns (Blaug, 1976). Following this theory, individuals' investment in human capital would be an important factor in determining possibilities for acquiring new employment, since increasing resources can contribute to the productivity and adaptability of the worker (Olaniyan & Okemakinde, 2008).

However, there are striking differences in the degree to which individuals are inclined to consider distant outcomes in choosing present behaviours, and this has consequences for the extent to which they are willing to invest in their human capital. Researchers are starting to acknowledge that time, and particularly perceptions of that time, plays an important role in determining the degree of individual competence investment (Sonnentag, 2012). Therefore, it depends heavily on the worker's perspective on the remaining time left in their careers (future time perspective, FTP; de Bilde, Vansteenkiste, & Lens, 2011), whether they are inclined to engage in learning behaviours. Accordingly, since future oriented employees engage more in career and future-related activities (e.g. investing in training) which subsequently will lead to a

more desirable future state (i.e. a more employable worker), we argue that FTP is related to perceived employability.

Moreover, in addition to personal factors, organizational factors can also play a role in explaining employability. Previous research on employability has primarily focused on individual level constructs, without acknowledging that the organizational context can play a considerate role in determining employee behaviour (e.g. competence development; Gold, Malhotra, & Segars, 2001). However, employees do not work in isolation, and the context surrounding them has a substantial influence on how they behave (Mowday & Sutton, 1993). Organizational climate has therefore been mentioned for its role in organizational learning (Alavi and Leidner, 2001). Furthermore, although the study of Estiénne (1997) examined which characteristics of the organizational climate can support employability, he did not empirically test *whether* such a climate actually has an effect on employability. Therefore, the current study will examine the association between organizational climate and perceived employability. In an age-inclusive climate, people might feel stimulated to improve their competencies, prepare for change, and angle for new positions since they become aware of the fact that they have career opportunities for both now and in the future (Kelan, 2008). As such, it is plausible that organizational climate is related to employability and increases the influence of FTP.

In addition, as personal initiative becomes more important for career development, job crafting might be another crucial factor in creating and maintaining employment. Prior studies have shown that job crafting, which refers to the employee's flexibility and active participation in redesigning their jobs, may enhance employability (Bakker et al., 2012; Lauver & Kristof-Brown, 2001). Job crafting in terms of increasing social and structural resources and challenge demands, can inspire employees to explore their options for learning and taking steps to work on

their own development (van den Heuvel, Demerouti, & Peeters, 2015; Tims, Bakker, & Derks, 2012). It can enable employees to be flexible and potentially expand work boundaries in order to grow and gain competence (Tims, Bakker, & Derks, 2012). In this way job crafting enables workers to develop themselves to facilitate optimal use of their qualities and capabilities, which may subsequently make them more employable (Van der Heijden, 2002). This is in line with the human capital approach as it facilitates the workers' investment in their human capital. Moreover, building on this line of reasoning, job crafting is also expected to partially mediate the relationship between FTP and perceived employability, since FTP has been shown to be an important antecedent of proactive behaviour and job crafting (Dwivedi & Rastogi, 2017; Kooij, Tims, & Akkermans, 2017). Likewise, organizational climate is thought to also be indirectly related to employability via job crafting since a supportive age-inclusive climate will make it evident to employees that it is important to take own responsibilities for their learning processes and to be proactive and anticipatory.

This study has two major contributions; firstly, this study contributes to the limited knowledge about multilevel factors associated with employability. Although recent evidence shows that employability is related to knowledge, skills, abilities, and other person-specific factors, empirical evidence about multilevel associations is still lacking (Chun, 2016). Employees do not work in isolation and as such it is crucial to incorporate multilevel theories that illuminate the context surrounding individual-level processes (Mowday & Sutton, 1993). Such multilevel theories allow for a deeper and richer portrait of organizational life that acknowledges the influence of the organizational context on individuals' actions and perceptions (Klein, Tosi, & Cannella Jr, 1999). Secondly, the present study contributes to the literature on job crafting. Previous studies have predominantly focused on individual factors related to the

ability to engage in job crafting (i.e., proactive personality and self-efficacy) rather than individual factors related to the motivation and orientation to craft a job (i.e. FTP). Moreover, existing research has primarily examined individual constructs as antecedents of job crafting behaviors (e.g. need for control, Wrzesniewski & Dutton, 2001; self-efficacy, Tims & Bakker, 2010) or constructs related to job characteristics (Oldham & Hackman, 2010), however, organizational level associations are largely neglected.

Future Time Perspective and Employability

People differ in the consistency and persistence with which they project the future, and therefore there are differences in the extent to which they are inclined to consider distant outcomes in choosing present behaviours (Locke, 1975). Future time perspective (FTP) describes how much time individuals believe they have left in their future and how they perceive that time (Zacher & Frese, 2009). When examining FTP in the work context, occupational FTP is often used, which refers to the workers' perceptions of remaining time and opportunities in their careers (Henry, Zacher, & Desmette, 2017).

The socioemotional selectivity theory (Carstensen, 1992) states that as time horizons shrink, people become increasingly selective, and invest greater resources in emotionally meaningful goals and activities. When time is perceived as limited, emotionally meaningful goals (e.g. getting recognition) become relatively more important because they are typically associated with achieving short-term benefits (Lang & Carstensen, 2002). In contrast, when time is perceived as expansive, goals aimed at optimizing the future are prioritized. Future oriented workers might therefore be more inclined to engage in behaviours that contribute to their employability. More specifically, workers who are more oriented towards the future place a great value on doing future-oriented tasks (e.g. devoting financial resources to training), which will

often lead to immediate outcomes that are relatively undesirable (e.g. loans, demands on personal time) but ultimately lead to a more desirable future state (e.g. a more employable worker; Joireman, Shaffer, Balliet, & Strathman, 2012). In a more general sense, one could argue that FTP would affect the motivation to learn, which enables employees to build upon their human capital and enhance their employability (Nuttin, 2014). This is supported by the findings of Froehlich, Beausaert, and Segers (2015) that show that FTP has an indirect positive effect on employability through learning. That is, perceptions of the opportunities of one's future working life can trigger learning from others and, in turn, can help employees to enhance their employability.

Kooij, Kanfer, Betts, and Rudolph (2018) provide empirical support for the widespread role that FTP plays in motivation and behaviour. They found that FTP was positively related to achievement, well-being, health improving behaviours, and negatively related to risk-taking behaviour (Kooij et al., 2018). Moreover, Simons, Vansteenkiste, Lens, and Lacante (2004) and Miller and Brickman (2004) found that the perception of more opportunities ahead increases the instrumentality of individuals' learning behaviour. This is supported by the meta-analytic findings of Simons et al. (2004) that show that people with an extended FTP perceive their present behaviour as more instrumental because it helps them achieve a broader range of both immediate and future goals. This could be an explanation why an extensive future time perspective is associated with increased likelihood of completing tasks (Bembenutty & Karabenick, 2004), increased persistence to study (Simons, Vansteenkiste, Lens, & Lacante, 2004), and better academic performance (De Volder & Lens, 1982).

Furthermore, Froehlich, Beausaert, and Segers (2016) showed that FTP mediates the negative relationship between age and employability; older people tend to be less employable,

but this might not be case when they have an extended FTP. In general, older workers perceive less remaining opportunities at work and consequently, they consider learning and development activities at work as less valuable and perceive themselves as less employable and (Henry et al., 2017). Based on this literature, we formulated the following hypothesis:

Hypothesis 1: Future-time perspective (FTP) is positively related to perceived a) internal and b) external employability.

Organizational Climate and Perceived Employability

The fact that employees do not work in isolation, and the context surrounding them has a substantial influence on how, why, and when they engage in certain work behaviours calls for a more integrative approach that incorporates both individual and organizational factors. Organizational climate describes the shared perceptions of employees (Reichers & Schneider, 1990), and signals the type of behaviour that is expected from them. There are many types of climate and they can differ considerably between organizations (Schneider, Ehrhart, & Macey, 2013). In this study we focus on a specific climate, namely the age-inclusive climate. In an age-inclusive climate employees do not feel discriminated because of their age and they believe that the organization offers equal opportunities to all employees, regardless of their age (Boehm, Kunze, & Bruch, 2014).

Although learning and the development of competencies are inevitably individual processes (Kihongo, 2011), it is strongly influenced by the organizational climate (Van Der Heijden, Boon, Van der Klink, & Meijs, 2009). This can be understood from the Signalling Theory (Spence, 1978), which states that observable actions by an organization can be interpreted as signals of less observable characteristics (Casper & Harris, 2008). On a similar note, employees might use cues or signals from the organization to draw conclusions about the

behaviour that is expected of them. For example, organization's age-diversity policies may signal to their employees that as age increases, their chances to be included in career development do not decrease, and therefore they might be more motivated to continue investing in themselves and their careers (Suazo, Martínez, & Sandoval, 2009).

When companies are supportive of employees from all ages and apply HR practices equally, employees will be more motivated to be proactive and engage in career development (Zacher & Yang, 2016). In an age-inclusive climate employees believe that they are provided with opportunities to build upon their human capital, and may therefore become aware of their career opportunities. In addition to this increased awareness, in a climate that emphasizes the inclusion of older workers, employees might also feel more pressured to improve their competencies, prepare for change, and angle for new positions (Kelan, 2008). This is supported by a study of Nauta and colleagues (2009), which looked into organizational level predictors of employability. These researchers focused on so-called ´employability culture´, which concerns the extent to which organizations stimulate the individual development and employability orientation of their workers. Their findings show that an employability culture was positively associated with the employability orientation of their workers, suggesting that an organizational culture can stimulate employees to engage in task changes and development opportunities, which may subsequently make them more employable. On the basis of the previously described literature, we formulated the following hypothesis:

Hypothesis 2: An age-inclusive climate is positively related to perceived a) internal and b) external employability.

Job Crafting and Perceived Employability

Since temporary work is increasing and job security is declining (Frese & Fay, 2001),

individual employees are increasingly expected to take responsibility for managing their own careers (e.g., Akkermans et al., 2013). In order to cope with the rapidly changing environment employees need to be adaptive and proactive (Fugate, Kinicki, & Ashforth, 2004). Job crafting is defined as the self-initiated changes that employees make in their job demands and resources in order to attain and optimize personal work-goals (Tims et al., 2012). In this study we will look at job crafting in terms of three dimensions, as defined by Tim and colleagues (2012): increasing social resources, increasing structural resources, and increasing challenging demands.

Given the importance of employability for organizations and employees alike, there is an increasing need to encourage employees to control their own career development (van den Heuvel, Demoerouti, & Peeters, 2015). As personal initiative becomes more important for career development, job crafting can be expected to contribute to individuals' employability since proactive behaviours can lead to competence development and therefore builds upon human capital. In this sense, employees may craft their work in such a way that time and space is made for work activities that facilitate personal development. Accordingly, workers that engage in job crafting can create sustainable work in which existing personal resources are benefited from, developed further through learning, or translated into novel resources (Kira, van Eijnatten, & Balkin, 2010).

Kira and colleagues (2010) state that job crafting is an ongoing and participative process that starts from the resources and strengths of the worker and looks for further ways to allow these resources to develop. They posit that employees' sustainable work ability, which is highly related to employability, is grounded in the dynamic development of personal resources. Consequently, the maintenance of personal resources that promote the development of existing and new resources helps the worker to meet the demands of changing work situations (Kira, van

Eijnatten, & Balkin, 2010). Hence, job crafting can stimulate personal growth and adaptability, leading to enhanced perceived employability in terms of feeling more flexible and more able to grow with the current organization (i.e. internal employability), as well as feeling more attractive to the external labor market (i.e. external employability; Akkermans & Tims, 2017). This is supported by Brenninkmeijer and Hekkert-Koning (2015), who found a positive association between crafting resources and perceived employability. Given the ample evidence in extant literature on the link between job crafting and employability, we argue that proactive behaviours at work in terms of job crafting may be a key factor in explaining employability. As a result the following hypothesis arises:

Hypothesis 3. There is a positive association between job crafting and perceived a) internal and b) external employability.

In addition to the direct link between job crafting and employability, we expect that job crafting partly mediates the association between organizational climate and perceived employability. In an organizational climate that is age-inclusive, employees will feel stimulated to continue working, and acknowledge that it is crucial to be proactive and anticipatory in order to keep functioning well and stay employed (Posthuma & Campion, 2009). The perception of an age-inclusive climate emphasizes that employees have career opportunities which makes them aware of the urgency to adjusting work boundaries and learn new skills. Therefore, we believe that organizational climate also has an indirect effect on employability via job crafting.

Hypothesis 4. Job crafting partially mediates the positive association between organizational climate and perceived a) internal and b) external employability.

Moreover, we expect that job crafting partly mediates the relation between FTP and perceived employability. Building on the previous line of reasoning that people who view time

as expansive value the acquisition of knowledge and skills more (Nuttin, 2014), it is likely that an extensive FTP will evoke job crafting behaviours. Likewise, since employees with an open-ended FTP are inclined to have more growth motives, they can use job crafting to gather knowledge and develop themselves. In addition, FTP has shown to be an important antecedent of motivation and proactive behaviour (e.g., Carstensen, 2006; Joireman, Shaffer, Balliet, & Strathman, 2012), and Kooij, Tims, and Akkermans (2017) showed that when open-ended FTP increased over a 1-year time period, employees also crafted their jobs more. FTP is an important motivational antecedent of job crafting because the perception of time influences work motives, and employees will craft their job in order to make sure it fits with these motives (Kooij, Tims, & Akkermans, 2017). Building on this, we expect that the relationship between FTP and employability can partly be explained through job crafting.

Hypothesis 5. The positive association between future-time perspective and a) internal and b) external perceived employability is partially mediated by job crafting.

Finally, we expect that the effect of FTP on job crafting will be stronger for employees who experience an age-inclusive climate. Since individual concepts interact with their surroundings, it is important to take this interaction into account (Chen, Kanfer, DeShon, Mathieu, & Kozlowski, 2009). Individual behaviours are influenced by employees' internal characteristics, but predicting a consistent pattern of individual behaviour requires consideration of the person and the social context in tandem (Gibbons & Rupp, 2009). Building on Chen and Kanfer (2006) cross-level model of motivational processes that views motivation as a multilevel system-like phenomenon involving parallel and inter-related individual-, team-, and cross-level processes (Chen et al., 2009), we posit that perceived employability depends on the combined influences of individual dispositional inputs (i.e. FTP) and organizational-level inputs (i.e.

organizational climate). Therefore, when employees are future oriented and experience an age-inclusive climate, they will be more likely to engage in job crafting than when they experience an organizational climate that is less inclusive for older workers. Consequently, we expect a cross-level interaction between organizational climate and FTP. Which brings us to the following hypothesis:

Hypothesis 6. The positive association between FTP and job crafting is stronger for employees who experience an age-inclusive climate.

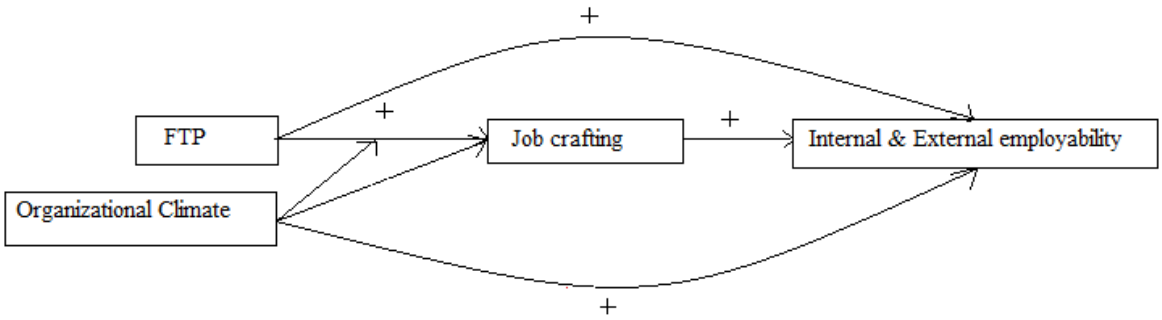

Figure 1. *Conceptual Model Predicting Perceived Employability*

Method

Participants and Procedure

Ethical approval was granted by the ethical review board of Tilburg University (EC-2017.65) and a pre-registration was submitted to Open Science Framework in June 2018 (https://osf.io/nkb9q/). The data were collected by means of a large-scale survey as part of an ongoing intervention study among Dutch healthcare companies. The data collection procedure involved the distribution of online self-report questionnaires among employees in September 2017. Potential participants were invited via email and the companies' intranet, where they could register voluntary to participate in either a self-leadership intervention or a leadership intervention. However, since this study only uses the baseline measure, the specific content of

the interventions is not relevant. All participants had to fill in a questionnaire which took approximately 20 minutes. Participation was on a voluntary basis, informed consent had to be provided, and anonymity was guaranteed.

Participants were part of a larger data collection project called ´Bewegen werkt´ that examines sustainable employment among health care employees in the Netherlands (HAN University; Karen Pak, Eghe Osagie, & Annet de Lange). In total, 24 healthcare organizations across the Netherlands participated in the study. In total, 3717 employees received the invitation to participate in the study, and 2697 employees filled out the questionnaire. Of the total sample, 84% was female, which is fairly similar to the population of health care workers in The Netherlands (85% female; Central Bureau for Statistics, 2015). The average job tenure of the participants was 13.7 years (*SD* = 10.5) and their average age was 45 years (*SD* = 11.59). 87.5% of the respondents had a permanent contract. Moreover, most of the participants completed intermediate vocational (38.6%) or secondary vocational (34.9%) education, and 9.4% of the respondents reported a managerial position. These characteristics converge for the greater part with the demographic characteristics from other large-scale Dutch studies, which suggests that the current sample is representative for the Dutch working population (e.g. CBS, 1998; Houtman, 1997).

Measures

Employability. Perceived employability was measured with the ´Career Competencies questionnaire´ (Akkermans, Brenninkmeijer, Huibers, & Blonk, 2012), which is an adapted version of the validated questionnaire of De Cuyper and De Witte (2008). This scale consists of eight items in total, with response categories rated on a 5-point Likert scale ranging from 1

(*completely untrue*) to 5 (*completely true*). The questionnaire distinguished both internal and external employability by the measurement of four items for each dimension. Confirmatory Factor Analysis (CFA) indeed showed that a two- factor model ($\chi^2(19)= 361.61$, CFI = .98, TLI = .98, SRMR = .04) fitted significantly better than a one-factor model ($\Delta\chi^2(1) = 2955.30$, $p < .001$) in the present study. An example question of external employability is "I could quickly find another, equivalent job" (α = .938). An example question of internal employability is "At my current work I am employable to do different types of work" (α = .725).

Future time perspective (FTP). FTP was measured with a scale developed by Zacher and Frese (2009) that captures FTP at work. The scale ranges from 1 (*completely untrue*) to 5 (*completely true*) and consists of six items. Zacher and Frese (2009) posit that the scale can be divided into ´remaining opportunities´ and ´remaining time´. CFA showed that the fit of the two-factor model was good ($\chi^2(8)= 59.047$, CFI = .995, TLI = .991, SRMR = .018) and significantly better than the fit of a one-factor ($\Delta\chi^2(1) = 595.83$, $p < .001$). An example question of the remaining opportunities scale is ´My work future is filled with possibilities´ (α = .910), and an example question of the remaining time scale is ´The biggest part of my working life is ahead of me´ (α = .675). Factor loadings of the two-factor model are displayed in Table S1 of the Supplementary Materials.

Organizational Climate. Organizational climate was measured with the Nordic Age Discrimination Scale (NADS; Furunes & Mykletun, 2010). This scale consists of six items and response categories were rated on a five-point Likert scale that ranged from 1 (*completely untrue*) to 5 (*completely true*). An example question from this scale is ´elderly workers do not have equal opportunities for training during work time´. Lower scores were indicative of a more inclusive organizational climate, and therefore lower levels of age discrimination. In order to use

this variable as a level-two predictor we calculated the ICC. Within multilevel modelling, the ICC(1) and ICC(2) are frequently calculated to assess the interrelation of hierarchical data (e.g., Castro, 2002). In general, ICC(1) is an estimate of effect size indicating the extent to which individual ratings are attributable to group membership, whereas ICC(2) estimates the reliability of mean ratings furnished by a group (Shieh, 2016). In the present study, the ICC(1) was .044 and the ICC(2) was .822 (Table S2 of the Supplementary Materials). LeBreton and Senter (2008) have suggested that an ICC(1) of .05 represents a small to medium effect (p. 838). However, Bliese and Halverson (1998) have simulated conditions where only 1% of the variance is attributed to group membership ICC(1) of .01 and, still, strong group-level relationships were detected that were not evident in the lower level data. Therefore this study will focus on the ICC (2). For assessing reliability of group-level means, ICC(2) from > 0.75 are excellent (Fleiss, 1986). The ICC(2) in this study was .822, meaning that 82 % of the total observed variance in climate perceptions occurred at the organization level.

Job Crafting. Job crafting was measured with the job crafting scale of Tims et al. (2012). This scale consists of 15 items, which are all rated on a five-point Likert scale, ranging from 1 (*Never*) to 5 (*Always*). The scale was aimed at measuring three dimensions of job crafting, namely: increasing structural job resources (JC structural resources), and increasing social job resources (JC social resources), and increasing challenging job demands (JC challenge demands). CFA showed good fit for the three-factor model ($\chi^2(87) = 2284.36$, CFI = .92, TLI = .91, SRMR = .05), which was significantly better than a one-factor ($\Delta\chi^2(3) = 1385$, $p < .001$) or any alternative of the two-factor model (structural and social VS. challenge, $\Delta\chi^2(1) = 916.38$, $p < .001$; social and challenge VS. structural, $\Delta\chi^2(1) = 875.49$, $p < .001$; structural and challenge VS. social $\Delta\chi^2(1) = 469.48$, $p < .001$). An example question for JC structural resources is ´I try to

develop myself professionally´, an example question for JC social resources is ´I ask colleagues for advice´, and an example question for JC challenging demands is ´I regularly take on extra tasks even though I do not receive extra salary for them´. Factor loadings of the three-factor model is displayed in Table S3 of the Supplementary Materials.

Control variables. We controlled for age, autonomy (α = .856), and workload (α = .871) in all our analyses. We decided to control for autonomy and workload since, according to the activation theory of Karasek Jr (1979), 'active jobs' (i.e. high workload and high autonomy) can trigger employees to proactively deal with their environment. Moreover, we included age given the strong correlations between chronological age and FTP found in previous research (e.g., Lang & Carstensen 2002).

Analyses

All analysis were conducted with IBM SPSS statistics (version 22). A hierarchical mixed model analysis was performed separately for perceived internal and external employability as dependent variable. In the null model only the control variables were included (i.e. age, autonomy, and workload) and appropriate constraints were added to the model syntax (i.e. random intercept, fixed slopes). Subsequently, the level-one predictor FTP (time and opportunities) was added (Hypothesis 1). As a second step we included the level-two predictor organizational climate (Hypothesis 2). Next, in the final model, the other level-one predictor job crafting (JC structural resources, JC social resources, and JC challenging demands) was added (Hypothesis 3). With the model fit indices, it was assessed whether the most complicated model showed the best fit. The Chi-square change ($\Delta\chi^2_{model1}$ - $\Delta\chi^2_{model2}$) was used to determine whether the nested model fitted significantly better than the previously defined model.

In order to evaluate the indirect effect organizational climate on perceived internal and

external employability via job crafting (Hypothesis 4), we conducted a mediation analysis in MLmed (Multi-level mediation; Rockwood & Hayes, 2017). To evaluate the indirect effect of FTP (time and opportunities) on perceived internal and external employability via job crafting (Hypothesis 5), we conducted a mediation analysis in the SPSS application PROCESS (*Model 4;* Hayes, 2013). Lastly, in order to examine the cross level interaction between organizational climate and FTP (time and opportunities: Hypothesis 6), we conducted a separate multilevel regression (mixed models) with job crafting (JC structural resources, JC social resources, and JC challenging demands) as a dependent variable.

Results

Descriptive statistics of age, workload, autonomy, perceived employability (internal, external), FTP (opportunities, time), organizational climate, and job crafting (JC social resources, JC structural resources, and JC challenge demands) were calculated in terms of means and standard deviations, and correlations between the study variables were displayed in Table 1. A summary of all findings regarding perceived internal employability can be found in Table 2 (direct effects) and Table 3 (indirect effects), and the findings regarding perceived external employability can be found in Table 4 (direct effects) and Table 5 (indirect effects). In sum, for perceived internal employability, we found a significant effect of FTP opportunities (B= .249, p < .01), organizational climate (B= -.322, p < .01), JC social resources (B= .077, p = < .01) and JC structural resources (B= .108, p <.01). Mediation analysis revealed that only the indirect effect of FTP opportunities via JC social resources (B = .017, SE = .006, 95% CI: [.006, .030]) and JC structural resources (B = .031, SE = .009, 95% CI: [.015, .050]) on perceived internal employability was significant. Additionally, we found a significant effect of FTP opportunities (B= .292, p <.01), FTP time (B= .100, p <.01), JC structural resources (B= .211, p <.01), and JC social resources (B= -.075, p =.025) on perceived external employability. Mediation analysis

revealed that only the indirect effect of FTP opportunities via JC structural resources (*B* = 031, *SE* = .009, 95% CI: [.015, .051]) and JC social resources (*B* = -017, *SE* = .008, 95% CI: [-.033, -.002])) on external employability was significant. Lastly, the cross-level interaction between FTP and climate on job crafting showed not to be significant (Table 6).

Predicting Perceived Internal Employability

Direct effects

First we will describe the findings of the analysis in which perceived internal employability is included as the dependent variable (Table 2). The null model was used to assess whether the inclusion of the first level-one predictors (FTP opportunities, FTP time) significantly increased the fit of the model. When including FTP opportunities and FTP time, the fit of the model improved significantly in comparison to the baseline model ($\Delta\chi^2(159) = 564.968$, $p < .01$). However, only FTP opportunities showed to be a significant predictor (*B* = .249, *p* < .01), whereas FTP time was not (*B* = .018, *p* = .410). Consequently, hypothesis 1a) was partly supported. Next, we added the level-two predictor organizational climate to the model (B= -.322, *p* < .01), which significantly increased model fit ($\Delta\chi^2(1) = 6.538$, $p = .011$), supporting hypothesis 2a). To examine the association between job crafting and perceived internal employability, we then added JC social resources, JC structural resources, and JC challenge demands, which significantly improved the model fit ($\Delta\chi^2(3) = 36.151$, $p < .01$) compared to the model including only FTP and climate. However, only JC social resources (B= .077, *p* = < .01) and JC structural resources (B= .108, *p* <.01) were significantly associated with internal employability, whereas JC challenge demands was not (*B* = .007, *p* = .775). Hence, hypothesis 3a) was partly supported.

Mediation

Furthermore, we tested the indirect effect of organizational climate on perceived internal employability via job crafting (Table 3). One condition for testing an indirect effect is that the independent variable (organizational climate) has to be associated with the mediator (job crafting), and the mediator has to be associated with the dependent variable (external employability; MacKinnon, Fairchild, & Fritz, 2007). Although the direct effect of organizational climate on JC social resources (B = -.230, p = .028) was significant, the effect of on JC structural resources (B = -.010, p = .918) and JC social resources (B = -.230, p = .028) was not. Moreover, the indirect effect of organizational climate on perceived internal employability via job crafting was not significant, therefore hypothesis 4a) was not supported.

Additionally we tested the indirect effect of FTP on internal employability via job crafting (Table 3). When examining the direct effect of FTP on job crafting we found that FTP opportunities was significantly related to JC structural resources (B = .288, p < .01), JC social resources (B = .223, p < .01), and JC challenge resources (B = .286, p < .01). FTP time did not have an effect on job crafting. Mediation analysis (Table 6) revealed that only the indirect effect of FTP opportunities via JC social resources (B = .017, SE = .006, 95% CI: [.006, .030]) and JC structural resources (B = .031, SE = .009, 95% CI: [.015, .050]) on perceived internal employability was significant. Hence, hypothesis 5a) was partly supported.

Predicting Perceived External Employability

Direct effects

In this section we will describe the findings of the analysis in which perceived external employability was included as the dependent variable (Table 4). When adding FTP opportunities and FTP time to the baseline model, the chi-square test showed that the model with added

predictors showed a significantly better fit ($\Delta\chi^2(160) = 651.747$, $p < .01$). Both FTP time ($B = .292$, $p < .01$) and FTP opportunities ($B = .099$, $p < .01$) had an effect on perceived external employability. Therefore hypothesis 1b) was fully supported. In the second model we added the level-two predictor organizational climate, which decreased the fit of the model ($\Delta\chi^2(1) = 1.877$, $p = .171$). Climate was not found to be a significant predictor of external employability ($B = -.058$, $p = .685$). Therefore hypothesis 2b) was not supported. Subsequently we added job crafting (i.e. JC social resources, JC structural resources, JC challenge demands), which significantly improved the fit of the model ($\Delta\chi^2(4) = 35.04$, $p < .01$). However, only JC structural resources ($B = .211$, $p < .01$) and JC social resources ($B = -.075$, $p = .025$) were significant predictors of external employability, whereas JC challenge demands ($B = .056$, $p = .074$) were not. Interestingly, the effect of JC social resources was negative, suggesting that crafting social resources is related to lower perceived external employability. Therefore hypothesis 3b) was only partly supported.

Mediation

Furthermore, we tested the indirect effect of organizational climate on perceived external employability via job crafting (Table 5). Results of the mediation analysis did not reveal any significant findings, so hypothesis 4b) was not supported. Additionally we evaluated the indirect effect of FTP on external employability via job crafting (Table 5). Only the indirect effects of FTP opportunities via JC structural resources ($B = .031$, $SE = .009$, 95% CI: [.015, .051]) and JC social resources ($B = -.017$, $SE = .008$, 95% CI: [-.033, -.002]) on external employability was significant. Interestingly, the mediation through JC social resources showed to be negative, suggesting that FTP opportunities leads to crafting more social resources, however, crafting

social resources is related to lower perceived external employability. Therefore hypothesis 5b) was partly supported.

Cross-level Interaction between FTP and Organizational Climate

Lastly, we examined the effect of the cross-level interaction between FTP and organizational climate on job crafting (Table 6). Multilevel analyses revealed that the interaction between FTP opportunities and organizational climate on JC structural resources (B = .074, p = .408), JC social resources (B = -.053, p = .621), and JC challenge resources (B = -.214, p = .061) was not significant. Moreover, the interaction between FTP time and climate on JC structural resources *(*B = -.062, p = .513), JC social resources (B = -.037, p = .744), and JC challenge resources (B = .169, p = .162) also did not show any significant findings. Consequently, hypothesis 6 was not supported.

Discussion

The purpose of the present study was to gain insight into the multilevel factors that contribute to employability. As such, we examined the relations of FTP, organizational climate, and job crafting to perceived internal and external employability in a large representative sample of Dutch healthcare workers. Overall, our findings support the notion that FTP remaining opportunities is related to both perceived internal and external employability, and FTP remaining time is related to perceived external employability. Moreover, organizational climate was shown to be associated with perceived internal employability, which emphasizes that employability does not only depend on employees' personal skills and characteristics but also external circumstances. The findings regarding job crafting and employability were somewhat mixed, since JC increasing social resources and JC increasing structural resources were found to be related to both perceived internal and external employability, while JC increasing challenging

demands was not. Surprisingly, the association between JC increasing social resources and perceived external employability was negative. Furthermore, mediation analyses revealed that only the indirect effect of FTP opportunities via JC increasing structural resources and JC increasing social resources on internal and external employability was significant. Again, the effect of the mediator JC increasing social resources was negative.

Although we expected that FTP remaining time and FTP remaining opportunities would increase perceived employability, results revealed that FTP time was not related to perceived internal employability. A possible explanation for this might be that companies do not always provide their employees with the opportunity to invest in internal employability strategies, and investments made in these policies have implications for how internally employable workers believe to be (Sánchez-Manjavacas, Saorín-Iborra, & Willoughby, 2014). In this case, the perspective on the remaining time employees have left in their careers appears to be nugatory. Nevertheless, FTP remaining opportunities was related to perceived internal employability. This could be explained by the fact that when employees think about the opportunities they have in the future, they might already take into account their career options and employability potential. This would also explain why only the indirect effect of FTP opportunities on perceived internal and external employability through JC increasing social and JC increasing structural resources was significant.

Furthermore, results did not reveal an association between organizational climate and perceived external employability. Age-diversity policies within the company may signal to their employees that as age increases, employees' chances to be included in career development do not decrease. However, since employees simply do not have a clear vision of how other organizations deal with age-diversity, it seems logical that climate is not related to the perceived

external employability. Moreover, other organizational characteristics (e.g. company size, demographic composition, and/or physical work environment) and external circumstances (e.g. economic prosperity) might also play a role in determining perceived external employability, and organizational influences might therefore be more difficult to interpret (Tisch, 2015). This might particularly be the case because companies are less likely to invest in external employability, since investing in human capital that cannot be used appears to be less valuable (Tisch, 2015). Although only a limited number of studies concentrate on the influence of organization characteristics on external employability, Tisch (2015) remarked that there is only little evidence indicating an association between organizational attributes and the likelihood of job change in another firm. The findings of the current study support this and suggest that individual factors might be more related to perceived external employability than organizational factors (i.e. age-inclusive climate).

Additionally, results show that only two dimensions of job crafting were related to perceived internal and external employability: JC increasing structural resources and JC increasing social resources. Interestingly, the association between JC increasing social resources and external employability was shown to be negative. This could be explained by the fact that as social resources increase, employees get more imbedded into their own (social) niche and increasingly rely on the current organization, making them less confident about their external employment (Sterelny, 2007). More specifically, although building social networks can be vital in employment mobility (Fugate et al., 2004), JC increasing social resources as measured by the questionnaire of Tims et al. (2012), might have been more aimed at looking for support in terms of feedback and advice. Consequently, employees who rely on supervisors and colleagues might feel less confident about ‘surviving’ in the external labour market outside of the organization.

However, more research is needed to examine this. Furthermore, job crafting in terms of increasing challenge demands did not show to be related to perceived internal and external employability. JC increasing challenge demands was thought to be relevant to employability since it enables employees to learn from challenging tasks and consequently develop themselves. In this way, by increasing challenge demands, employees will subsequently build structural resources. Ergo, unintendedly, the absence of an association between JC increasing challenge demands and perceived employability might be explained by the fact that the association goes via JC structural resources. Hence, the working component within JC increasing challenge demands might already be captured by JC increasing social and structural resources. In that case, it seems logical that JC increasing challenge demands is not related to perceived employability. Nevertheless, more research is needed to confirm this.

Lastly, there was no cross-level interaction between FTP and organizational climate, indicating that the effect of FTP on job crafting did not depend on climate, nor did the effect of climate on job crafting depends on FTP. Possibly, employees who are future oriented (i.e. with an extended FTP) already see numerous opportunities in their career and therefore do not additionally benefit from an age-inclusive climate. In this case, one could speak of a ceiling effect of the individual factor, in which the contextual factor does not contribute. Alternatively, the mechanism can also work the other way around; there could be a ceiling effect of the contextual factor, in which the additional value of the individual factor is negligible (i.e. employees who experience an age-inclusive climate do not supplementary benefit of an extended FTP). Unfortunately, there is still little known about interactions between employees and their surroundings with respect to employability, and more research is needed in this area to examine potential other multilevel constructs that may contribute to perceived employability.

Theoretical Contributions

The present study adds to the current state of the literature in several ways. Firstly, this study contributes to the limited knowledge about multilevel factors associated with perceived employability. While some researchers have integrated variables related to organization or the labour market as a whole in their analysis (Berntson, 2008; Van den Broeck, De Cuyper, Baillien, Vanbelle, Vanhercke, & De Witte, 2014), it is rare to find research proposing a multilevel approach to assess individual and organizational characteristics in relation to employability (Chun, 2016). The present study supports the claim that both individual and organizational level concepts relate to workers perceived employability. We provided initial evidence for the association between FTP opportunities and perceived internal and external employability, and FTP time and perceived internal employability. This is interesting since Zacher and Frese (2009) state that FTP time is more strongly influenced by chronical age and therefore the perception of remaining opportunities is more strongly influenced by personal and organizational characteristics than remaining time. Accordingly, instead of focusing on a variable that can hardly be influenced (FTP time) or not at all (chronical age), our research hints at the potential to target perceived opportunities at work in order to enhance employability. Moreover, several studies have found that FTP opportunities mediated the negative relationship between age and employability (Froehlich et al., 2016), suggesting that FTP remaining opportunities might be more important in explaining employability than chronical age.

Additionally, the present study also adds to the current state of the field by examining the mediating role of job crafting. By looking into the behavioural mechanisms underlying employability associations, we gained further understanding in how proactive behaviours like job crafting might promote perceived employability. By examining the individual factors related to

the motivation and orientation to craft a job, we found that FTP opportunity relates to job crafting. Subsequently, JC increasing structural resources can enable employees to proactively build upon their potential and make them more employable.

Limitations and Future Research

Despite its contributions to the literature, several limitations need to be taken into account. Firstly, a major limitation of this study is the cross-sectional design, since it does not allow to test causal mechanisms (Levin, 2006). Although theory guided our hypotheses about causal relationships, hypothesized causal relationships should be interpreted carefully. Since we cannot test directionality with correlational research, future longitudinal research is needed to replicate the current findings. Secondly, although the sample of employees was recruited from multiple organizations, the generalization of the current findings to other sectors might need further empirical examination. Although this large-scale sample is considered representative for the healthcare sector of the Dutch workforce, it might be that sector-specific factors (e.g. degree of competitiveness) make that these findings cannot be directly translated to other sectors. These sector-specific factors can be translated into occupational cultures that might influence employability. For instance, many privileged internet and high technology workers reject permanent jobs and choose to work in the world of contracting precisely because it affords them career mobility, making remaining employable part of their job (Smith, 2010). Future research should therefore aim to investigate multilevel employability associations with a longitudinal design in multiple sectors. Thirdly, another limitation of this study is that it relies on a self-selected sample. That is, only the employees who wanted to participate in an intervention were included in the study. Possibly, these employees were already more motivated and invested in

their careers and therefore they might show different baselines than the other employees who were not included.

Lastly, the present study relied on self-report measures of both independent and dependent variables. Since FTP and job crafting are more subjective constructs that are susceptible to individual interpretation and objective measures are hard to obtain, self-assessment of these constructs seems to be the way to go. Nevertheless, there are problems associated with this practice. Specifically, use of self-report may result in a possible inflation of strength of relationships (Forrier, Verbruggen, & De Cuyper, 2015) as a result of shared method variance. Moreover, it possible that self-assessment of employability differs from the actual employability of the workers, which might lead to a different interpretation of the construct. For instance, since perceived employability concerns the individual's beliefs about his or her possibilities of finding employment, it is thought to be closely related to self-concepts such as self-efficacy (Caricati, Chiesa, Guglielmi, & Mariani, 2016). It is possible that employees who score high on self-efficacy are overly confident about their capabilities, and view themselves as highly employable while this is not realistic. Therefore, future research might also try to use more objective measures (e.g. unemployment periods, number of job transfers) in order to disentangle associations of perceived and actual employability and their links with FTP, job crafting, and organizational climate.

Practical Implications

The present study provides organizations and society as a whole with additional insight into the factors associated with perceived internal and external employability. This is important, as employability is a strong predictor of health and mental well-being (Berntson, 2008; Berntson & Marklund, 2007). This has implications for other crucial organizational outcomes such as

turnover, satisfaction, engagement, performance (Vartia, 2001), and more general societal costs (e.g. unemployment benefits; Fox, 1999). Since in many countries older individuals have comparatively low levels of internal and external employability, and given the strong correlations between chronological age and FTP found in previous research (e.g., Lang & Carstensen 2002), our finding have important implications for the development of employability in the context of an aging workforce. For instance, organizations can contribute to perceived internal employability by investing in an age-inclusive climate. The key is to identify the specific adaptations needed in the organizational climate to make employees of all ages feel included. This could for instance be done by offering career development trajectories to employees of all ages. When doing this, organizations can benefit from employable workers by reallocating talents and resources, and employees can benefit by being adaptive and skilled so that they can stay active in the dynamic labour market (Bakker et al., 2012; Berntson & Marklund, 2007).

Another practical implication of this study is that, apart from organizational level factors, individual malleable constructs like FTP (in particular with opportunities focus) and job crafting (increasing structural resources) have been found to relate to perceived employability, making it worthwhile to invest in these concepts. Since Zacher and Frese (2009) found that remaining opportunities are less strongly associated with age, and work characteristics such as complexity and control were positively related to remaining opportunities, organizations can act upon the perceived opportunities of their workers. By stimulating FTP opportunities (e.g. providing employees with control and complexity), organizations can also enable employees to craft structural resources which will subsequently also influence their perceived employability. All in all, this study sheds light on relatively malleable individual- and organization-level constructs

that the organization can invest in (i.e. age-inclusive climate, FTP opportunities, JC structural resources) to enhance the perceived employability of its workers.

Literature

Akkermans, J., Schaufeli, W., Brenninkmeijer, V., & Blonk, R. (2013). The role of career competencies in the Job Demands—Resources model. *Journal of vocational behavior, 83*(3), 356-366.

Bakker, A. B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human relations, 65*(10), 1359-1378.

Becker, G. S. (1993). Nobel lecture: The economic way of looking at behavior. *Journal of political economy, 101*(3), 385-409.

Bembenutty, H., & Karabenick, S. A. (2004). Inherent association between academic delay of gratification, future time perspective, and self-regulated learning. *Educational Psychology Review, 16*(1), 35-57.

Berntson, E. (2008). *Employability perceptions: Nature, determinants, and implications for health and well-being.* Stockholm, Psykologiska institutionen.

Berntson, E., & Marklund, S. (2007). The relationship between perceived employability and subsequent health. *Work & Stress, 21*(3), 279-292.

Berntson, E., Sverke, M., & Marklund, S. (2006). Predicting perceived employability: human capital or labour market opportunities? *Economic and Industrial Democracy, 27*(2), 223-244.

Blaug, M. (1976). The empirical status of human capital theory: A slightly jaundiced survey. *Journal of economic literature, 14*(3), 827-855.

Bliese, P. D., & Halverson, R. R. (1998). Group size and measures of group-level properties: An examination of eta-squared and ICC values. *Journal of management, 24*(2), 157-172.

Boehm, S. A., Kunze, F., & Bruch, H. (2014). Spotlight on age-diversity climate: The impact of age-inclusive HR practices on firm-level outcomes. *Personnel Psychology, 67*(3), 667-704.

Brenninkmeijer, V., & Hekkert-Koning, M. (2015). To craft or not to craft: The relationships between regulatory focus, job crafting and work outcomes. *Career Development International, 20*(2), 147-162.

Caricati, L., Chiesa, R., Guglielmi, D., & Mariani, M. G. (2016). Real and perceived employability: a comparison among Italian graduates. *Journal of Higher Education Policy and Management, 38*(4), 490-502.

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: support for socioemotional selectivity theory. *Psychology and aging, 7*(3), 331.

Carstensen, L. L. (2006). The influence of a sense of time on human development. *Science, 312*(5782), 1913-1915.

Casper, W. J., & Harris, C. M. (2008). Work-life benefits and organizational attachment: Self-interest utility and signaling theory models. *Journal of vocational behavior, 72*(1), 95-109.

Castro, S. L. (2002). Data analytic methods for the analysis of multilevel questions: A comparison of intraclass correlation coefficients, rwg (j), hierarchical linear modeling, within-and between-analysis, and random group resampling. *The Leadership Quarterly, 13*(1), 69-93.

Chen, G., & Kanfer, R. (2006). Toward a systems theory of motivated behavior in work teams. *Research in organizational behavior, 27*, 223-267.

Chen, G., Kanfer, R., DeShon, R. P., Mathieu, J. E., & Kozlowski, S. W. (2009). The motivating potential of teams: Test and extension of Chen and Kanfer's (2006) cross-level model of motivation in teams. *Organizational Behavior and Human Decision Processes, 110*(1), 45-55.

Chun, J. (2016). *A Multilevel Analysis of the Effects of Individual and Organizational Level Variables on Perceived Employability of Office Workers in Large Corporations.*

De Cuyper, N., & De Witte, H. (2008). Gepercipieerde kans op een baan versus een betere baan: Relaties met arbeidstevredenheid en welzijn. *Gedrag en Organisatie*, *21*(4), 475-492.

De Volder, M. L., & Lens, W. (1982). Academic achievement and future time perspective as a cognitive–motivational concept. *Journal of Personality and Social Psychology, 42*(3), 566.

Dwivedi, A., & Rastogi, R. (2017). Proactive Coping, Time Perspective and Life Satisfaction: A Study on Emerging Adulthood. *Journal of Health Management, 19*(2), 264-274.

Estiénne, M. (1997). An organizational culture compatible with employability. *Industrial and Commercial Training, 29*(6), 194-199.

Fallick, B., Fleischman, C. A., & Rebitzer, J. B. (2006). Job-hopping in Silicon Valley: some evidence concerning the microfoundations of a high-technology cluster. *The Review of Economics and Statistics, 88*(3), 472-481.

Fleiss, J. L. (1986). Reliability of measurement. *The design and analysis of clinical experiments*, 1-32.

Forrier, A., Verbruggen, M., & De Cuyper, N. (2015). Integrating different notions of employability in a dynamic chain: The relationship between job transitions, movement capital and perceived employability. *Journal of vocational behavior, 89*, 56-64.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public health nutrition, 2*(3a), 411-418.

Frese, M., & Fay, D. (2001). 4. Personal initiative: An active performance concept for work in the 21st century. *Research in organizational behavior, 23*, 133-187.

Froehlich, D. E., Beausaert, S. A., & Segers, M. S. (2015). Great expectations: The relationship between future time perspective, learning from others, and employability. *Vocations and Learning, 8*(2), 213-227.

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of vocational behavior, 65*(1), 14-38.

Furunes, T., & Mykletun, R. J. (2010). Age discrimination in the workplace: Validation of the Nordic Age Discrimination Scale (NADS). *Scandinavian Journal of Psychology, 51*(1), 23-30.

Gibbons, A. M., & Rupp, D. E. (2009). Dimension consistency as an individual difference: A new (old) perspective on the assessment center construct validity debate. *Journal of management, 35*(5), 1154-1180.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems, 18*(1), 185-214.

Henry, H., Zacher, H., & Desmette, D. (2017). Future time perspective in the work context: a systematic review of quantitative studies. *Frontiers in psychology, 8*, 413.

Hillage, J., & Pollard, E. (1998). *Employability: developing a framework for policy analysis*: DfEE London.

Joireman, J., Shaffer, M. J., Balliet, D., & Strathman, A. (2012). Promotion orientation explains why future-oriented people exercise and eat healthy: Evidence from the two-factor

consideration of future consequences-14 scale. *Personality and Social Psychology Bulletin, 38*(10), 1272-1287.

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

Kelan, E. (2008). Gender, risk and employment insecurity: The masculine breadwinner subtext. *Human relations, 61*(9), 1171-1202.

Kihongo, V. (2011). Factors Inhibiting Effective Staff Training: Cases of Temeke Municipal and Kisarawe District Councils, Tanzania. *Asian Journal of Business Management, 3*(2), 123-130.

Klein, K. J., Tosi, H., & Cannella Jr, A. A. (1999). Multilevel theory building: Benefits, barriers, and new developments. *Academy of Management review, 24*(2), 248-253.

Kooij, D., Kanfer, R., Betts, M., & Rudolph, C. (2018). Future time perspective: A systematic review and meta-analysis. *The Journal of applied psychology*.

Kooij, D., & Van De Voorde, K. (2011). How changes in subjective general health predict future time perspective, and development and generativity motives over the lifespan. *Journal of Occupational and Organizational Psychology, 84*(2), 228-247.

Kooij, D. T., Tims, M., & Akkermans, J. (2017). The influence of future time perspective on work engagement and job performance: the role of job crafting. *European Journal of Work and Organizational Psychology, 26*(1), 4-15.

Lang, F. R., & Carstensen, L. L. (2002). Time counts: Future time perspective, goals, and social relationships. *Psychology and aging, 17*(1), 125.

Lauver, K. J., & Kristof-Brown, A. (2001). Distinguishing between employees' perceptions of person–job and person–organization fit. *Journal of vocational behavior, 59*(3), 454-470.

LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational research methods, 11*(4), 815-852.

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based dentistry, 7*(1), 24.

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annu. Rev. Psychol., 58*, 593-614.

Miller, R. B., & Brickman, S. J. (2004). A model of future-oriented motivation and self-regulation. *Educational Psychology Review, 16*(1), 9-33.

Mowday, R. T., & Sutton, R. I. (1993). Organizational behavior: Linking individuals and groups to organizational contexts. *Annual review of psychology, 44*(1), 195-229.

Nauta, A., Vianen, A., Heijden, B., Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: the impact of employability culture, career satisfaction, and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology, 82*(2), 233-251.

Nuttin, J. (2014). *Future time perspective and motivation: Theory and research method*: Psychology Press.

Olaniyan, D., & Okemakinde, T. (2008). Human capital theory: Implications for educational development. *Pakistan Journal of Social Sciences, 5*(5), 479-483.

Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior, 31*(2-3), 463-479.

Posthuma, R. A., & Campion, M. A. (2009). Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of management, 35*(1), 158-188.

Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. *Organizational climate and culture, 1*, 5-39.

Sánchez-Manjavacas, Á., Saorín-Iborra, M. C., & Willoughby, M. (2014). Internal employability as a strategy for key employee retention. *Innovar, 24*(53), 7-22.

Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual review of psychology, 64*, 361-388.

Simons, J., Vansteenkiste, M., Lens, W., & Lacante, M. (2004). Placing motivation and future time perspective theory in a temporal perspective. *Educational Psychology Review, 16*(2), 121-139.

Sonnentag, S. (2012). Psychological detachment from work during leisure time: The benefits of mentally disengaging from work. *Current Directions in Psychological Science, 21*(2), 114-118.

Spence, M. (1978). Job market signaling. In *Uncertainty in Economics* (pp. 281-306): Elsevier.

Sterelny, K. (2007). Social intelligence, human intelligence and niche construction. *Philosophical Transactions of the Royal Society of London B: Biological Sciences, 362*(1480), 719-730.

Strauss, K., Griffin, M. A., & Parker, S. K. (2012). Future work selves: How salient hoped-for identities motivate proactive career behaviors. *Journal of Applied Psychology, 97*(3), 580.

Suazo, M. M., Martínez, P. G., & Sandoval, R. (2009). Creating psychological and legal contracts through human resource practices: A signaling theory perspective. *Human Resource Management Review, 19*(2), 154-166.

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of vocational behavior, 80*(1), 173-186.

Tisch, A. (2015). Firms' contribution to the internal and external employability of older employees: evidence from Germany. *European journal of ageing, 12*(1), 29-38.

Van Den Berg, P. T., & Van Der Velde, M. E. (2005). Relationships of functional flexibility with individual and work factors. *Journal of Business and Psychology, 20*(1), 111-129.

Van der Heijden, B. (2002). Prerequisites to guarantee life-long employability. *Personnel review, 31*(1), 44-61.

Van Der Heijden, B., Boon, J., Van der Klink, M., & Meijs, E. (2009). Employability enhancement through formal and informal learning: an empirical study among Dutch non-academic university staff members. *International journal of training and development, 13*(1), 19-37.

Vartia, M. A. (2001). Consequences of workplace bullying with respect to the well-being of its targets and the observers of bullying. *Scandinavian journal of work, environment & health*, 63-69.

Vuori, J., Toppinen-Tanner, S., & Mutanen, P. (2012). Effects of resource-building group intervention on career management and mental health in work organizations: randomized controlled field trial. *Journal of Applied Psychology, 97*(2), 273.

Wittekind, A., Raeder, S., & Grote, G. (2010). A longitudinal study of determinants of perceived employability. *Journal of Organizational Behavior, 31*(4), 566-586.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management review*, *26*(2), 179-201.

Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: Relationships between age, work characteristics, and occupational future time perspective. *Psychology and aging, 24*(2), 487.

Table 1

Means, Standard Deviations, and Pearson Correlations between the Study Variables (N=2697)

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Age (years)	45.31	11.6										
2. Autonomy	2.22	.60	-.028									
3. Workload	2.72	.59	.062**	-.103**								
4. Internal employability	3.20	.71	-.275**	-.038**	.117**							
5. External employability	3.20	.99	-.368**	.051**	.021	.322**						
6. Organizational climate	2.33	.12	-.016**	.009	-.047*	-.057**	.004					
7. FTP remaining time	2.94	.94	-.727**	-.034	.054**	.291**	.373**	.005				
8. FTP remaining opportunities	3.23	1.00	-.470**	-.097**	.044*	.407**	.414**	-.018	.561**			
9. JC increasing structural resources	3.44	.64	-.226**	-.194**	-.025	.287**	.278**	.001	.244**	.460**		
10. JC increasing social resources	2.42	.69	-.302**	-.106**	-.046*	.272**	.202**	-.036	.297**	.400**	.550**	
11. JC increasing challenging demands	2.56	.80	-.235**	-.140**	-.074**	.233**	.242**	.025	.258**	.400**	.657**	.555**

Table 2

Hierarchal Mixed Models Analysis Predicting Internal Employability

	Dependent variable: Internal Employability			
	B	*SE*	*T*	*p*
Model 0				
Age	-.016	.001	-14.164	.000
Autonomy	.117	.023	5.062	.000
Workload	-.042	.023	-1.862	.063
Model 1				
Age	-.005	.002	-3.153	.002
Autonomy	-.003	.023	5.233	.000
Workload	.119	.022	-.147	.883
FTP remaining opportunities	.249	.016	15.373	.000
FTP remaining time	.018	.022	.823	.410
Model 2				
Age	-.005	.001	-3.212	.001
Autonomy	-.004	.022	-.190	.849
Workload	.115	.023	5.044	.000
FTP remaining time	.019	.022	.844	.399
FTP remaining opportunities	.248	.016	15.308	.000
Organizational Climate	-.322	.106	-3.033	.002
Model 3				
Age	-.004	.002	-2.560	.011
Autonomy	.023	.022	1.020	.308
Workload	.128	.023	5.631	.000
FTP remaining time	.023	.021	1.037	.300
FTP remaining opportunities	.197	.017	11.286	.000
Organizational Climate	-.321	.105	-3.050	.002
JC increasing structural resources	.108	.030	3.676	.000
JC increasing social resources	.077	.025	3.130	.002
JC increasing challenge demands	.007	.023	.286	.775

Table 3

Mediation Analysis Predicting Internal Employability via Job Crafting

	B	*SE*	*LLCI*	*LLCI*
Independent Variable: FTP opportunities				
Direct effect				
Internal Employability *(DV)*	.200	.018	.166	.235
Indirect effect via				
Increasing structural resources	.031	.009	.015	.050
Increasing social resources	.017	.006	.006	.030
JC increasing challenge demands	.001	.007	-.014	.014
Independent Variable: FTP time				
Direct effect				
Internal Employability *(DV)*	.023	.022	-.020	.066
Indirect effect via			.	
Increasing structural resources	-.004	.003	-.011	.001
Increasing social resources	-.001	.002	-.005	.004
JC increasing challenge demands	.000	.001	-.001	.002
Independent Variable: Organizational Climate				
Direct effect				
Internal Employability *(DV)*	.286	.107	.077	.495
Indirect effect via			.	
Increasing structural resources	.042	.124	-.203	.313
Increasing social resources	-.021	.081	-.208	.139
JC increasing challenge demands	-.014	.171	-.362	.327

*Note: control variables age, workload, and autonomy were added in the analysis

Table 4

Hierarchical Mixed Model Analysis Predicting External Employability

	Dependent variable: External Employability			
	B	*SE*	*T*	*p*
Model 0				
Age	-.031	.002	-19.799	.000
Autonomy	.068	.031	-1.862	.026
Workload	.005	.031	.166	.868
Model 1				
Age	-.013	.002	-5.961	.000
Autonomy	.137	.030	4.579	.000
Workload	-.010	.031	-.309	.757
FTP remaining opportunities	.292	.022	13.308	.000
FTP remaining time	.100	.030	3.319	.001
Model 2				
Age	-.014	.002	-5.966	.000
Autonomy	.137	.030	4.572	.000
Workload	-.010	.031	-.334	.775
FTP remaining opportunities	.291	.022	13.289	.000
FTP remaining time	.099	.030	3.321	.001
Organizational climate	-.058	.143	-.405	.685
Model 3				
Age	-.013	.002	-5.863	.000
Autonomy	.173	.030	5.743	.000
Workload	.001	.031	.036	.971
FTP remaining opportunities	.231	.023	9.750	.000
FTP remaining time	.107	.030	3.596	.000
Organizational Climate	-.100	.143	-.703	.482
JC increasing structural resources	.211	.040	5.293	.000
JC increasing social resources	-.075	.033	-2.240	.025
JC increasing challenge demands	.056	.031	1.790	.074

Table 5

Mediation Analysis predicting External Employability via Job Crafting

	B	*SE*	*LLCI*	*HLCI*
Independent variable: FTP opportunities				
Direct effect				
External Employability *(DV)*	.233	.024	.186	.280
Indirect effect via				
JC Increasing structural resources	.061	.012	.038	.080
JC Increasing social resources	-.017	.008	-.033	-.002
JC increasing challenge demands	.015	.010	-.003	.034
Independent variable: FTP time				
Direct effect				
External Employability *(DV)*	.107	.030	.049	.166
Indirect effect via				
JC Increasing structural resources	-.008	.005	-.019	.001
JC Increasing social resources	.001	.002	-.004	.004
JC increasing challenge demands	.001	.002	-.002	.005
Independent variable: Organizational Climate				
Direct effect				
External Employability *(DV)*	.012	.145	-.272	.297
Indirect effect via			.	
JC Increasing structural resources	.054	.165	-.273	.431
JC Increasing social resources	.067	.128	-.154	.375
JC increasing challenge demands	-.017	.212	-.4618	.411

*Note: control variables age, workload, and autonomy were added in the analysis

Table 6

Cross-level Interaction between FTP and Organizational Climate

	B	*SE*	*t*	*p*
Dependent variable: JC structural resources				
Age	-.001	.001	.262	.793
Autonomy	-.086	.015	-5.543	.000
Workload	.013	.013	.846	.397
JC social resources	.219	.219	13.154	.000
JC challenge demands	.359	.014	25.154	.000
FTP time	.108	.223	.483	.629
FTP opportunities	-.037	.211	-.176	.860
Organizational Climate	-.015	.270	-.054	.957
FTP time* Climate	-.062	.094	-.654	.513
FTP opportunities * Climate	.074	.090	.827	.408
Dependent variable: JC social resources				
Age	-.006	.001	-5.040	.000
Autonomy	-.100	.019	-.552	.581
Workload	-.036	.019	-1.897	.058
JC structural resources	.310	.024	13.154	.000
JC challenge demands	.260	.184	14.113	.000
FTP time	.094	.265	.335	.723
FTP opportunities	.182	.251	.727	.468
Organizational Climate	.042	.321	.130	.896
FTP time* Climate	-.037	.112	-.326	.744
FTP opportunities * Climate	-.053	.107	-.495	.621
Dependent variable: JC challenge demands				
Age	.002	.001	.016	.987
Autonomy	.032	.020	-1.636	.102
Workload	-.071	.020	-3.532	.000
JC structural resources	.584	.023	25.072	.000
JC social resources	.299	.021	14.113	.000
FTP time	-.370	.284	-1.303	.193
FTP opportunities	.555	.269	2.065	.039
Organizational Climate	.412	.345	1.197	.232
FTP time* Climate	.169	.120	1.400	.162
FTP opportunities * Climate	-.214	.114	-1.876	.061