

Being stuck in the workplace

Who is locked-in and what are the implications for well-being and health?

Johanna Stengård

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Abstract

In today's working life, it has been argued that employees themselves to a large extent are expected to take charge of their own careers. However, some individuals may feel a lack of control over their careers as they feel stuck working in a workplace/organization they do not want to continue to work in, but perceive that they have few if any chances to leave for a better alternative elsewhere. Such a position has been referred to as being locked-in at the workplace. As professional life occupies a large part of the lives of many individuals, it could be argued that being locked-in has negative consequences for the individual. This also means that potential risk factors that lead to a locked-in position need to be identified to prevent such involuntary career non-mobility. However, there is paucity of research on this topic. Consequently, the overall aim of this thesis was to examine the phenomenon of being locked-in in terms of possible determinants related to the individual, and furthermore, consequences for well-being and health. In the present thesis, being locked-in was conceptualized as 1) combining being in a non-preferred workplace/organization with low perceived employability, and 2) adding an additional category including individuals at risk of becoming locked-in. The aim of Study I was to examine determinants of being locked-in. In particular, matching factors between the employee and the work, as well as demographics, were studied. The results indicated that misfit between knowledge/skills and work tasks was related to being locked-in. More specifically, it was revealed that being overqualified or not having enough physical or mental work abilities increased the odds ratios for being or becoming locked-in. Also, both unskilled manual workers and non-manual workers in lower positions were found to have higher odds ratios for being/becoming locked-in. Study II examined the relationship between helplessness and being locked-in, specifically focusing on the cross-lagged relationship between these two factors. The analyses indicated that helplessness worked in both ways, but should primarily be regarded as a determinant of being locked-in. Finally, Study III showed that there were differences in levels of reported depressive symptoms and self-rated health between employees who were stably locked-in compared to employees who were not being locked-in. The 'risk category' exhibited an intermediate position, with better well-being and health than those who were locked-in, but with worse well-being and health than those who were not locked-in. Furthermore, a change of locked-in status over time was followed by changes foremost in depressive symptoms. Specifically, positive changes in locked-in status corresponded to positive development, while negative changes in locked-in status were followed by negative development in terms of depressive symptoms and to some extent, self-rated health. In conclusion, this thesis contributes to knowledge of the phenomenon of being locked-in—which is a rather neglected topic in research—by incorporating it into a theoretical perspective of career control and PE fit, as well as by developing its conceptualization/operationalization. Furthermore, this thesis contributes to the research field by examining the relationship between being locked-in and various determinants associated with the individual, and consequences related to health.

Keywords: *being locked-in, employability, non-preferred job, career control, PE fit, matching factors, work ability, demographics, helplessness, mental health, well-being, self-rated health, depressive symptoms.*

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To my family – Mats, Gabriel
and Filippa

Abstract

In today's working life, it has been argued that employees themselves to a large extent are expected to take charge of their own careers. However, some individuals may feel a lack of control over their careers as they feel stuck working in a workplace/organization they do not want to continue to work in, but perceive that they have few if any chances to leave for a better alternative elsewhere. Such a position has been referred to as being locked-in at the workplace. As professional life occupies a large part of the lives of many individuals, it could be argued that being locked-in has negative consequences for the individual. This also means that potential risk factors that lead to a locked-in position need to be identified to prevent such involuntary career non-mobility. However, there is paucity of research on this topic. Consequently, the overall aim of this thesis was to examine the phenomenon of being locked-in in terms of possible determinants related to the individual, and furthermore, consequences for well-being and health. In the present thesis, being locked-in was conceptualized as 1) combining being in a non-preferred workplace/organization with low perceived employability, and 2) adding an additional category including individuals at risk of becoming locked-in.

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but with worse well-being and health than those who were not locked-in. Furthermore, a change of locked-in status over time was followed by changes foremost in depressive symptoms. Specifically, positive changes in locked-in status corresponded to positive development, while negative changes in locked-in status were followed by negative development in terms of depressive symptoms and to some extent, self-rated health. In conclusion, this thesis contributes to knowledge of the phenomenon of being locked-in—which is a rather neglected topic in research—by incorporating it into a theoretical perspective of career control and PE fit, as well as by developing its conceptualization/operationalization. Furthermore, this thesis contributes to the research field by examining the relationship between being locked-in and various determinants associated with the individual, and consequences related to health.

Keywords: being locked-in, employability, non-preferred job, career control, PE fit, matching factors, work ability, demographics, helplessness, mental health, well-being, self-rated health, depressive symptoms

Sammanfattning

Yrkeslivet upptar en stor del av många människors vardagsliv och kan dessutom vara nära knutet till ens identitet. Men hur är det om man inte längre trivs på sitt arbete och dessutom känner sig fast där för att man inte tror sig kunna få ett annat arbete? Att varje dag behöva gå till en arbetsplats man inte längre vill vara på borde upplevas som påfrestande och inverka negativt på ens välmående och hälsa. Detta fenomen har kallats för att vara *arbetsplatsinlåst* och tidigare forskning har funnit att denna avsaknad av kontroll över karriären har samband med sämre välmående och hälsa. Emellertid är forskning om arbetsplatsinlåst mycket begränsad och därmed behövs mer kunskap på detta område. Huvudsyftet med denna avhandling var därför att undersöka detta fenomen—genom att vidareutveckla konceptet arbetsplatsinlåst, att undersöka individuella faktorer som skulle kunna öka risken för att hamna i inlåst, samt att undersöka sambandet med hälsa. I avhandlingen definieras att vara inlåst som en kombination av att vara på en oönskad arbetsplats med att uppleva att man har små utsikter att få ett annat likvärdigt arbete. Inlåst särskiljs dessutom från en situation som i avhandlingen kallas *risk för inlåst*. Risk för inlåst definieras som att man just nu är nöjd med sin arbetsplats men inte vill vara kvar där i framtiden, samtidigt som man upplever sig ha små utsikter att få ett annat likvärdigt arbete. Anledningen till att en sådan situation utgör en risk är att om inte individens anställningsbarhet har förbättrats till den dagen då personen vill byta arbete hamnar individen per definition i inlåst. Vidare skulle en sådan situation kunna innebära en oro för framtiden.

Till grund för avhandlingen ligger tre empiriska studier utförda på data som är insamlade inom ramen för en svensk arbetslivskohortstudie ”The Swedish Longitudinal Occupational Survey of Health” (SLOSH), vilken följer ett stort representativt urval av den svenska arbetskraften genom enkätinsamlingar vartannat år. Olika kombinationer av datainsamlingar mellan 2010 och 2016 har använts i de aktuella studierna. Syftet med Studie I var att undersöka möjliga matchningsfaktorer mellan individ och jobb som kan påverka inlåst. Resultaten indikerade att uppleva sig som överkvalificerad för jobbet eller att inte ha tillräcklig fysisk och särskilt psykisk arbetsförmåga ökade risken för att vara eller hamna i inlåst. Dessutom studerades demografiska variabler—såsom kön, ålder, socioekonomisk position, bostadsort samt familjeförhållanden—där det framkom att dessa

faktorer generellt sett inte hade så stor betydelse för inlåsning. Ett undantag var socioekonomisk position, där tjänstemän som arbetade i jobb som inte krävde en högre utbildning samt de som arbetade i okvalificerade arbeten var överrepresenterade bland de inlåsta. Sammantaget indikerar dessa fynd att för att undvika inlåsning är utbildning—i form av akademiska studier men även yrkesutbildningar—betydelsefullt, men att det även är viktigt att kunna använda sina färdigheter i sitt arbete. Vidare verkar det vara av vikt att jobbet inte överstiger ens fysiska och mentala arbetsförmåga.

Dagens internationaliserade, konkurrensdrivna och föränderliga arbetsmarknad anses enligt många forskare ställa ökade krav på individen att själv ta ansvar och driva sin egen karriär i högre utsträckning än tidigare. Den som inte klarar av detta skulle kunna fastna i oönskade arbetssituationer. Därmed skulle personer som tenderar att känna sig hjälplösa inför sin livssituation i allmänhet kunna löpa större risk att hamna i inlåsning då det kan förväntas att de inte heller tar tag i sin arbetssituation. Syftet med Studie II var därför att undersöka huruvida det fanns ett samband mellan upplevd hjälplöshet och inlåsning. Förutom att testa om hjälplöshet kunde predicera inlåsning över tid, undersöktes också om ett motsatt samband fanns, dvs. om inlåsning i sin tur kunde påverka hjälplöshet. Resultaten visade att det fanns ett ömsesidigt samband mellan de två variablerna, men att sambandet från hjälplöshet till inlåsning var mer substantiellt. Detta skulle kunna indikera att individer kan hamna i en ond spiral där hjälplöshet och inlåsning föder varandra.

I den tredje studien var syftet att undersöka hälsoeffekter av att vara inlåst. Specifikt studerades skillnader i självskattad hälsa och mental hälsa mellan inlåsningsstatus (dvs. inlåst, risk för att bli inlåst, eller icke inlåst) samt hur förändringar av inlåsningsstatus relaterade till välmående och hälsa. Resultaten visade ett tydligt samband mellan inlåsningsstatus och hälsa: inlåsta mådde sämst, icke inlåsta mådde bäst och de som var i risk för inlåsning intog en mellanposition. Resultaten indikerade vidare att en utveckling mot bättre inlåsningsstatus var associerad med förbättrad hälsa, medan motsatt utveckling var kopplad till försämrad hälsa.

Sammanfattningsvis bidrar denna avhandling till att flytta fram kunskapsläget om arbetsplatsinlåsning genom att förfina conceptualiseringen, påvisa möjliga faktorer som kan påverka inlåsning samt att utöka kunskapen om samband mellan inlåsning och ohälsa över tid.

Förord

Att skriva en avhandling är både roligt och utvecklande, men stundtals enerverande och jobbigt. För att få ett sådant projekt i mål behöver man omge sig med smarta människor som kan ge en kloka råd och vägledning, men som också kan stötta en då det känns motigt och tufft. Jag har haft turen att ha sådana människor i min närhet som jag här vill tacka.

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Tack!

Johanna Stengård
Stockholm, april 2018

List of studies

- I. Stengård, J., Berntson, E. & Leineweber, C. & Bernhard-Oettel, C. (submitted). Who gets stuck in their workplaces? The role of matching factors, between individual and job, and demographics in predicting being locked-in.

- II. Stengård, J., Bernhard-Oettel, C., Berntson, E. & Leineweber, C. (2017). Stuck in the job: Does helplessness precede being locked-in at the workplace or vice versa? An analysis of cross-lagged effects. *Journal of Vocational Behavior*, 102, 15–27. <http://doi.org/10.1016/j.jvb.2017.06.001>

- III. Stengård, J., Bernhard-Oettel, C., Berntson, E., Leineweber, C. & Aronsson, G. (2016). Stuck in a job: Being “locked-in” or at risk of becoming locked-in at the workplace and well-being over time. *Work & Stress*, 30(2), 152–172. <http://doi.org/10.1080/02678373.2016.1163804>

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Introduction

The fit between individuals and their environment, or more specifically the fit between employees and their job, is an important matter for the employer, but certainly for the employees themselves. For the employer, it is important because a satisfied worker is often more committed to the organization, and for the employee, the fit is important because it is related to job satisfaction. To feel every day that one has to go to a workplace that does not feel satisfying anymore would be burdensome for most, especially if the understanding is that there is no good way out of the situation, as there are no other jobs one believes one can acquire. This situation of wanting to leave the workplace, but perceiving few possibilities to do so, equates to a position of being locked-in. Could such a situation take its toll on well-being and health? Are there some working conditions or some particular characteristics of individuals that make them more likely to end up in such an adverse situation than others? These are the kinds of questions that this thesis attempts to answer.

Typically, an employment begins with the recruitment process where the primary goal, both from the management's and the individuals' points of view, is to find a good match between employer and applicant. However, it does not end there—with a good match at the beginning of an employment—since both organizations and individuals undergo changes over time. For instance, organizations and workplaces are reorganized continuously (Caldwell, 2013; Van Dam, 2013), which may impact the content of the work tasks and working conditions. Also, individuals change with time. They grow older, whereby they develop, learn new things, and build experiences, at the same time as their life situations are subject to alterations. These changes influence interests and goals pertaining to work and life in general, which from time to time will be reevaluated (see e.g., Kristof-Brown & Jansen, 2007; Ostroff & M., 2007). The fit between workplace/organization and the employee may thus be affected on a recurrent basis. In this process—when facing changes that may lead to a mismatch between person and job—many individuals will make efforts to move to other organizations that can better cater for their wishes and needs, or try to improve the terms of their workplace to better match their requirements. Usually, such changes happen a number of times during an employee's occupational career (Fouad, 2007; Kristof-Brown & Jansen, 2007).

However, from time to time the career may not evolve as desired since the individuals themselves do not always feel that they can take charge over their work situation. They could perceive that they cannot influence their current workplace or their work tasks to fit them better, or that there are no other suitable alternatives on the labor market to apply for that would fit them better. Hence, they feel stuck (or trapped) in the present, unwanted job situation, lacking possibilities to move to other workplaces/organizations. In terms of the career this constitutes involuntary non-mobility and such a situation has been described as ‘being locked-in’ (Aronsson, Dallner, & Gustafsson, 2000; Aronsson & Göransson, 1999). This lack of fit and lack of other suitable options on the labor market could concern the workplace or/and the vocation all together, in cases where the individuals are not satisfied with their profession. Few studies have been conducted in this research area thus far, even though being locked-in is a contemporary issue. For example, a large Swedish newspaper reported that many employees wanted to change jobs, but very few were actively seeking new employment (Hedlund, 2014). At the turn of the millennium it was indicated that in the Swedish labor market as many as one third of all employees were either in a non-preferred vocation or in a non-preferred workplace, and one in five employees was in both a non-preferred vocation and workplace/organization (Aronsson et al., 2000). Also, in a recent publication, more than one in five employees indicated to be in a non-preferred vocation (Canivet et al., 2017), and this was found to pose comparable risks to well-being development as for example situations of precarious employment.

To perceive having the possibility to change jobs whenever one wishes or needs to do so is tied to career control and reflects having control over the work situation. Here, sometimes, a difference has been pointed out regarding control *over* work and control *in* work (Aronsson, 1989). Lack of control in the work, that is not having the possibilities of influencing the work tasks as such, has proved to be one of the most important determinants of stress and strain in the work context (Karasek & Theorell, 1990); therefore, it seems likely that being locked-in—as implying lack of control over the career with regard to where to work—would cause strain to the individual as well. Despite being the target of a few studies, the phenomenon of being locked-in has largely been neglected in research, which is surprising considering that work is a central part of our identity (Baumeister & Muraven, 1996; Fouad & Bynner, 2008; Holm & Hovland, 1999).

In an attempt to fill this void, this thesis will focus on the category of employees who are locked-in at their workplaces, with the aim of studying determinants and outcomes of being locked-in. In order to better understand

the phenomenon and the context in which it takes place, a brief description of careers in today's labor market will first be laid out.

Careers in the 21st century

During the last decades, the labor market has been subject to major changes driven by globalization and rapid technological developments (see e.g., Lawrence, Hall, & Arthur, 2015; Ployhart & Bliese, 2006; Van Dam, Bipp, & Van Ruysseveldt, 2015). This means more competition between organizations worldwide. Furthermore, in many developed economies the service sector has grown, as has IT work, while the manufacturing sector has decreased, with outsourcing of production to developing countries (Baruch, 2015). To survive, organizations need to be more adaptive and flexible, meeting the demands of the market and taking opportunities that arise. One way for organizations to be prepared to meet changing market requirements is to increase the number of temporary workers they employ; thus the organizations can quickly reduce their labor force if deemed necessary (i.e., numerical flexibility: Reilly, 1998). Also, employers can choose to train their employees to manage several different work tasks, then when necessary employees can promptly be transferred between positions and roles internally in the organization (i.e., functional flexibility: Reilly, 1998).

Naturally these changes have impacts on both temporary and permanent workers, who as an effect also need to be more flexible when taking on new work roles when required, and have to develop their skills in order to become/remain attractive on the labor market. As a consequence, employees' and employers' expectations of each other (i.e., the psychological contract (Rousseau, 1995)) have changed. Traditionally, the psychological contract mainly covered loyalty in return for job security, often with an underlying anticipation from both parties of a career within the organization (Baruch, 2015; Hiltrop, 1995). At the present time, though, flexibility is very central, as it has been suggested that workers exchange flexibility in return for empowerment and opportunities for (skill) development (Baruch, 2015; Hiltrop, 1995). As a consequence, psychological contracts have evolved into more individual deals (Rousseau, 2005). Importantly, these changes mean that individuals cannot depend on the employer for their (career) development and career success, but need to take more responsibility for themselves over such matters. This means that in the 'modern' career, the responsibility for the career development has been individualized much more than was previously the case.

Several concepts targeting these 'modern' careers have been brought forward, where the two most influential ones are the protean career (Hall, 1976, 1996)

and the boundaryless career (Arthur, 1994). One important feature of the protean career is that it is value driven, meaning that the values a person holds determine what measures career success (Briscoe & Hall, 2006). Thus, a successful career no longer equals achieving objective (extrinsic) career success such as promotions, status, and higher salaries, but attaining subjective (intrinsic) career success—which concerns job (life) satisfaction, increasing employability, and the feasibility of combining family life with work (Hall, 2004; Lin, 2015; Shockley, Ureksoy, Rodopman, Poteat, & Dullaghan, 2016). Also, protean careers are self-directed, which pertains to perceptions of being responsible for one's own career and its outcomes, whereby the individuals themselves are envisioned to engage in self-management behaviors in order to actualize career goals (De Vos & Soens, 2008). The boundaryless career, on the other hand, mainly refers to the boundaries of the organizations, suggesting that many workers are not as tied to one organization as before, but move between employers more frequently as well as being more dependent on external networks (outside of the organization) for career success (Arthur, 2014; Gubler, Arnold, & Coombs, 2014).

According to Briscoe, Hall, and Frautschy DeMuth (2006) individuals vary in their orientations and display different degrees of protean and boundaryless orientations toward their careers. As today's flexible labor market offers much freedom and latitude to sculpture one's own career (de Grip, van Loo, & Sanders, 2004) satisfying one's own needs and goals, high protean and boundaryless orientations are suggested to be advantageous for the individual (Briscoe & Hall, 2006). However, the requisite for individuals to take more responsibility for themselves over their career development also puts pressure on the employees. Individuals not proactively taking charge could get stuck in unwanted positions or over time get marginalized in reorganization processes. For instance, Briscoe and Hall (2006) considered employees who had a combination of low protean orientation and low boundaryless orientation as 'trapped' (or 'lost'), since they ultimately were limited to very narrow opportunities that they had little control over, and thus risked ending up in trapped positions.

Despite a general move toward this 'modern' labor market, one must keep in mind that not all organizations and individuals are equally affected by it, for instance, some sectors of the economy may be less impacted than others (Baruch, 2015; de Grip et al., 2004; Hendry & Jenkins, 1997), such as public authorities, like the armed forces and the police. Yet, workers in these sectors may in some cases only have just one or a few employers to choose from, which also may put the individuals at risk of becoming stuck in their workplaces over time.

Employees being locked-in

Being in control over one's career means that when there is a *willingness* for a career change, there also is the *ability* to act so that things change in the desired direction. However, this is not the case for individuals who feel stuck in their jobs, as being locked-in means having the willingness to leave the workplace, but at the same time one lacks the ability to do so because there are few (if any) alternatives on the labor market to choose from. This latter condition equals having low employability (Berntson & Marklund, 2007; De Cuyper, Mäkikangas, Kinnunen, Mauno, & De Witte, 2012). Studies on being locked-in are few. Moreover, either willingness (that is preferences to stay in vs. change workplaces in the future, see for example Aronsson et al., 2000) or ability (having high vs. low employability, see for example Furåker, Nergaard, & Saloniemi, 2014) have been utilized to capture the phenomenon, but hardly any studies exist that operationalize being locked-in as a combination of low employability and non-preferences for one's workplace (for an exception, see Fahlén et al., 2009).

Why people end up in locked-in positions is an important question and it could be argued that there are both contextual and personal reasons for that. For example, structural factors related to the labor market on a national level, or in a particular sector or profession, can impact individuals' career outcomes (Baruch & Bozionelos, 2010). For instance, according to a study employees perceived higher employability during economic prosperity compared to times of economic recession, as well as higher employability in metropolitan areas (Berntson, Sverke, & Marklund, 2006). Therefore, the economic conditions of the labor market, both at national and local levels, may be associated with the number of employees being locked-in. Hence, where one lives and works may be connected to the risk of becoming locked-in. Also, one's situation outside of the work context may matter. For instance, having children to provide and care for, or having other family obligations (e.g., care for older relatives), may restrict the possibilities to move to where the jobs are and to make career investments.

Individual factors as well, such as demographics, may be associated with who becomes locked-in, because certain demographics may be linked to more resources that can facilitate the career. For one, some demographical groups (based on e.g., ethnicity, gender, or age) are at greater risk for facing stereotyping and discrimination in the labor market (see for example Aigner & Cain, 1977; Arai, Gartell, Rödin, & Özcan, 2016). Furthermore, different vocations and labor market sectors provide different working conditions, which may mean that the number of employees who feel dissatisfied and locked-in may differ between sectors. Since different vocations often attract different demographical groups (e.g., with relation to gender, socioeconomic

class), demographics may therefore also indirectly be associated with being locked-in. In other words, some demographical groups may be more vulnerable to ending up in locked-in positions than other groups. Supporting this notion, there is empirical evidence that factors such as age and education have associations with employability (Berntson et al., 2006) and with preferences toward one's workplace (Aronsson et al., 2000). Another possibility is that one has an education that is out of date or not sought after in the labor market, which can evoke feelings of being over- or underqualified. This may be related to being locked-in if these individuals do not feel capable of making desired job changes.

Other factors tied to the person that could affect locked-in feelings concern individuals' different sets of dispositions that influence how they cope with life and tackle obstacles. Indeed, it has been found that individuals' tendencies to interpret life events in general affects how individuals view their opportunities to steer their careers (Hirschi, 2014; Hirschi, Abessolo, & Froidevaux, 2015; Kirves, Kinnunen, & De Cuyper, 2014). Such dispositions are part of the psychological capital. How such factors relate to being locked-in has not been studied in detail. But feeling helpless—as opposed to feeling in control and taking a proactive approach—may leave career development at chance (Briscoe & Hall, 2006) and may as a consequence be associated with being or becoming locked-in over time.

In addition to understanding the determinants of being locked-in, the consequences of such a position are important to comprehend. Being in such an adverse situation should have implications for several areas. For one, being in a non-preferred workplace has by itself been found to be associated with less learning at work and less support from managers (Aronsson et al., 2000), which may indicate that employees who are in the 'wrong' workplace may not be further invested in by their organizations (or possibly that the individuals in such a situation, themselves have withdrawn and show little interest in getting support and development at the current workplace). Employability has for its part been reported to increase job commitment (Berntson, Näswall, & Sverke, 2010; De Cuyper & De Witte, 2011) and job performance (Bozionelos et al., 2016; De Cuyper et al., 2014). Hence, it is not unlikely that the job commitment and performance by a locked-in person will be negatively affected. Also, individuals' well-being and health should be negatively impacted by being in locked-in positions, as both low employability (Berntson & Marklund, 2007; Vanhercke et al., 2015) and workplace non-preference (Aronsson et al., 2000; Muhonen, 2010), separately, have been found to relate to poor well-being and health, but studies on the combined effects following up health over time are lacking.

Aim

The general aim of this thesis is to increase knowledge about being locked-in at the workplace by evolving the conceptualization and by studying determinants as well as implications for well-being and health. There are four specific aims of the thesis and Figure 1 shows an overall model of how the studies each contribute to knowledge in the field.

The *first aim* of this thesis—and the focus of Study I—is to investigate determinants of being locked-in; are there some demographic factors, such as gender, age, socioeconomic position, residential region (where one lives and works), or family situation that impact the odds for being locked-in? Furthermore, does a low correspondence between the job demands and the individual's abilities, in terms of being over- or underqualified or having poor physical or mental work abilities, increase the odds for being or becoming locked-in?

A *second aim* is to investigate whether psychological capital/deficit, such as feeling helpless in controlling one's life, is related to being locked-in. Accordingly, the aim of Study II is to investigate possible associations cross-sectionally, as well as over time, in order to find out whether feeling helpless at one point in time may affect being locked-in later, or whether it is rather the other way around. Thus, helplessness may be a determinant as well as an outcome in regard to being locked-in.

A *third aim*—and the aim of Study III—is to investigate implications for well-being and health over time by comparing locked-in employees with not locked-in employees. Moreover, whether changes in locked-in status affect well-being and health will also be studied.

In Studies I and III, an additional aim (the *fourth aim*) is to further advance the conceptualization of being locked-in. Besides studying locked-in versus not locked-in individuals, a third group will be studied—'being at risk of becoming locked-in'.

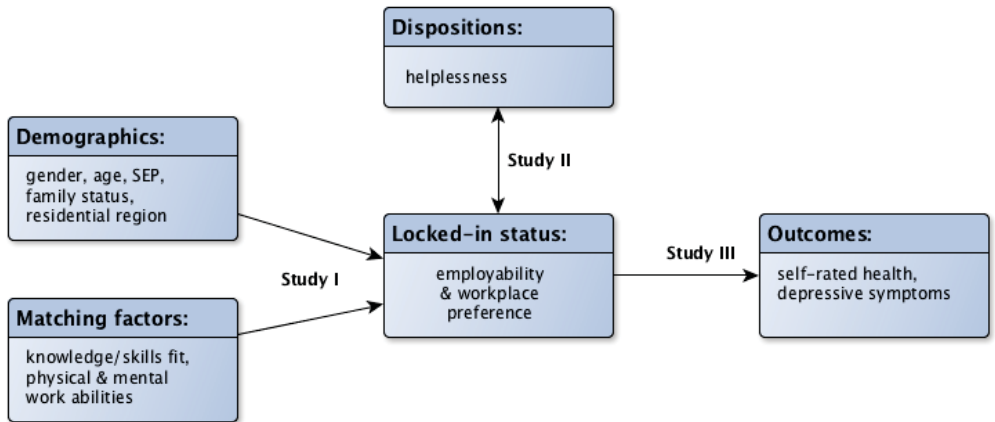


Figure 1. Conceptualization model.

Being locked-in: Conceptualization

There are two important aspects of being locked-in—the willingness to make a job change, in combination with the lack of ability to do so. These two aspects will be described next.

Willingness to make a job change

Feeling satisfied with the job is an important part of working life for many individuals and thus it is important for them to achieve and maintain a good fit between themselves and their jobs. Such a fit has been the focus of the person–environment (PE) fit theory (Edwards, 1991; Kristof, 1996), which is a well-known theoretical framework in the organizational psychology field (Yu, 2009), and in this thesis it is used to help understand the willingness part of the locked-in phenomenon.

Person–Environment fit

PE fit can be defined generally as “the congruence, match, similarity, or correspondence between the person and the environment” (Edwards & Shipp, 2007, p. 211). The *person* (with regard to PE fit), concerns factors tied to the individual such as knowledge, skills, and abilities (commonly shortened to KSAs), as well as other factors such as goals, attitudes, preferences, values, interests, and personality traits (Kristof-Brown, Zimmerman, & Johnson, 2005; Oh et al., 2014). How the *environment* is defined depends on what level is the target, for instance the entire organization or job task characteristics. Thus, there are different levels of PE fit pertaining to the work context, including fit between, from the broadest perspective person–vocation (PV fit), narrowing down to person–organization (PO fit), person–job (PJ fit), and person–group (PG fit) (Jansen & Kristof-Brown, 2006).

There are different ways to approach PE fit; one perspective is supplementary fit, which targets the degree to which the individual’s characteristics (values, goals, attitudes) are aligned with the environment (norms, culture, values) (Kristof, 1996). This similarity can be tested by comparing the individual with other individuals in the organization, vocation etcetera (Edwards, Cable,

Williamson, Lambert, & Shipp, 2006). Another central approach is complementary fit, which focuses on the mutual exchange between the environment and individual in terms of requirements met by the other (Edwards et al., 2006). There are two different dimensions for this exchange: needs–supplies fit and demands–abilities fit. Needs–supplies fit targets how well the organization/job fulfills the needs, desires, goals, and preferences of the employee. For example, organizations supply psychological and financial resources, and opportunities for growth (Kristof, 1996). The other dimension, the demands–abilities fit, focuses on demands put on the employee by the organization/employer and the abilities the employee has to meet those demands, for instance, commitment, effort, knowledge, skills, and resources (e.g., time and energy) (Edwards & Shipp, 2007; Kristof, 1996).

All levels of fit (e.g., PV, PO, PJ fit) influence the overall experienced PE fit (Jansen & Kristof-Brown, 2006). The empirical evidence shows for instance that PO fit and PJ fit are both strongly related to higher job satisfaction, higher organizational commitment, and lower turnover intentions (Kristof-Brown et al., 2005; Oh et al., 2014).

To summarize, PE fit/misfit can occur through different mechanisms, but regardless of what lies behind, the individuals experience whether there is an overall fit or not (Edwards et al., 2006). If there is an overall experienced misfit, the individual is likely to feel less satisfied with his/her job, feel less committed toward the organization, and have higher intentions to leave the organization/workplace (Kristof-Brown et al., 2005; Oh et al., 2014)—that is, one's preference for continuing to work in this job in the future is low.

Preference for the workplace

At the turn of the millennium, researchers Aronsson and colleagues (Aronsson et al., 2000; Aronsson & Göransson, 1999) began to show interest in the phenomenon of individuals stuck in their jobs. This area had hardly been studied before, even though many individuals could identify with such adverse situations. Aronsson and colleagues predominantly focused on employees who either felt non-preference toward their vocation (i.e., not wanting to remain in their vocation in the future), or non-preference toward their workplace/organization (i.e., not wanting to remain in their workplace/organization in the future), or both. There is a significant difference between shifting from a non-preferred workplace/organization to a preferred one compared to shifting from a non-preferred vocation to a completely new one. The costs associated with changing vocation are usually more extensive as different vocations generally require special education and skills (Blau, 2007; Meyer, Allen, & Smith, 1993; Ng & Feldman, 2007), and consequently, vocational changes are not the focus of this thesis.

Workplace preferences, the willingness to remain in a workplace even in the future have been operationalized as a dichotomy in previous research—as either preference or non-preference (Aronsson et al., 2000; Muhonen, 2010). However, to allocate employees into only two categories with regard to workplace preferences—those who feel (positive) preferences toward their workplace/organization and those who do not—can be an overly simplified approach. There is yet another possibility to consider; individuals who do not want to stay in their workplace/organization in the future, but are satisfied with the arrangements for the time being.

As a consequence, the non-preference measure was further developed. The non-preference answer alternative was split into two choices where both alternatives still reflected not wanting to stay in the workplace/organization in the future, but one equated to being dissatisfied with the workplace while the other equated to being satisfied for the time being (Magnusson Hanson et al., 2018). As such the elaborated measure reflects that some employees want to leave right away while others are not in a hurry. Also, the measure has a resemblance to measures of turnover intentions, but in addition also captures that there may be a relevant time gradient.

To sum up, the preference concept utilized in this thesis captures an overall individual perception of whether one wants to remain in one's workplace even in the future, versus not. Additionally, those who are not willing to remain are further differentiated; there are those who feel satisfied for the time being and those who do not and would prefer to leave the workplace immediately.

However, having the willingness to change workplace does not mean one has the possibility or ability to do so, which is an important aspect of the lock-in phenomenon (Furåker, 2010). Therefore, whether individuals perceive themselves as having control over their career or not is central to the locked-in concept.

Ability to make a job change

One of the three innate psychological needs that humans possess has been argued to be autonomy (Ryan & Deci, 2000). Thus, being in control over one's life and different aspects thereof is of great importance for life satisfaction and well-being. In regard to working life, the ability to make a job change when needed or wanted reflects having control over the career. Therefore, the concept of ability is an important dimension of the locked-in phenomenon, since whenever the fit between person and environment becomes unfavorable and the willingness to stay decreases, the ability determines whether one has

the resources to leave such an adverse situation. Although work life research in general has focused on the concept of control *in* working life (i.e., to meet the demands of the work) (cf. Bakker & Demerouti, 2007; Hackman & Oldham, 1976; Karasek & Theorell, 1990), this thesis will focus on the concept of control *over* work, or more specifically, control over the career.

In order to understand control *over* work, models based on principles of self-regulating processes may be useful, which can be found in all kinds of self-regulating systems—such as in machines and in living organisms—upholding equilibrium or striving toward new goals. Self-regulating processes have already, for a long time, inspired (control-) models in work and organizational research (for a brief review see Edwards, 1992; Eulberg, Weekley, & Bhagat, 1988).

Control over the career

According to the control theory (Carver & Scheier, 1982)—which builds on principles of self-regulating processes—individuals (in any aspect of life) compare their current state/condition/behavior to a desired reference value, and if any discrepancy is detected, efforts are made to close or decrease the gap (self-regulation). Such a reference value could, for example, reflect the type of person one wants to be or it could reflect one's dream home or the job role one desires. The new (current) state will then through a feedback loop once again be compared to the reference value and the process will repeat itself until the gap is closed or the individual refrains from any further attempts. This process can be either unconscious or more reflective, where models of control in the work context primarily target conscious and intentional self-regulation in regard to discrepancies or unfulfilled goals (Van Dam et al., 2015). Another central element of Carver and Scheier's (1982) control theory is outcome expectancy, which is an assessment of the likelihood that one will succeed in resolving or decreasing the discrepancy between the goal and the current state. In other words, as part of the self-regulating process, the individual will assess whether the goal is regarded as attainable or not. If the outcome expectancy is low, the probability that the individual will withdraw from further efforts increases. This is consistent with other theories that state that low expectancy of accomplishing a certain goal or task will negatively impact one's motivation and efforts to strive for that goal/task completion (e.g., Atkinson, 1964; Locke & Latham, 2002; Vroom, 1964).

The mechanisms displayed in terms of the control theory should also come into play in regard to control over the career, explaining the motivation to decrease any discrepancy between the current state (e.g., one's current workplace/organization (or being unemployed)) and the desired reference workplace/organization (that one would like to have). In line with this, control

theory has been integrated in models of PE fit (Edwards, 1992; French, Caplan, & Harrison, 1982; Yu, 2009), pertaining to discrepancy in the form of PE misfit at work and attitudinal outcomes and stress-coping responses. Not being satisfied with one's current workplace may thus prompt the employee to enact proactive behavior in the work context aiming at either improving certain aspects of working conditions or promoting the career (Van Dam et al., 2015), where the overarching goal would be to increase PE fit (Parker & Collins, 2010).

Proactive behavioral patterns considered important in the career context have been studied using terminologies such as, proactive career behaviors (see e.g., Claes & Ruiz-Quintanilla, 1998), career self-management behaviors (see e.g., De Vos & Soens, 2008), and career competencies (see e.g., Akkermans, Brenninkmeijer, Huibers, & Blonk, 2012). For example, Akkermans et al. (2012) developed a measure for evaluating career competencies where career control is one dimension. Career control in Akkermans et al. (2012) construct is defined as “actively influencing learning processes and work processes related to one's personal career by setting goals and planning how to fulfill them” (p. 251). Thus, according to this definition, career control has a future focus on the individuals' thoughts about what they want to achieve in their (near) future careers and their perceived ability to make such plans. One reason for the future focus of this definition, i.e., “setting” and “planning”, could be that the researchers' main focus was to study young individuals' career competencies at the beginning of their careers. However, as this thesis focuses on individuals who are already employed, another recently positioned definition by Guest and Rodrigues (2015) may be more appropriate. According to their definition, career control accounts for how much the individuals perceive themselves as being in charge (control) over their careers by for instance deciding on their own actions, and making choices and decisions in regard to these. In the present thesis, it is further suggested that career control can be seen as individuals' perception of their ability to improve their work situation so that it is better suited to them—that is, improving PE fit—when needed or desired, to steer the career in the desired direction.

Moreover, as many careers of today involve crossing organizational boundaries, to be able to be more proactive in the realm of one's career (such as deciding on one's own actions, making choices and decisions), employability—commonly defined as the perceived possibilities of getting a new job (Berntson et al., 2006; Vanhercke, De Cuyper, Peeters, & De Witte, 2014)—should become more important for feeling control over one's career (De Cuyper, Mäkikangas, et al., 2012; Pruijt & Derogee, 2010; Vuori, Toppinen-Tanner, & Mutanen, 2012).

Perceived employability

Researchers have put forward the idea of employability perceptions as a personal resource (De Cuyper, Baillien, & De Witte, 2009; De Cuyper, Mäkikangas, et al., 2012; Kirves, Kinnunen, De Cuyper, & Mäkikangas, 2014; Vanhercke et al., 2015), as employability perceptions promotes a sense of control over the career and working situation (De Cuyper et al., 2009; Fugate, Kinicki, & Ashforth, 2004; Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009). Personal resources are aspects tied to the self, providing the feeling of ability to control and impact the environment (Hobfoll, Johnson, Ennis, & Jackson, 2003).

Furthermore, personal resources help people to gain additional resources (Kirves, Kinnunen, De Cuyper, et al., 2014), suggesting that employees with high perceived employability have a powerful negotiation position and thus can accumulate further resources from their employer, for instance more training (Vanhercke et al., 2015). As such, perceived employability would not only be of importance with regard to possibilities for future mobility, but it would also empower the individual (Pruijt & Derogee, 2010) and provide feelings of ability to impact the current workplace (De Cuyper et al., 2009; De Cuyper, Mäkikangas, et al., 2012; Hobfoll et al., 2003), and to cope with adversities at the workplace (Berntson & Marklund, 2007; Berntson et al., 2010). For instance, Rusbult, Farrell, Rogers, and Mainous (1988) provided empirical evidence that high employability increased the likelihood that employees would try to actively impact the working conditions at the current workplace or become more intent on leaving the organization altogether. Hence, employability is significant for career control, providing the individual with the ability to change jobs when wanted or needed. Empirical evidence supports that career control relates to the individuals' perceptions of their employability (Akkermans et al., 2012; Veld, Semeijn, & van Vuuren, 2016).

The focus in research on employability has been on individuals in different career stages, for example students first entering the labor market (Rothwell, Jewell, & Hardie, 2009), unemployed re-entering the labor market (McArdle, Lea, Briscoe, & Hall, 2007), and already employed individuals (Berntson & Marklund, 2007). The latter category is the focus of the present thesis, since the aim is to study those who are locked-in at their current workplace; hence a prerequisite of the present thesis is that the individuals are gainfully employed and have a permanent contract with their employer. Also central to the present thesis is possibilities to transfer outside of the organization, i.e., external employability (and not internally), as such transfers probably are of more relevance for workers in today's more flexible and unstable labor market (De Cuyper, Van den Broeck, & De Witte, 2015).

Since the emphasis of this thesis is on being stuck in a workplace/organization, employability primarily targets the possibilities to leave an unwanted working situation, and thus a new job is defined as a ‘similar’ job and not as a ‘better’ job, which more reflects career advancement. Furthermore, the focus of this thesis is on the individuals’ perceived employability, as individuals’ perceptions ultimately affect how a person thinks and acts (Lazarus & Folkman, 1984). This implies that individuals who perceive themselves as having low employability may not try to find another job even though they wish to.

Many individuals do not want to be forced to move to find another job position; instead they prefer to stay in their local area (Törnroos, Bernhard-Oettel, & Leineweber, 2017; van Ham, Mulder, & Hooimeijer, 2016). Therefore, the definition of employability used in this thesis is restricted to ‘without having to change residence’ (also utilized in e.g., Berntson et al., 2006). This rules out the risk of individuals being falsely categorized as ‘not locked-in’ who would really perceive themselves as locked-in as they may only find new jobs that are not within commuting distances, which they would not consider feasible to accept.

To sum up, this thesis defines employability as perceived prospects of transfer to similar jobs in other workplaces, without having to move. Employability is regarded as a resource that reflects the ability to influence one’s work situation and is therefore central for career control.

Willing but not able—being locked-in

To have control over one’s career means that when wanting to make a career change one also has the ability to do so. In other words, when the willingness exists to change jobs but the individual perceives it as not doable, it reflects low control over the career—the individual is stuck in an unwanted job position. In this thesis, being locked-in is defined as having low employability in combination with low preferences toward one’s workplace. The latter reflects being dissatisfied and wanting to leave the workplace/organization.

Being locked-in as a process model

The phenomenon of being locked-in may be viewed in the light of the control theory and PE fit. The alignment between the locked-in phenomenon and these theories is depicted in Figure 2. The model/process displayed in Figure 2 starts with the idea that the individuals evaluate the overall PE fit between the workplace and themselves. PE fit constitutes the reference value, something

the individual would want to have, and which would lead to a (positive) preference toward the workplace. Pursuant to the control theory, this comparison may be triggered by a disturbance (a change) that occurs, either in personal or environmental circumstances (depicted as “changes/disturbances” in the model). But it does not have to, as the individual will assess fit on a recurrent basis. If there is PE fit, that is, if the current state and desired state are congruent, there is no problem that may lead to lock-in—the individual is not being locked-in.

If there is low PE fit (depicted by a ‘no’), however, according to the control theory the individuals will assess their expected outcomes of trying to regulate the misfit. Fit could be improved, either by transferring to another workplace with better fit or by modifying conditions at the current workplace to be more aligned with the reference value, for instance through negotiating one’s working conditions. Both alternatives would be more feasible if the individual perceives him/herself as having high employability (Rusbult et al., 1988), because of employability’s proposed capacity as a personal resource empowering the individual to take control over the working situation (De Cuyper et al., 2009; Vanhercke et al., 2015). Hence, as depicted in Figure 2, if perceived employability is high, the individuals have better prerequisites for adequate self-regulation and may either put effort into trying to influence their current working conditions or change their workplace/organization. On the other hand, if the individuals have low perceived employability, they may discontinue investigating what opportunities are available, which makes them even less likely to succeed in improving their PE fit. They may thus find themselves being locked-in. Thus, in this model, for those not in their preferred workplace, employability plays a central role in career control. Moreover, locked-in status—being locked-in or not being locked-in (a third alternative: ‘at risk of becoming locked-in’ will be introduced later)—is the outcome of the process. However, as the dashed arrows from the different locked-in states suggest, the process will repeat itself. For instance, this may happen when a change occurs, either related to the person or to the environment, that could affect PE fit. In the model, there is also a box containing rather stable ‘background factors’, i.e., dispositions and demographics, which are suggested to influence the self-regulation process in regard to PE fit, employability levels, and attempts to improve PE fit.

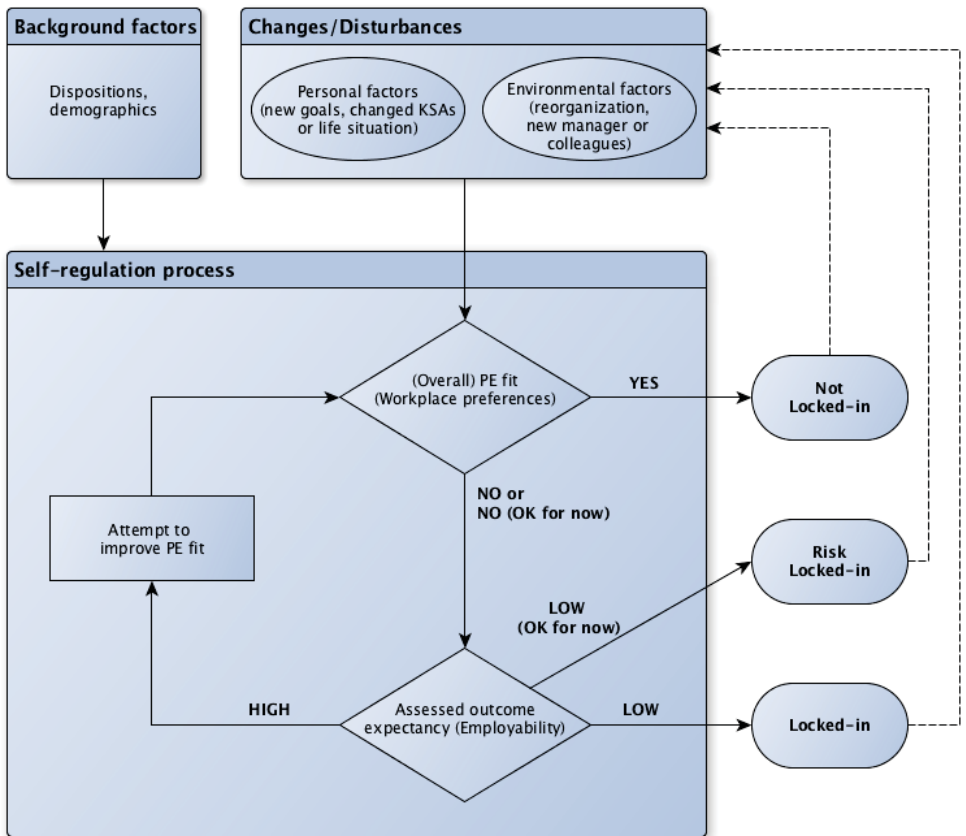


Figure 2. Process model of being locked-in (inspired by Carver and Scheier’s (1982) control theory)

At risk of becoming locked-in

As discussed earlier, there might be employees who do not want to stay in their workplace/organization in the future, but who nevertheless are satisfied for the time being. Considering the control theory, it is possible that individuals in this category may feel that the PE fit between themselves and their workplace is not an optimal one for the long run, but still they perceive it as acceptable for now as the job suits their career plans. For example, they may have taken the job position as a potential stepping-stone toward a better job (de Jong, De Cuyper, De Witte, Silla, & Bernhard-Oettel, 2009; Shipp & Jansen, 2011), as they need working experience and/or a chance to prove themselves to land a more attractive contract. To put a goal on hold may be a beneficial approach if expecting that the chances of attaining it later will be improved (Wrosch, Scheier, Carver, & Schulz, 2003). As long as having a job with non-optimal PE fit for the future is a voluntary decision—for instance, a particular employment can be part of a career plan or suits one’s family life—

there should be no problem. However, Shipp and Jansen (2011) suggested that when assessing PE fit, the past and the predicted future fit are also taken into account; hence, individuals may be affected beforehand by a potential future PE misfit. That means that individuals may ruminate about an anticipated future misfit (Edwards, 1992). Thus, if the individuals foresee that in the future they will not be able to make the wished-for job transfer due to low employability, they may consider this an actual problem and the individual is at risk of becoming locked-in. This may be accentuated since low employability often restricts possibilities to improve a current work situation (De Cuyper et al., 2009; De Cuyper, Mäkikangas, et al., 2012; Hobfoll et al., 2003). This category of employees who are at risk of becoming locked-in has not been studied before. This thesis therefore investigates whether such a risk category of individuals, who may become locked-in, needs to be separated from those who are locked-in. Perhaps the two categories differ in demographic characteristics, or face different consequences in terms of their well-being and health.

In Figure 2, the risk category is also depicted. According to the model, the evaluation of PE fit could, besides 'yes' or 'no', result in 'no, but OK for now'. As shown in the figure this will, as when the answer was 'no', result in an assessment of the outcome expectancy for improving PE fit (i.e., employability). If, employability is evaluated as low, the outcome of the model process will be that the person is at risk of becoming locked-in.

Determinants of being locked-in: Individual factors

The reason for becoming locked-in may be found in both contextual and individual factors. Contextual factors may for example be unemployment rates, structural changes in the labor market due to technical advancements, the society's view on work and its work force. Contextual factors are not the focus of the present thesis, but may indirectly impact on locked-in status through their effect on the situation tied to different demographic factors. Individual factors pertain to a wide range of characteristics tied to the person, such as human capital (e.g., KSAs), social capital (e.g., social networks), demographics, and dispositions (e.g., the psychological capital). This thesis will focus on whether there are demographic factors (including family situation) associated with being locked-in and whether those factors may increase the odds for becoming locked-in, as well as whether some work-related individual matching factors (with regard to human capital) are related to being locked-in. This thesis will also examine the psychological capital, helplessness in particular, as a final possible determinant.

Matching factors

Being locked-in has in this thesis been suggested to reflect an overall experienced PE misfit between the individual and the workplace/organization. It has also been described that different levels of PE fit, such as PJ or PO fit, together contribute to the overall PE fit (Jansen & Kristof-Brown, 2006). Thus, it is likely that specific matching factors between the employee and the job (PJ fit) may be associated with the individuals' preferences toward their workplace/organization, and by extension, put the individual at greater risk of ending up in locked-in positions. The present thesis focuses on such matching factors in terms of poor work ability and being over- or underqualified for the job.

Overqualified or underqualified

Abilities in terms of qualifications play a central role in studies on PJ fit, and there are two types of qualification imbalance: skill mismatch and (formal)

education mismatch (Quintini, 2011a)¹. In several studies, the two are combined in a common construct, where the individuals' perceptions of whether their qualifications match their job are the focus (see e.g., Johnson & Johnson, 2000b; Lobene, Meade, & Pond, 2015; Maynard, Joseph, & Maynard, 2006)—corresponding to the terms over- and under-qualification. Over-qualification thus corresponds to having higher education than the job position requires and/or having too many unutilized skills for the job.

In line with the suggestion that over-qualification and non-preference for the job can associate positively with each other, it has been indicated that employees who perceive themselves to be overqualified for their jobs in some respects feel less satisfied with their work situation (Johnson & Johnson, 2000a; Lobene et al., 2015) and also have higher intentions to leave their organizations (Maynard et al., 2006). In addition, over-qualification is very likely positively related to being locked-in, as the employability level is probably already low in cases where the individuals have accepted a job that is below their ability. Additionally, employability may be reduced over time because the individuals do not use their skills, which, as a consequence, do not further develop. Being in such situation, the individuals in one study were found to feel anxiety of reducing their attractiveness to other employers (Bolino & Feldman, 2000) and thereby risk becoming locked-in. Supporting this notion, it has been found that employers tend to be reluctant to recruit job applicants who they perceive as being overqualified for the job (Erdogan, Bauer, Peiró, & Truxillo, 2011). Similarly, a study showed that employers equate job seekers' experiences of over-qualification with unemployment when assessing job applicants (Pedulla, 2016).

Less investigated, but nevertheless a possibility, is the opposite mismatch—under-qualification—where the employees lack the (formal) education corresponding to their job role, and/or lack important skills in how to perform their job (Quintini, 2011a). This could be the case for instance, if someone is hired or promoted in an organization that has difficulties to fill vacant positions. In regard to not having the right (formal) education and/or skills, this may be a potential problem in several ways. First, an underqualified individual may feel overwhelmed by all the tasks in the job, and not mastering one's work tasks may lead to low preferences to remain in the job. Second, even if an underqualified person may learn to handle job tasks in the present job, job alternatives elsewhere may be limited if these require the knowledge of more general principles. Third, problems may occur if the underqualified individual wants to acquire a similar job in another organization, and this organization only hires individuals with the right formal education.

¹ Note that a somewhat different terminology being used

To summarize, being over- or underqualified for one's work tasks may increase the risk of being/becoming locked-in, since such a misfit may be associated with less positive preferences toward one's work and it may be harder to be considered in recruitment processes.

Poor work ability

Another important aspect of KSAs in relation to work is the person's work ability with regard to physical and cognitive abilities (Ployhart & Bliese, 2006). Hence, when evaluating PJ fit, mental and physical work abilities may also have to be considered (see e.g., Oakman & Wells, 2016). Work ability refers to the individuals' ability to continue working in their current job, in regard to the correspondence between physical and mental work demands and the individuals' personal (physical and mental) resources (Ilmarinen, Gould, Järvisalo, & Järvisalo, 2008). Accordingly, poor work ability has been found to be associated with factors such as high physical and mental work demands and poor psychosocial (or physical) work environment, as well as with a high age and low physical capacity (see a review by van den Berg, Elders, de Zwart, & Burdorf, 2009). Failing to meet mental and physical work demands, presumably has effects on overall experienced PE fit, immediately, or takes its toll over time. For example, if a nurse with a bad back was forced to undertake heavy lifting in her daily work, this would aggravate the back problems and thereby increase the misfit. In regard to outcomes of work ability, for instance, McGonagle, Fisher, Barnes-Farrell, and Grosch (2015) found evidence for poor work ability over time being related to absence from work, when controlling for health and age. For older workers, also associations were found with disability leave and pensions (McGonagle et al., 2015).

Thus, there are good reasons to believe that poor work ability can also negatively affect perceived employability; however, this relation is seldom tested. One study which did test this assumption was based on a sample of individuals on long-term sick leave and their re-entry to the labor market (Nilsson & Ekberg, 2013). Work ability was found to be positively related to perceived employability. No study has so far studied if poor work ability is related to being locked-in, but it has been found that good work ability was associated with the enjoyment of staying in one's work (Tuomi, Huuhtanen, Nykyri, & Ilmarinen, 2001) among older workers.

In most studies, work ability reflects an individual's overall working ability, but in some studies the main focus is on either physical or mental work ability, and thus physical work ability pertains to the balance between physical work demands and resources, while mental work ability reflects mental (psychological) work demands and the psychosocial working conditions

(Leijon et al., 2017). This is the stance taken in the present thesis in which mental and physical work abilities are separated in order to be able to investigate their distinct relation to locked-in positions.

Demographics

It is not only matching factors that may put some individuals at greater risk of ending up in locked-in positions; demographic affiliation and living conditions may also act as vulnerability factors. For example, demographic factors, such as gender, social class, and ethnic group, may influence adolescents' vocational opportunities and their initial career choices (Fouad, 2007). Furthermore, throughout working life, demographic characteristics are also known to influence stereotyping, for example when recruiters and supervisors make staffing choices and assess performance (Aigner & Cain, 1977; Arai et al., 2016). All these factors may influence one's opportunities to change jobs. Thus, demographics often interrelate with working conditions and circumstances that may either facilitate or prevent career control on the labor market. Hence, it may be possible that there are certain demographical groups that have a bigger risk of ending up in locked-in positions than other groups. In this regard, the present thesis will focus on gender, socioeconomic position, and age. Furthermore, this thesis will also pay attention to the living situation in terms of where one lives, and the family situation.

Gender

There are generally different expectations put on women and men in working life. This shows early on in children commonly holding sex-stereotypical views on what vocations are suitable work for the different sexes, which later also affects vocational choices (Fouad, 2007; Miller & Hayward, 2006). This means that men and women tend to end up in different vocations, in different working sectors with different working conditions facing different labor market opportunities (OECD, 2014; Sverke, Falkenberg, Kecklund, Magnusson Hanson, & Lindfors, 2016). For example, in Sweden, the labor market is highly gendered, with more women working in the care-giving sector and more men in the industrial and technology sectors (Statistics Sweden, 2010). In addition to the gender-segmented labor market, men and women typically have different roles/obligations in relation to their families and children, which may put restrictions on their possibilities in working life. Thus, it is possible that men and women are not equally likely to end up in locked-in positions.

There is generally a lack of studies directly targeting demographics as determinants of employability or workplace non-preference. However, with regard to workplace non-preference, Aronsson et al. (2000) found no gender differences. For employability, Mäkikangas, De Cuyper, Mauno, and Kinnunen (2013) found that employees could be categorized into patterns in respect to their employability level over time, and in the group with relatively stable high employability (the most fortunate group) men were overrepresented. This finding is in line with the majority of studies that have controlled for gender in their analysis, supporting the notion that men have higher employability than women (De Cuyper, Bernhard-Oettel, Berntson, De Witte, & Alarco, 2008; Mäkikangas et al., 2013; Vanhercke et al., 2015). Thus, one would assume that women would more often be locked-in; however, in a study by Fahlén et al. (2009) men were found to be more often locked-in than women. One potential reason discussed by the researchers was that the study targeted a female dominated workplace (Fahlén et al., 2009). To sum up, the role of gender in relation to being locked-in is unclear.

Socioeconomic position

Socioeconomic position (e.g., occupational class) is suggested to be associated with differences in overall working conditions and different levels of control at work (Geyer, Hemstrom, Peter, & Vagero, 2006), and thus it may also influence career control and have an impact on being locked-in. Commonly it is measured by either educational level, income, or occupational position, where the latter is often categorized as blue-collar (manual) versus white-collar (non-manual) workers. However, this division has been criticized for being outdated and not really reflecting the working status and conditions of today (see e.g., Grusky & Sorensen, 1998; Weeden & Grusky, 2005). For instance, skilled manual workers could earn more money than individuals in employments requiring a college degree (Mayrhofer, Meyer, & Steyrer, 2007). As a consequence, this thesis distinguishes between two categories of manual workers—skilled and unskilled—and two categories of non-manual workers—assistants and medium/higher non-manual workers.

Empirical evidence from the field is scarce and mostly based on the categorization of manual versus non-manual work. Some studies have found that non-manual workers perceive themselves as having higher employability compared to manual workers (Berntson et al., 2006; De Cuyper et al., 2009; Furåker et al., 2014). Interestingly, non-manual workers compared to manual workers had higher risk for being in a non-preferred workplace and/or being locked-in (Furåker, 2010). Also, in relation to education, earlier research has indicated that higher education level is associated with higher employability (Berntson et al., 2010; Berntson et al., 2006; Wittekind, Raeder, & Grote, 2010).

Age

During a lifetime and a career, individuals' values and priorities, as well as their career goals will undergo modifications. As one grows older, the outlook for attaining certain career goals may be affected (Wrosch, Scheier, Carver, et al., 2003) by for instance, decline of physical work capacity (Ilmarinen, 2001) and cognitive abilities (Salthouse, 2012). At the same time, there are ongoing processes that may counterbalance such decline, like accumulated wisdom and knowledge acquired during life (Ilmarinen, 2001). This may be the reason why mental work resources have a more ambiguous relation to aging (Ilmarinen, 2001; Monteiro, Ilmarinen, & Correa, 2006), and task performance is not related to age (Ng & Feldman, 2008). However, age stereotypes and discrimination may put limits on reachable career goals (Ng & Feldman, 2012). Thus, as an effect, employability may decrease with older age, which is in accordance with studies indicating that older employees have lower employability perceptions (Berntson et al., 2006; Wittekind et al., 2010). As a matter of fact, De Coen (2012) showed that age and employability had a curvilinear relationship, so that employability increased until middle age, and then declined again. However, older workers, generally, have more favorable job attitudes and display more favorable behaviors toward their organizations compared to younger workers (for reviews, see meta-analyses by Ng & Feldman, 2008; Ng & Feldman, 2010). One reason may be that many older employees have gained organizational benefits due to long tenure (e.g., public employees), and they will lose these if they leave their organization. For instance, older workers have been found to feel stronger preferences toward their workplace (Aronsson et al., 2000), whereas the relation between age and being locked-in is less clear according to a study by Furåker (2010).

Family situation

Also, the family situation, in the sense of being married/cohabitant and/or having children, is another factor that may have an effect on an individual's possibilities to react to career opportunities as well as what opportunities are offered to the individual (Mayrhofer et al., 2007). Also starting a family may very well change the individual's priorities.

Having a family has some positive effects on career-related outcomes, for instance being married has been found to relate positively to career satisfaction (Ng, Eby, Sorensen, & Feldman, 2005) and family support has been found to be associated with job satisfaction (Shockley & Singla, 2011). However, it is possible that having responsibilities for a family with smaller children may make a person want to devote more time and energy to the children and less on career development, and hence, stand back for a few years. Such a situation is traditionally more common for women. A possible

drawback of such a decision may be that the individual, as a consequence of not developing in the work area, has difficulties to later on fulfilling their future career goals, and hence is at risk of being or becoming locked-in.

Empirical evidence is scarce, but some studies have included family factors as control variables in their analysis. One study found that being married (cohabitant) was negative for employability, while several others indicated that being married (cohabitant) does not play any significant role in one's perceived employability (De Cuyper et al., 2009; De Cuyper, Mauno, Kinnunen, & Mäkikangas, 2011; Furåker et al., 2014). Furthermore, one study found that having children was not associated with one's perceived employability (Furåker et al., 2014). All of these studies only tested the ability part of the locked-in conceptualization.

Residential region

Labor market fluctuations at the international and national levels have implications for employability, but also the conditions of the local labor market matter since they influence one's confidence in being able to find another job. This is because individuals tend to be more aware of job opportunities locally (Green, Shuttleworth, & Lavery, 2005) and commonly are reluctant to switch to a new job, which means they would have to move from their residential region (Törnroos et al., 2017; van Ham et al., 2016). In the metropolitan areas, compared to less densely populated areas, the labor market is generally more dynamic, with a larger range of jobs and lower unemployment, which gives greater opportunities to change jobs (Berntson et al., 2006; Kirschenbaum & Mano-Negrin, 1999). Support for such an association between living in metropolitan areas and higher perceived employability have been found in several studies (Berntson et al., 2006; Furåker et al., 2014; McGuinness & Wooden, 2009). Hence, it is reasonable that the risk for becoming locked-in should be smaller in metropolitan areas.

Psychological capital

Individuals may be differently equipped to perform continuous monitoring and make comparisons between themselves and their environment (suggested by the model brought forward in relation to Figure 2). In addition, individuals may differ in their response to a perceived misfit. In extreme cases, they may either promptly take control, invest energy to improve the PE fit again, and persist in their undertakings, or, at the other extreme, they may retreat at the smallest setback, thinking that there is nothing really, they can do. An interesting personal disposition in this regard is psychological capital, which reflects how individuals cope with life and handle obstacles in general

(Luthans, Avolio, Avey, & Norman, 2007). The psychological capital includes the following four facets: general self-efficacy (Chen, Gully, & Eden, 2001), resilience (Masten, 2001), optimism (Scheier & Carver, 1985), and hope (Snyder, 2002). These facets have been found to relate to constructive career behavior, such as career exploration and proactive career behavior (Hirschi, 2014; Hirschi et al., 2015). Facets of the psychological capital have also been found to be associated with perceived employability (Hinton, 2012; Kirves, Kinnunen, & De Cuyper, 2014; Ngo, Liu, & Cheung, 2017) and with positive career outcomes, such as job satisfaction (Hirschi, 2014; Reichard, Avey, Lopez, & Dollwet, 2013; Youssef & Luthans, 2007). Therefore, as the psychological capital has a facilitating effect on individuals' careers, it is likely that it can also protect individuals from ending up in locked-in situations. However, as being locked-in is an adverse career outcome, this thesis will target another closely related concept of the psychological capital—helplessness—which in the realm of psychological capital could be understood as a psychological deficit.

Helplessness and being locked-in

In the cognitive activation theory of stress (CATS), Ursin and Eriksen (2004), put forward the notion that individuals have general beliefs/expectancies concerning their own ability to cope (or not) successfully with aversive situations in their lives. The outcome expectancy of a coping attempt (response) to a certain situation could be either positive (coping)— i.e., individuals believe they can productively manage/cope with adversities—or negative (hopelessness)—i.e., individuals think that any coping attempt will only worsen the situation. A final possibility is that individuals do not expect to be able to impact the outcome of an event/situation with any available response, or coping strategy, targeting the stressor (helplessness) (Ursin & Eriksen, 2010). Such outcome expectancies are, according to CATS, general tendencies when facing different situations (Ursin & Eriksen, 2004).

Thus, high helplessness, according to the CATS, reflects a general perception that one has low control over life, and cannot influence one's own life or change it in the way one would want to (Odeen et al., 2013; Ursin & Eriksen, 2004). Helplessness is therefore closely coupled to passivity (Abramson, Seligman, & Teasdale, 1978; Henkel, Bussfeld, Moller, & Hegerl, 2002). In early research on helplessness, the standpoint was that helplessness could be learned. This was later supported by experiments showing that when exposed to adverse situations in which an individual cannot influence the situation through adequate behavior/reactions, the individual finally gives up trying and hence becomes helpless (Maier & Seligman, 1976; Overmier & Seligman, 1967). In line with this, it is assumed that helplessness is mainly formed by aversive early life experiences (Drew, 1990). However, helplessness can

possibly also be influenced by circumstances throughout life, since high helplessness is believed to build vicious cycles causing a future increase in helplessness (Kristenson, Eriksen, Sluiter, Starke, & Ursin, 2004).

It is likely that a person with high helplessness is at greater risk than others of ending up in a locked-in workplace situation, since individuals high in helplessness would do little or nothing at all to actively achieve a good PE fit. This could be a problem even for those starting in a job with a good PE fit, as organizations of today frequently reorganize (Caldwell, Herold, & Fedor, 2004) and individuals develop (see Figure 2). Hence, the overall match may turn into a less beneficial one over time if the individuals remain passive, and do nothing to influence their current work conditions and career. In addition, it is conceivable that individuals with high helplessness do not actively develop their employability either, which may additionally increase the risk for becoming locked-in. This has not been studied in detail, but empirical findings on psychological capital and career outcomes lend support to such a possibility (e.g., Hirschi et al., 2015; Ngo et al., 2017).

Since the link between being locked-in and helplessness has not been studied, another important question is whether career setbacks, such as being locked-in, may also lead to the development of (more) helplessness. Here, the hypothesis is that being locked-in means facing a negative career situation where one does not have (or believes one does not have) the power to act and thus, feelings of helplessness are developed over time (King, 2004). This may be explained by the scarring effect, meaning that having encountered a harmful life event (such as being locked-in) leaves a persistent scar (helplessness) that can continue to affect the individual even if perhaps the individual's situation changes again later on (Virtanen, Hammarstrom, & Janlert, 2016).

In sum, it is possible that these two mechanisms (helplessness increasing likelihood of becoming locked-in, and vice versa) occur concurrently, building vicious cycles. The present thesis will investigate whether helplessness and being locked-in are associated with each other; that is, whether locked-in individuals also tend to have high helplessness levels. Furthermore, this thesis will investigate which one is the cause of the other, i.e., whether helplessness will affect the likelihood of being locked-in or the other way around. Thus, helplessness may be only a determinant of being locked in, or a determinant as well as an outcome.

Being locked-in, and well-being and health

Well-being and health are elusive, multifaceted concepts and have accordingly, in the literature, been defined in several ways (Ryan & Deci, 2001). For instance, the World Health Organization (WHO) has defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO Media centre, 2016). Thus, well-being and health according to this definition are intertwined conceptually and both include physical and mental aspects.

This thesis focuses on perceived general health and mental health also referred to as well-being. The choice to include perceived general health was made since self-rated health (referred to as subjective health in Study III) reflects a valid overall assessment of health (Mavaddat et al., 2011) and has been proven to be strongly associated with both morbidity and mortality (Bailis, Segall, & Chipperfield, 2003; Lundberg & Manderbacka, 1996), and thus is highly influential on people’s lives. Furthermore, self-rated health has been indicated to relate more substantially to physical functioning than to mental health (emotional well-being) and social functioning (Mavaddat et al., 2011).

In the literature—in regard to well-being and from a psychological viewpoint—there are two different general perspectives of well-being: a hedonic view (i.e., pleasure and happiness) and an eudaimonic view (i.e., personal growth) (Diener, Pressman, Hunter, & Delgado-Gill, 2017; Ryan & Deci, 2001). The influential term ‘subjective well-being’ (SWB) taps into the hedonic view (Diener, 2013; Diener, Suh, Lucas, & Smith, 1999), by its focus on life satisfaction and affect, in regard to both the presence of positive experiences and the absence of negative experiences. For instance, the component of negative affect consists of negative momentary emotions (e.g., sadness, anger, and worries) and negative longer-lasting moods (e.g., depressions) (Diener et al., 2017). Some proportions of SWB are believed to be influenced by heritability, but the influence of life events, such as becoming unemployed, is also substantial (Centers for Disease Control and Prevention [CDC], n.d.; Lucas, Clark, Georgellis, & Diener, 2004).

A closely related concept to negative affect and well-being is mental health. Measures of negative affect and mental health have shown substantial overlap

(Diener et al., 2017). Also, some scholars refer to mental health as emotional well-being, (see e.g., Mavaddat et al., 2011). The present thesis (by its concern with depressive symptoms) focuses on mental health problems and experiences in line with the negative affect component of SWB. This focus was adopted because mental health problems have become widespread in today's working life, and are common reasons for sick leave and work disability (Wittchen et al., 2011). Throughout this thesis, the term (poor) well-being is used when referring to the mood/emotions of foremost negative affect and to (poor) mental health, such as depressive symptoms.

To explain a potential link between being locked-in, and poor well-being and health, the control theory in regard to PE misfit is useful. When a goal (referred to as a reference value in Carver & Scheier's control theory) is not realistic, continuing to pursue and struggle toward such a goal would mean resource depletions (e.g., in the form of energy losses) (Wrosch, Scheier, Miller, Schulz, & Carver, 2003). In those cases, an adequate self-regulation response could be to alter or abandon the goal altogether (Wrosch, Scheier, Carver, et al., 2003). However, according to Wrosch, Scheier, Carver, et al. (2003), there is a significant difference between completely discarding one's commitment to a valued goal and only decreasing (or giving up) one's efforts toward the goal. When individuals encounter (perceived) unsolvable obstacles in attaining their goal, a proper response would be to both reduce their efforts as well as "relinquish" commitment (disengage from the goal), as this approach would reduce the risk of negative impacts on well-being (Wrosch, Scheier, Carver, et al., 2003). On the other hand, remaining mentally and emotionally committed to an unattainable goal when at the same time withdrawing further efforts should have apparent adverse consequences on well-being (Carver & Scheier, 1990).

Being locked-in should reflect this kind of adverse situation, because even though it may feel unattainable to find another employment with another employer, it would be hard to completely relinquish such a goal commitment, since work for many people is central to their identity (Baumeister & Muraven, 1996; Fouad & Bynner, 2008; Holm & Hovland, 1999) and takes up a large proportion of their everyday lives. However, one can expect that efforts in trying to reach this goal will be few or will decrease over time, which will reinforce the perceptions of being locked-in at the workplace. What makes it even harder is that the status-quo—staying in the unwanted workplace—is also not beneficial to well-being and health, as this must be a stressful situation in itself, and may also mean losing resources in terms of influence and support (Aronsson et al., 2000). This goes well with explanations given by the COR theory—a stress theory—where the idea is that having resources will help with gaining more resources, but more importantly, lack of resources will put the individual in danger of losing

further resources (Hobfoll et al., 2003). That is, the locked-in individuals have poor employability and run the risk of losing more resources over time. This worsens their well-being and health, which in turn are also considered a resource and potentially needed if one wants to find the extra energy to improve employability or make job changes.

There are only a few cross-sectional studies (Fahlén et al., 2009; Furåker, 2010) on the relationship between being locked-in (measured by the combination of being in a non-preferred workplace and reporting low employability) and well-being and health. Being locked-in was found to be associated with health problems, such as back pain, headaches, and sleeping problems (Furåker, 2010) and long-term absence (Fahlén et al., 2009). Other studies, focusing either on employability or non-preference, also support such links, for example being in a non-preferred workplace has been found to be associated with health problems (Aronsson et al., 2000; Bernhard-Oettel, De Cuyper, Berntson, & Isaksson, 2008), poor psychological health (Aronsson et al., 2000; Muhonen, 2010), and lower life satisfaction (Bernhard-Oettel et al., 2008). With regard to employability, in several studies this has been shown to have a positive longitudinal relation to well-being (Berntson & Marklund, 2007; Kirves, Kinnunen, De Cuyper, et al., 2014; Vanhercke et al., 2015) and good health (Berntson & Marklund, 2007). The findings of associations between employability and exhaustion over time are mixed as employability shows a negative relation to job exhaustion (Kirves, Kinnunen, De Cuyper, et al., 2014) but in another study, it did not show any associations with burnout/exhaustion (De Cuyper, Raeder, Van der Heijden, & Wittekind, 2012).

Based on these theories and empirical findings one can assume that being locked-in affects well-being and health. Furthermore, if the locked-in status changes between being locked-in, being at risk of becoming locked-in, and not being locked-in, such changes should have implications for well-being and health.

Method

The three studies included in this thesis are all based on data collected in the realm of the Swedish Longitudinal Occupational Survey of Health (SLOSH), an approximately representative cohort of the Swedish national working population. However, the three different studies comprised to some extent different waves of the overall data collections, and had different inclusion criteria, and also made use of different measures. A general description of the studies of this thesis is presented in Table 1.

This methodological section is set up as follows: first it describes the study samples, initially on a general level with a description of the SLOSH cohort, followed by a more detailed description for each study. Second, the measures used in the studies are presented.

Table 1. General description of the studies in this thesis

	Study I	Study II	Study III
Research focus	Individual determinants of being locked-in	Helplessness and being locked-in	Being locked-in and well-being and health
Data material	SLOSH	SLOSH	SLOSH
Sample building on	SWES ¹ 2007, 2009, 2011	SWES 2003, 2005	SWES 2003, 2005
Data	Cross-sectional and longitudinal	Longitudinal	Longitudinal
Year	2014 and 2016 ²	2012 and 2016 ²	2010 and 2012
Study population	N = 3633–6449	N = 978	N = 3491
Analytical method	Independent multinomial logistic regression analyses	Cross-lagged structural equation modeling	Repeated Multivariate Analysis of Covariance

¹ Swedish Work Environment Surveys

² The samples from 2016 of Studies I and II differ, as they are derived from entirely different SWES waves

General description of samples

The SLOSH database is maintained by the Stress Research Institute, Stockholm University, and the main purpose of this cohort study is to investigate associations between work organizations, work environment, and health over time (for an in-depth description of SLOSH, see the cohort profile report by Magnusson Hanson et al., 2018). Data has been collected biannually since 2006 by postal questionnaires sent out by Statistics Sweden. The questionnaire data has been linked to administrative register data on, for example, age, gender, marital status, education and occupational position, making the material very comprehensive.

SLOSH is a follow-up of the Swedish Work Environment Surveys (SWES), which in turn is composed of a subsample of participants of the Labor Force Survey (LFS). For the LFS' purpose of collecting national data about working life, Statistics Sweden contacts a representative sample (around 20,000 individuals) of the Swedish population, between 16 and 64 years of age every second year. The data is collected through telephone interviews. Thereafter, the SWES questionnaire is sent out to a subsample of those who are gainfully employed among the LFS sample. These subsamples are used for the SLOSH data collection, and thus SLOSH is approximately representative of the working population of Sweden.

Since SLOSH is a longitudinal cohort study, participants from new SWES samples are added over the years. This means that all participants have been gainfully employed at least once (during the time of the SWES data collection), but they may have changed their employment status; for example, they may have become unemployed, retired, taken parental leave, etc. Therefore, two versions of the SLOSH questionnaire are sent out at each data collection, one for those gainfully employed (working at least 30% of full time) and another for those working fewer hours, or not working at the time of data collection. In this way, SLOSH can keep track of individuals, regardless of their current working status.

For the first wave of SLOSH in 2006, only participants in the SWES 2003 survey were invited. For the next three waves of SLOSH (2008–2012), the samples of SWES 2003 and 2005 were selected for the SLOSH study. For the succeeding two waves of SLOSH (2014–2016), the samples of SWES 2007, 2009, and 2011, were also invited to participate in the SLOSH study. For the years the SLOSH data has been collected, the overall response rate amounts

to 51–65%. For this thesis, the respondents answering the questionnaire for gainfully employed individuals ('worker questionnaire') are of interest, and sample sizes varied from 7325 to 15359.

Sample for Study I

For Study I, data from SLOSH 2014 (T1) was used for cross-sectional analyses, and for longitudinal analyses SLOSH 2016 (T2) was also used. At T1, 9335 individuals answered the 'worker questionnaire' and were obtained from SWES 2007, 2009, and 2011. For the first aim of the study (the study of matching factors as predictors of being locked-in), only employees who had a permanent contract and had not yet turned 65 were included. This restriction was made because 65 represents the traditional age of retirement in Sweden. The sample was further delimited to only include those who had given complete answers to the study variables (N = 6449). Out of these respondents 58% were women, the mean age was 49 (SD 10) years, and 73% were non-manual workers. Next, for the longitudinal analysis, a subset was taken (N = 3898), including those having permanent contracts and full answers to relevant questions at both T1 and T2; comprising an effective longitudinal response rate of 60.4%. Dropout analyses—in regard to the first aim of Study I—comparing dropouts (fulfilling the inclusion criteria for T1, but not for T2) and those in the longitudinal sample indicated that the dropouts differed in the following ways: they reported slightly poorer physical and mental work abilities. Also, a larger proportion of the dropouts were locked-in or at risk of becoming locked-in.

For the second aim of the study (the study of demographic factors as predictors of being locked-in), a subset of the original sample (N = 6449) was taken, limited to those who had given complete answers to all additional relevant, demographic variables at T1 (N = 5984). For the longitudinal analysis, 3633 individuals could be used. These had permanent contracts and answers to all relevant questions at both T1 and T2, comprising an effective longitudinal response rate of 60.7%. Dropout analyses—in regard to the second aim of Study II—comparing dropouts (fulfilling the inclusion criteria for T1, but not for T2) and those in the longitudinal sample indicated that the dropouts differed in the following ways: they were slightly younger, more had no children, and more of them were non-manual workers or assistant non-manual workers. Furthermore, a larger proportion of the dropouts were locked-in or at risk of becoming locked-in.

Sample for Study II

For Study II, data from SLOSH 2012 (T1) was used and for the follow-up SLOSH 2016 (T2). This sample differed from the one used in Study I, as

completely different SWES waves formed the basis for the studies (see Table 1). At T1, there were 7325 individuals who answered the ‘worker questionnaire’. Besides limiting the sample to include only respondents with a permanent contract (at both time points), individuals older than 64 years of age at T2 were excluded. This resulted in 2028 respondents at T1 who had permanent contracts and complete data for the study variables. At T2, four years later, 978 respondents (out of 2028) still had permanent contracts and complete data for all variables and could therefore be used in this study. This resulted in an effective longitudinal response rate of 48.2%.

Of the effective longitudinal sample, 58% were women and the mean age was 50 (SD = 8) years (at T1). The distribution of the education level was the following, 9% maximum nine years of school, 20% upper secondary school < 3 years, 24% upper secondary school at least three years, 15% university < 3 years, and 33% university at least three years. Furthermore, between T1 and T2 (four years’ time frame), 26% had changed jobs and 75% had been involved in reorganizations. Dropout analyses comparing dropouts (fulfilling the inclusion criteria for T1, but not for T2) and those in the longitudinal sample indicated that the dropouts differed in the following ways: more of them were men, and they were slightly younger and had less education. Furthermore, a larger proportion of the dropouts were locked-in (14.9% vs. 6.5%) and reported a slightly higher degree of helplessness.

Sample for Study III

The data used in Study III was derived from SLOSH 2010 (T1) and for the follow-up SLOSH 2012 (T2). At T1, 7903² individuals answered the ‘worker questionnaire’; of these, 5615 respondents had permanent contracts with their employer and complete data for all variables included in the study. For the purpose of Study III, 3491 individuals could be used (the effective longitudinal sample) as they had permanent contracts at both T1 and T2 and complete data for all the variables at both time points. The effective longitudinal response rate thus was 62.2%.

Of the effective longitudinal sample, 57% were women, the mean age (at T1) was 49 (SD 9) years, in the range from 24 to 71 years. Of the sample, 72% were non-manual workers and 28% were manual workers. Dropout analyses between the dropouts (fulfilling the inclusion criteria for T1, but not for T2) and those in the longitudinal sample, showed that the only statistical significant differences (in regard to all study variables) were that the dropouts were slightly younger (mean one year), a larger proportion of them were

² A total of 1229 extra individuals living in urban areas were invited from SWES 2007 to take part in SLOSH 2010, but not in SLOSH 2012, and thus are not part of Study III.

manual workers (35% vs. 28%), and they reported a very small degree of lower self-rated health (0.05 steps on a scale from 1 to 5).

Measures

All measures used in the three studies are presented in Table 2. Some of them were obtained from questionnaires and some from register data, which is indicated.

Table 2. Overview of used measures

Variable	Study^a	Reference	Response alternatives	(Example) item
Perceived employability	I, II, III	Statistics Sweden (2004)	1 (very easy) to 4 (very hard); 5 (don't know)	How easy would it be for you to get another similar job without having to change residence?
Workplace non-preference	I, II, III	modified version (Magnusson Hanson et al., 2018) of Aronsson et al. (2000)	1 = yes, 2 = no, but I'm satisfied right now, 3 = no, I'm dissatisfied with the company/workplace	Is the company/workplace where you work today the place you wish to work at in the future?
<i>Determinants</i>				
Physical work ability	I	modified item from WAI (see e.g., Ilmarinen, Tuomi, & Seitsamo, 2005)	1 = very good to 5 = very poor	How would you rate your work ability concerning physical demands?

Table 2 (cont'd)

Variable	Study^a	Reference	Response alternatives	(Example) item
Mental work ability	I	modified item from WAI (see e.g., Ilmarinen et al., 2005)	1 = very good to 5 = very poor	How would you rate your work ability concerning mental demands?
Knowledge/skills fit	I	(Statistics Sweden, 1997)	1 = very overqualified, 2 = overqualified in some respects, 3 = just qualified enough, 4 = would need some additional skills, 5 = would need many additional skills	Comparing your skills and knowledge with the job you do, do you think you are...
Gender	I, II, III	register data	1 = male, 2 = female	–
Age	I, II, III	register data	in years	–

Table 2 (cont'd)

Variable	Study^a	Reference	Response alternatives	(Example) item
Social class ^b / Socioeconomic position	I, III	Swedish socioeconomic classification: Statistics Sweden (1984)	1 = unskilled manual workers, 2 = skilled manual workers, 3 = assistant non-manual workers, 4 = intermediate- and higher non- manual workers	–
Place of residence	I	register data	1 = urban areas, 2 = semi-urban areas, 3 = sparsely populated areas	–
Marital status	I	–	0 = single, 1 = married/cohabitant	–
Parental status	I	–	0 = no, 1 = yes	Do you have any children living at home? Include children living with you at least half of the time.

Table 2 (cont'd)

Variable	Study^a	Reference	Response alternatives	(Example) item
Helplessness	II	TOMCATS; Odeen et al. (2013)	1 (strongly disagree) to 4 (strongly agree)	All my attempts at changing my life are meaningless.
<i>Outcomes</i>				
Self-rated health ^c	III	see e.g., Bailis et al. (2003)	1 (very good) to 5 (very poor)	How would you rate your general state of health?
Depressive symptoms	III	Magnusson Hanson et al. (2014)	1 (not at all) to 5 (very much)	How much during the last week have you been troubled by worrying too much?

Table 2 (cont'd)

Variable	Study ^a	Reference	Response alternatives	(Example) item
<i>Other control variables</i>				
Education	<i>II</i>	register data	1 = max 9 years of school, 2 = upper secondary school < 3 years, 3 = upper secondary school \geq 3 years, 4 = university < 3 years, 5 = university \geq 3 years	–
Job change ^d	<i>II</i>	–	0 = no, 1 = yes	The following questions apply to your place(s) of work in the past two years: Have you changed job?
Reorganization ^d	<i>II</i>	–	0 = no, 1 = yes	The following questions apply to your place(s) of work in the past two years: Has a reorganization taken place at your workplace?

Table 2 (cont'd)

Variable	Study^a	Reference	Response alternatives	(Example) item
Occupational preference ^e	<i>III</i>	Modified version (Magnusson Hanson et al., 2018) of Aronsson and Göransson (1999)	1 = yes, 2 = no, but I'm satisfied right now, 3 = no, I'm dissatisfied with the profession	Is the profession you have today the one you wish to have in the future?

Note

a = Study numbers in *italic* indicate that the variable was treated as a control variable

b = Study III: Dichotomized into manual (blue-collar) workers and non-manual (white-collar) workers

c = Referred to as subjective health in Study III. Reversed, so higher values represent better health

d = Measured both at 2014 and 2016. A combined variable was created: individuals who answered yes at least once (1 = yes), individuals who answered no both times (0 = no); otherwise individual excluded

e = Dichotomized: Answer alternatives 1 and 2 combined into 0, and answer alternative 3 into 1

Categorization and recoding

Some data preparations were performed to better suit the purposes of the studies. Firstly, since being locked-in, in this thesis, is conceptualized as a combination of non-preference for one’s workplace and perceptions of low employability, a variable for locked-in status (called locked-in-related status in Study III) was created. This new variable comprised a combination of the two variables: workplace (non-)preference and employability. The latter was first dichotomized into low and high employability after the ‘don’t know’ alternative had been removed. This resulted in six possible combinations, from which three different locked-in statuses could be interpreted (not locked-in, at risk of becoming locked-in, and being locked-in). Table 3 shows all possible combinations, and which of these combinations make up the three locked-in statuses. In Studies I and III, all three categories/statuses were studied, whereas in Study II, the individuals who chose alternative 2 on the workplace non-preference measure, which includes the risk category, were excluded.

Table 3. Workplace locked-in status operationalization (the new values of the created variable locked-in status in brackets)

Workplace non-preference	Perceived Employability	
	Low	High
1 = Preferred job	Not locked-in (1)	Not locked-in (1)
2 = Non-preferred workplace, but OK for now	Risk of becoming locked-in (2)	Not locked-in (1)
3 = Non-preferred workplace	Locked-in (3)	Not locked-in (1)

For Study I, some measures were recoded to be more suitable for data analysis. For knowledge/skills fit, the five answer alternatives (1 = very overqualified, 2 = overqualified in some respects, 3 = just qualified enough, 4 = would need some additional skills, 5 = would need many additional skills) were recoded into three categories: 1 = overqualified (1–2), 2 = just qualified enough (3), and 3 = underqualified (4–5), where the middle alternative served as the reference category. Furthermore, for both physical and mental work ability scales, the five answer alternatives (1 = very good to 5 = very poor) were reduced to only three, collapsing the two lowest and the two highest, respectively.

With regard to the demographics in Study I, age was divided into three categories (1 = 34 years or younger, 2 = 35–49 years, 3 = 50 years or older),

representing a commonly used division in career research, where the years between 35–49 roughly represent being in the ‘mid-career’ (De Vos, Forrier, Van der Heijden, & De Cuyper, 2017; van der Heijden, 2001).

The measure for socioeconomic position (Swedish socioeconomic classification) combines information about the vocation (as reported in the questionnaire) and of the length of education that are usually required for that vocation (Statistics Sweden, 1984). The following categorization was used in Study I: a) unskilled manual workers, b) skilled manual workers, c) assistant non-manual workers, and d) intermediate- and higher non-manual workers.

The obtained register data for place of residence was classified into three categories (1 = urban areas, 2 = semi-urban areas, and 3 = sparsely populated areas). The category ‘urban areas’ includes the three largest cities in Sweden (Stockholm, Gothenburg, and Malmö), whereas the ‘semi-urban areas’ category includes municipalities with more than 90,000 inhabitants.

For Study II and Study III, some minor recoding was done for control variables. These are depicted as notes in Table 2.

Summary of studies

This thesis comprises three empirical studies with a focus on the locked-in phenomenon. In this section, the three studies are presented one by one, giving information about the background and aim, analysis strategy, and finally the main findings and conclusions.

Study I – Who gets stuck in their workplaces? The role of matching factors, between individual and job, and demographics in predicting being locked-in

Background and aim

Knowledge about what puts a person in locked-in positions (being locked-in (LI) or being at risk of becoming locked-in (RLI)) is largely missing. Factors that pertain to the match between the demands of the work and the abilities of the individual (matching factors) relate to the individual's overall experienced PE fit with the workplace/organization, and have implications for attitudes towards the job (Jansen & Kristof-Brown, 2006). Therefore, mismatches between particular demands and abilities may influence overall preferences toward the workplace/organization, and may thus also be associated with and/or predict locked-in positions. Study I investigated matching factors in relation to knowledge/skills, in terms of over- and under-qualification, and also investigated work abilities in the sense of lacking physical or mental work abilities. These factors were chosen because they, besides their potential association with workplace non-preference, may also be associated negatively with employability (since the person may have felt forced to accept a non-preferred job), or may adversely affect employability over time (as staying in these particular situations of mismatch may make the person less sought-after in the labor market).

Furthermore, demographic factors may have implications for which sector/vocation individuals work in, something which is related to both working conditions and labor market opportunities. Also, demographics may affect how a person is treated in the workplace and what opportunities are

provided for them, and thus, as a consequence there may be implications for career possibilities. Hence, demographic factors may matter in relation to locked-in positions. In Study I, demographics were studied in the form of gender, age, socioeconomic position, residential region, marital status, and parental status.

Thus, the aim of Study I was twofold; to investigate whether 1) matching factors (concerning fit between the individual and work situation in terms of knowledge/skills and perceived work ability), and 2) demographic factors (gender, age, socioeconomic position, residential region, or family situation) were related to locked-in status, both cross-sectionally and two years later when controlling for locked-in status at baseline (T1). The purpose of the longitudinal analyses—since they controlled for baseline locked-in status—was to study whether these factors were related to changes in locked-in status over time.

Analysis strategy

Data were analyzed cross-sectionally (T1) and longitudinally (T1 and T2). In regard to testing cross-sectional associations between the possible determinants and locked-in status, two separate independent multinomial logistic regression analyses were performed, where the first included matching factors (knowledge/skills fit and work ability), and the second included demographics (gender, age, socioeconomic position, place of residence, marital status, and parental status). All variables were measured at T1 and the reference state used in both analyses was the locked-in status ‘not being locked-in’.

In order to test longitudinal relations between the possible determinants and locked-in status, two separate multinomial logistic regression analyses were performed, and once again with matching factors separately from demographics, but with the outcome variable locked-in status measured at T2. The baseline value of locked-in status was controlled for by the inclusion of locked-in status measured at T1 as an independent variable.

Main findings and conclusions

The results of the analyses including matching factors showed that the match between work demands and abilities was important for avoiding locked-in positions. Regarding the match between employees’ knowledge/skills and their work tasks, being overqualified increased the odds ratios for being in LI/RLI positions cross-sectionally and for becoming LI longitudinally compared to individuals with a good match. In regard to being underqualified, only small increased odds ratios for RLI were found, cross-sectionally.

Considering work abilities, poor mental work ability increased the odds ratios for being in LI/RLI positions cross-sectionally and for becoming LI/RLI over time. Hence, mental work ability is of significance in regard to locked-in positions. Poor physical work ability cross-sectionally increased the odds ratios for being RLI, and also increased the odds ratios for becoming LI over time. This may indicate that poor physical work ability may evolve into LI over time (possibly through RLI).

Next, the results of the analyses including factors pertaining to demographics were mixed. Several factors showed no or small effect on odds for being/becoming LI/RLI. For example, age and parental status had no effect, while gender and marital status had one effect each (men had greater risk for ending up in an LI position over time and singles had small heightened odds for RLI cross-sectionally).

Regarding socioeconomic position, assistant non-manual workers had higher odds ratios for being in/getting into LI/RLI positions compared to medium/higher non-manual workers, both cross-sectionally and longitudinally. Unskilled manual workers also had higher odds ratios for being in LI/RLI positions, cross-sectionally, whereas skilled manual workers did not. This indicates that workers in relatively lower status jobs, both in manual and non-manual categories, are at greater risk for being or becoming locked-in compared to workers in their respective category.

Finally, in regard to place of residence, individuals who lived in an urban area had lower odds ratios for RLI but not for LI, both cross-sectionally and longitudinally, compared to individuals living in sparsely populated areas.

Study II – Stuck in the job: Does helplessness precede being locked-in at the workplace or vice versa? An analysis of cross-lagged effects

Background and aim

Individuals with higher levels of psychological capital (i.e., general self-efficacy, resilience, optimism, and hope) have a more optimistic view of life and better ability to cope with adversity. Furthermore, empirical evidence indicates that the psychological capital is beneficial for the individuals' careers, as it has been found to both increase proactive career behaviors and bring about positive career outcomes (e.g., job satisfaction and employability)

(Hirschi et al., 2015; Kirves, Kinnunen, & De Cuyper, 2014). Therefore, it is likely that psychological capital can also safeguard individuals against becoming locked-in. In the realm of the psychological capital, helplessness may be viewed as a psychological deficit. Helpless individuals have a negative view of their possibilities to impact their own lives, and therefore tend to be passive. Therefore, it is very likely that individuals high in helplessness will also stay passive in relation to their careers, and as a consequence are at higher risk of becoming locked-in at their workplaces.

However also, an opposite direction of the relationship is possible because adverse situations (such as being locked-in) may scar an individual. In accordance with the scarring hypothesis, this may have long-term consequences for the individual, such as changing the individual's view on life in general (King, 2004; Virtanen et al., 2016), and also a person may learn helplessness (Abramson et al., 1978). Thus, being locked-in may increase helplessness perceptions, and hence there may be a reciprocal relationship.

The aim of Study II was to investigate whether helplessness and being locked-in at the workplace are associated, and how they relate to each other over time. Three hypotheses were formulated:

Hypothesis 1. Helplessness and being locked-in have positive cross-sectional associations.

Hypothesis 2. Helplessness has a positive lagged effect on being locked-in.

Hypothesis 3. There is a reciprocal relationship over time between helplessness and being locked-in.

Analysis strategy

In Study II, a cross-lagged panel data design was analyzed with the Structural Equation Modeling (SEM) technique in order to be able to detect possible lagged and reciprocal effects between the two variables, in this case helplessness and being locked-in. Locked-in status was measured as an observed variable with two possible states (being locked-in and not being locked-in) and helplessness was measured as a latent variable with three items.

To ensure that depicted mean level changes in the helplessness construct over time were due to true changes and not to changes in the measurement model of the construct, four specified measurement models were tested and compared, 1) Configural invariance (the loadings, intercepts, and item variances free to vary across time), 2) Metric invariance (the loadings strained to be equal across time), 3) Strong invariance (the intercepts fixed equal across

time), and 4) Strict (Full) invariance model (the item variances fixed equal across time). Longitudinal factorial invariance could be assumed based on two criteria/recommendations: firstly, the model fit did not significantly decrease in the constrained models, and secondly, the increases in the Comparative Fit Index (ΔCFI) were all smaller than 0.01 (Cheung & Rensvold, 2002).

Thereafter, the hypothesized relationships were tested, first cross-sectionally and then, longitudinally. In regard to cross-sectional relations, two separate bivariate correlation analyses were performed, examining associations between helplessness and being locked-in, both at T1 and T2. Next, the temporal relationships between helplessness and being locked-in were tested in a sequence of three competing cross-lagged SEM models, using Mplus 7.31 (Muthén & Muthén, 1998–2012) with the WLSMV (Weighted Least Squares Means and Variance adjusted) estimator. First, the stability model (Model 1) was specified, with auto-regressions within each variable across time, concurrently, allowing for the two variables to correlate cross-sectionally at T1 and T2. In Model 2, a lagged path from helplessness at T1 to locked-in status at T2 was added. Finally, reciprocal relationships were tested in Model 3 by adding a lagged path from locked-in status at T1 to helplessness at T2. The conclusion on which model had the best fit to the data was based on several criteria: absolute fit indices (i.e., the Root Mean Square Error of Approximation (RMSEA)) and incremental fit indices (i.e., the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI)) and finally on comparisons of competing nested models.

All three models were controlled for gender, age, and education level, and also for the occurrences of reorganizations and job changes in between T1 and T2.

Main findings and conclusions

Results from the two separate bivariate correlation analyses indicated that helplessness and being locked-in had a cross-sectional relationship. In regard to relationships over time, the SEM analyses provided the strongest support for Model 3, implying that there was a reciprocal relationship between the two focal variables. This means that there was a significant lagged path from helplessness at T1 to locked-in status at T2, and also that there was a smaller, but significant, lagged path from locked-in status at T1 to helplessness at T2. In other words, high helplessness increased the risk for being in a locked-in position four years later, and being locked-in at T1 also slightly increased the risk for reporting more feelings of helplessness four years later. The control variables (gender, age, education level, reorganizations, and job changes) did not significantly explain any of the focal variables in the study.

In sum, the results from Study II suggest that (high) helplessness may spread to more specific situations, like being locked-in. Such effects may be due to a passive attitude towards life in general and perhaps towards the career in particular. But also, to a lesser extent, being locked-in at one point in time may leave a scar, impacting helplessness levels several years later, and thus may have more far-reaching consequences. These findings lend further support to ideas of the beneficial effects of high psychological capital on career.

Study III – Stuck in a job: being “locked-in” or at risk of becoming locked-in at the workplace and well-being over time

Background and aim

According to the control theory (Carver & Scheier, 1982), being in control means that whenever there is a discrepancy between one’s current status and the desired one, one feels that one could bridge the gap. Being locked-in means having low control over where to work since employability levels are low and thus the inconsistency between one’s desired work and the current one may be felt as insurmountable. In addition, working in a non-preferred job means having to cope with work one no longer wants (to do), and may thus lead to loss of resources, in accordance with the COR theory (Hobfoll et al., 2003). Low control and resource losses are linked to impaired well-being and health. Therefore, having low control over one’s career, such as being locked-in, should have negative implications for well-being and health.

The aim of Study III was to investigate how locked-in status (being locked-in, at risk of becoming locked-in, and not being locked-in) relates to well-being and health over time. The study also considered how changes in locked-in status relate to alterations in well-being and health. It should be noted that in Study III, well-being was used as an umbrella term for both subjective health (i.e., self-rated health) and depressive symptoms. To be consistent with the terminology of Study III, the hypotheses and the main findings will as long as possible keep this terminology. An exception is the term ‘subjective health’ that will be called ‘self-rated health’ from here on, to be more aligned with the existing literature.

In the study, six hypotheses were raised (the first three [1–3] without the risk category, and the last three [4–6] including the risk category):

Hypothesis 1: Over time, individuals who are locked-in (at both time points) will report lower well-being than non-locked-in individuals.

Hypothesis 2: Changing status from non-locked-in to locked-in will lead to impaired well-being.

Hypothesis 3: Changing status from locked-in to non-locked-in will lead to improved well-being.

Hypothesis 4: Individuals who are at risk of becoming locked-in at both time points will report a) better well-being compared to individuals who are locked-in over time, but b) lower well-being compared to those who are non-locked-in over time.

Hypothesis 5: A change in status (a) from non-locked-in to at risk of becoming locked-in, or (b) from at risk of becoming locked-in to locked-in will lead to impaired well-being.

Hypothesis 6: A change in status (a) from locked-in to at risk of becoming locked-in, or (b) from at risk of becoming locked-in to non-locked-in will lead to improved well-being.

Analysis strategy

In order to test the hypotheses, the individuals were first categorized into groups (patterns) depending on how their locked-in status (called locked-in-related status in this study) changed (or did not change) between the two study points at times T1 and T2. There were nine possible patterns (groups), including three stable patterns (remaining in the same status) and six patterns of changing status.

Secondly, a repeated Multivariate Analysis of Covariance (MANCOVA) with the nine locked-in-related patterns as the grouping variable and well-being as the outcome (self-rated health and depressive symptoms), was performed, using SPSS. This is a suitable analysis for the present purpose, because a MANCOVA compares distinct groups on several related outcomes, concurrently, as it controls for specified covariates (in this case, gender, age, social class, and occupational preference). Furthermore, the supplement 'repeated' means that for each individual there are several measures for the same variable; in this case the well-being variables were measured at two different time points, and thus development of well-being over time can be analyzed per group.

Main findings and conclusions

The results of the repeated MANCOVA showed that there was a statistically significant multivariate effect of the locked-in-related patterns on well-being. This means that there was a significant difference between the nine patterns with regard to their well-being levels. More important, there were significant interaction effects (time*group) between time and self-rated health and depressive symptoms, respectively. This indicates that the locked-in-related status patterns diverged in their well-being developments over time.

A comparison of the three, stable locked-in-related patterns, showed that those who were 'stable locked-in' had worse well-being compared to those 'at risk of becoming locked-in', who in their turn had worse well-being compared to those 'not being locked-in'. This was the case for self-rated health as well as for depressive symptoms, lending support to both Hypotheses 1 and 4.

For the three patterns that changed to a 'less favorable' locked-in status, and therefore were hypothesized to show a decrease in their well-being, the results were somewhat mixed. First, with regard to the pattern changing from not being locked-in to being locked-in, well-being decreased for both measures, supporting Hypothesis 2. Secondly, for the pattern changing from not being locked-in to at risk of becoming locked-in, no significant change in well-being was found, and thus Hypothesis 5a could not be supported. Third, for the pattern changing from at risk of becoming locked-in to being locked-in, depressive symptoms increased, while no significant decrease in self-rated health could be found. Thus, Hypothesis 5b was partly supported.

Regarding the three patterns which changed to a 'more favorable' locked-in-related status, and therefore were hypothesized to be associated with an improvement in well-being, the results were also somewhat mixed. First, for the pattern changing from being locked-in to not being locked-in, a decrease in depressive symptoms was found, while no significant increase in self-rated health could be depicted. This partly lends support to Hypothesis 3. Second, for the pattern changing from being locked-in to risk of becoming locked-in, a decrease in depressive symptoms was shown, while there was no significant increase in self-rated health. Thus, Hypothesis 6a was partly supported. Finally, with regard to the pattern changing from at risk of becoming locked-in to not being locked-in, a decrease in depressive symptoms as well as an increase in self-rated health were found. Hence, Hypothesis 6b was fully supported.

In summary, the results from Study III indicate that being locked-in has negative implications for well-being and health, and that being at risk of becoming locked-in may be viewed as an intermediate status. Furthermore,

changing status toward locked-in has detrimental effects on well-being and health, while changing toward not locked-in is beneficial for well-being and health. One exception was changing from not locked-in to at risk of locked-in, where no decrease in well-being and health could be detected, which may mean that such a change does not cause anxiety at once. These findings comply well with the mechanisms of goal discrepancies in the control theory and the mechanisms of resource gain/loss spirals in the COR theory.

Discussion

The general aim of the present thesis was to develop knowledge about the phenomenon of being locked-in at the workplace. Four specific research aims were set out. The first aim was to investigate determinants of being locked-in; in particular, demographics and matching factors between the employee and the job were targeted. The second aim was to investigate another potential determinant more closely related to the person, i.e., helplessness, corresponding to feeling helpless in controlling one's life (regarded as a psychological deficit). Related to that, the thesis also studied whether being locked-in would have a reversed effect on helplessness. The third aim was to investigate how locked-in status relates to well-being and health over time, and more specifically, how changes in locked-in status relate to alterations in well-being and health across time. A fourth aim was to develop the conceptualization/operationalization of being locked-in by also studying a category of employees at risk of becoming locked-in. In the following, the findings of the three empirical studies included in this thesis are discussed in more detail. Next, methodological considerations are discussed and thoughts for future research are laid out. The chapter finishes by describing the overall conclusions and the implications of this research.

Determinants of being locked-in

Very few empirical studies have examined who is locked-in, or runs a risk of becoming locked-in and what factors can increase the odds for ending up in such an adverse situation. The general purpose of Study I was to scrutinize two categories of factors that could act as predictors of becoming locked-in. The first category targeted matching (PJ fit) factors in relation to the PE fit framework; factors that are supposed to influence the general fit between the employees and their workplace/organization. The second category consisted of demographic factors that may affect possibilities on the labor market. Analyses in the realm of Study I were concerned with heightened odds for being in locked-in positions cross-sectionally, but also over time. The longitudinal analyses controlled for locked-in status at baseline, which contributes to the understanding of how the examined factors may be associated with a change in locked-in status over time.

Matching factors

The matching factors between the individuals and their jobs, tested in Study I, focused on qualifications (knowledge/skills) and on work ability. First, the results of Study I showed that being overqualified (having more knowledge and skills than required) increased the odds ratios both for being LI and RLI cross-sectionally and for LI over time. This lends support to earlier studies indicating that over-qualification is associated with job dissatisfaction (Johnson & Johnson, 2000a; Lobene et al., 2015), higher turnover intentions (Maynard et al., 2006), and also to a reduced chance of obtaining other employment (Erdogan et al., 2011; Pedulla, 2016).

Furthermore, only a weak association was found between being underqualified (having less knowledge/skills compared to what the work requires) and being RLI, cross-sectionally. Thus, the proposition that under-qualification would increase the odds for being/becoming LI/RLI was largely not supported. This may indicate that individuals who hold job positions for which they are underqualified may not be an unprivileged, unsuccessful group.

Second, poor physical work ability was found to be associated with RLI cross-sectionally, whereas over time the odds ratios for becoming LI were increased. A potential explanation for this finding is that there is a limit to how long an individual can postpone a decision to quit a job that demands more physical capacity than he/she possesses. In addition, there are probably few chances to improve employability while struggling with insufficient physical resources, and hence, the situation may turn into an LI position. In regard to mental work ability, employees with poor mental work ability had increased odds for being in an LI/RLI position and for becoming LI/RLI over time. These results comply with earlier studies that have shown positive associations between work ability and perceived employability (Nilsson & Ekberg, 2013) and enjoyment of staying in one's work (Tuomi et al., 2001). Hence, poor work ability, both physical and mental, seems to matter in relation to being, or becoming, stuck in one's workplaces.

Put together, these findings of Study I support that matching factors at the job level contribute to the overall PE fit, between the employee and the workplace/organization, targeted in present thesis as workplace preference. This is in accordance with the notion that different levels of PE fit have implications for overall PE fit (Jansen & Kristof-Brown, 2006).

Even though one has to keep in mind that the effect sizes were relatively small, the findings on matching factors add to the findings in earlier research, indicating that a combination of high quantitative demands and low control

(Bernhard-Oettel et al., 2018), as well as effort/reward imbalance (Fahlén et al., 2009), have associations with being locked-in. More research is warranted on the process on how these factors influence the locked-in phenomenon. Moreover, future research could also examine whether there might be an opposite direction of such a relationship, i.e., whether being locked-in may affect matching factors. For example, it is possible that an employee who is locked-in will be treated differently by his/her organization, e.g., what tasks he/she will be assigned.

Demographics

Regarding demographics, gender, age, socioeconomic position, residential region, marital status, and parental status were tested. First, considering gender, no difference was found cross-sectionally, but over time men turned out to have slightly higher odds ratios to get into an LI position. This was concordant with the results from the study of Fahlén et al. (2009), showing that men more often were locked-in. As most studies (De Cuyper et al., 2008; Mäkikangas et al., 2013; Vanhercke et al., 2015) have shown that men – in general – have higher employability compared to women, this finding was somewhat surprising.

Second, no association between age and being locked-in could be found, supporting the result of an earlier study (Furåker, 2010). Hence, it seems that locked-in could develop in people of all ages, and thus no age group would be more vulnerable in this sense, regardless of for example, age discrimination (Furåker et al., 2014; Ng & Feldman, 2012).

Third, regarding socioeconomic position, unskilled manual workers and assistant non-manual workers were the two categories most often found in LI and RLI positions. Furthermore, the result of Study I indicated that assistant non-manual workers even had an increased risk of becoming LI/RLI over time. These two groups can be distinguished through having less education and lower status than their counterparts in their respective broader category (manual or non-manual workers). A possible explanation for this finding could be that the lack of (higher) education may restrict these individuals' job alternatives on the labor market, especially as the labor market becomes increasingly knowledge-driven and specialized (Ployhart & Bliese, 2006; van Eekelen, 2015). In addition, it is possible that these lower status positions are commonly intertwined with poorer working conditions and less satisfying jobs, which thus would mean lower satisfaction with the workplace. Furthermore, these findings also lend support to the standpoint that it is insufficient to simply categorize employees into manual workers or non-manual workers, at least when it comes to career control, since each category may harbor workers with both more or less beneficial working conditions and

labor market opportunities. For instance, there are both well-paid handicraftsmen with demanded competencies, and low-paid non-manual workers with tough working conditions.

Fourth, in regard to place of residence, employees who were living in sparsely populated areas were more often in RLI positions compared to those living in urban areas. Also, living in sparsely populated areas meant greater risk of later ending up in an RLI position. However, surprisingly, living in a sparsely populated area did not imply any greater probabilities for being or becoming LI. This was surprising, as sparsely populated areas are generally associated with higher unemployment rates and with a less varied labor market (Berntson et al., 2006; Kirschenbaum & Mano-Negrin, 1999), and the perceived employability among employees living in such areas is lower according to earlier studies (Berntson et al., 2006; Furåker et al., 2014; McGuinness & Wooden, 2009). A potential explanation for the link only to RLI might be that individuals choosing to live in the countryside may be fully aware of the fact that their possibilities to change workplace are fewer than in urban areas. Furthermore, living in the countryside often means that individuals must take on tasks outside of their paid work for the community to function. It may therefore be that those choosing to live in the countryside have a meaningful existence, but that this meaningfulness is not necessarily dependent on the paid work. Therefore, those living in the countryside may not value their employability and being at their preferred workplace as much as individuals living in the cities. It may therefore be that those living in the countryside are more satisfied with and willing to remain in their workplace (at least with regard to the near future).

Fifth, the results of Study I indicate that family situation was not of much significance in regard to locked-in positions, as having children or not did not matter and being single only meant slightly increased odds for being in an RLI position compared to being married/cohabitant. This indicates that family life is not the primary reason why individuals are or become locked-in.

To summarize, demographic factors did not seem to matter that much in regard to being locked-in, as most tested factors showed few if any associations with it. This would suggest that being locked-in could happen regardless of which demographical categories one belongs to. An important exception was socioeconomic position, where the findings of Study I indicate that unskilled manual workers and assistant non-manual workers are more often found in LI/RLI positions. Also, living in a sparsely populated area increased the odds for being/becoming RLI. However, it should be noted that Study I did not investigate ethnicity (due to a low number of immigrants responding to the SLOSH questionnaires), which may be of importance as immigrants on a general level have problems finding jobs, and also may get

jobs for which they are overqualified (Quintini, 2011b). In future studies this group should be studied more in relation to being locked-in. Also, even though some factors did not increase the odds for LI/RLI positions, there may be certain profiles of two or more demographic factors that do increase the odds. For instance, women in unskilled manual job positions may be more at risk than men, or vice versa. Therefore, the interaction effects of demographic factors should be studied in the future.

Finally, the findings indicate that being in either LI or RLI extensively increases the odds for being in an LI/RLI position two years later, in comparisons to individuals who were not locked-in. In particular, for individuals being in an RLI position the odds ratios for remaining in RLI were comparable to the odds ratios for becoming LI. For an LI, there were high odds of remaining in LI, but also heightened odds for their status changing to RLI compared to individuals who were not locked-in. Thus, this indicates that there are changes in locked-in status over time, and many of these will take place within/between LI/RLI positions. An investigation of common patterns of changing between different locked-in statuses over time would be an avenue for future studies.

Helplessness and being locked-in

The results from Study II, scrutinizing the relationship between helplessness and being locked-in (the risk category was excluded) over time, indicated that helplessness and being locked-in were in fact associated. Moreover, there was a reciprocal relationship between them over time, where helplessness primarily had an effect on being locked-in four years later, but in addition, being locked-in had an effect on helplessness. Hence, two parallel mechanisms may operate concurrently. Even though the relationship between helplessness and being locked-in has not been tested before, this finding was in line with studies showing that psychological capital has positive associations with career outcomes (see e.g., Hirschi et al., 2015; Kirves, Kinnunen, & De Cuyper, 2014), in particular, with job satisfaction and employability.

Thus, feelings of helplessness may have a negative impact on the career, probably as a consequence of the passivity inherent in helplessness. The mechanism behind the link between feeling helpless and being in a locked-in position may take time to evolve. For some individuals, the course of events may be linked to the individualization of the labor market, where it is suggested that many individuals need to take more responsibility for their own careers and be more proactive than before. This could include the need to survey, and perhaps invest in, their employability to remain/become attractive

on the labor market. It could also include trying to influence their current work conditions and work roles, also during/after organizational changes. Otherwise, employees may, over time, risk getting stuck in a non-preferred position or perhaps may become marginalized during organizational changes.

The other direction of the relationship, from being locked-in to helplessness, complies with the notion that helplessness may be learned (developed) if one is in an adverse situation with no control (Abramson et al., 1978; Maier & Seligman, 1976). The result may also be interpreted in the light of the scarring hypothesis, stating that an adverse work position (such as being locked-in) may leave a scar, which may have long-term implications for both helplessness and depression years later (King, 2004; Virtanen et al., 2016). Here, it should be noted that the effect of being locked-in on helplessness was very small, but still it is interesting that a link could be shown as much as four years later, during which time probably a number of good as well as bad things will have occurred that hypothetically may influence helplessness levels. Thus, the theoretical proposition that helplessness may spread between domains in life and over time (Abramson et al., 1978) are supported, as helplessness and being locked-in were indicated to be related and to influence one another. For some individuals, even hopelessness (a closely related concept to helplessness according to CATS (Ursin & Eriksen, 2004, 2010)) may develop as a consequence of being locked-in if they blame themselves for getting into the locked-in position in the first place. Such a relationship was not part of this study, but could be investigated in future studies.

The bidirectional relationship found may result in vicious cycles in which helpless individuals risk ending up in less advantageous jobs/situations, which in turn increase feelings of helplessness. This would be an interesting avenue for future research. For this purpose it would be necessary to follow individuals over at least three measure points.

Beside demographics, job change and reorganization were also controlled for. A majority of the individuals had been part of at least one reorganization during the four years between the two measure points, which is in line with the notion that reorganizations take place frequently nowadays (Caldwell, 2013; Van Dam, 2013). Also, one out of four individuals had changed jobs during the same four-year period. Based on the notion that helplessness implies passivity (Abramson et al., 1978; Henkel et al., 2002), one would assume that individuals high in helplessness would change jobs less frequently. Surprisingly, this was not supported by the results of Study II. This may be due to the fact that the measure for job change did not discriminate voluntary job changes from involuntary job changes. Perhaps the number of voluntary as compared to involuntary job changes is larger among individuals with low helplessness levels, whereas for individuals with higher levels of

helplessness, involuntary job changes may occur more frequently due to organizational reorganizations. This would be an interesting question to investigate in more detail in future research. Also, it would be of interest to study whether in fact passivity, in the form of low career self-management and low proactivity, is what mediates the relationship between helplessness and being locked-in.

Being locked-in, and well-being and health

Study III investigated how being locked-in at the workplace was related to well-being and health. The associations between both changing and stable locked-in-related patterns and well-being, operationalized as self-rated health and depressive symptoms, were investigated.

The results of Study III support the assumption that being in locked-in positions (being locked-in or being at risk of becoming locked-in) are negative for well-being and health. Here those in the risk category had an intermediate position in relation to well-being and health in comparison with the other two stable categories, i.e., those who were at risk of becoming locked-in across time reported poorer well-being and health compared to those who were not locked-in, whereas those who were locked-in across time reported the poorest well-being and health. This finding applied to both self-rated health and depressive symptoms. This (together with the findings from Study I) implies that both locked-in positions (LI and RLI) are worth studying further (cf. the fourth aim of this thesis).

Furthermore, Study III examined how well-being and health would be affected by changes in locked-in status. The results largely supported the proposition that well-being and health would deteriorate in cases where locked-in status became less favorable, but on the other hand, would improve in cases where locked-in status became more favorable. The particular change from not being locked-in to being at risk of becoming locked-in turned out to be an exception, since it was followed neither by an increase in depressive symptoms nor a decrease in self-rated health. Overall, the impact on depressive symptoms turned out to be more distinct than the implications for self-rated health.

The findings of Study III are largely in accordance with what can be expected in terms of existing theories. According to the control theory (Carver & Scheier, 1982) and PE fit framework (Edwards, 1992), individuals strive for an overall fit between their work and themselves. However, when perceiving it as unfeasible to overcome/bridge inconsistencies between the current job and the wanted one, the individual will desist from any further attempts to improve their fit as they lack control over their situation. Furthermore, being

locked-in means to have to cope with a job that is unsatisfying, and that one no longer wants, which would bring about further resource losses in terms of energy depletion as suggested in the COR theory (Hobfoll, 1989). Thus, being locked-in probably decreases well-being and health over time. The same reasoning may explain the intermediate well-being and health levels reported by the individuals in the risk category, since being at risk of becoming locked-in also implies having low control over the work due to perceptions of low employability. Here, the main difference between being locked-in and being at risk of becoming locked-in is that individuals in the risk category want to leave but are satisfied for the moment. Accordingly, they face a less stressful situation with fewer resource losses. As a consequence, locked-in status changes—between being locked-in, the risk category and not locked-in positions—could affect well-being and health by reflecting resource losses and resource gains in accordance with COR theory (Hobfoll et al., 2003). The results of Study III support this notion to a large extent. The exception mentioned before—a change from not being locked-in to being at risk of becoming locked-in, where no negative implications for well-being and health could be detected—suggest that such changes may not bring about resource losses at once, but after a longer period of time (as those stable in the risk category were shown to have poorer well-being than those who were in stable, not locked-in positions).

These results are also in line with earlier empirical findings on well-being and health and either non-preference toward one's workplace or employability (see e.g., Aronsson et al., 2000; Berntson & Marklund, 2007; Kirves, Kinnunen, De Cuyper, et al., 2014; Muhonen, 2010; Vanhercke et al., 2015) and non-preference and employability combined (Fahlén et al., 2009; Furåker, 2010).

In Study III, it was not possible to rule out that some of the found associations were a consequence of a recursive causality, meaning that poor well-being and health also might affect locked-in status. Based on the result from Study I, poor physical and mental work ability, which have associations with well-being (von Bonsdorff et al., 2011), did to some extent increase the odds for being/ending up in a locked-in position, supporting the idea that some of the relations found in Study III could perhaps be due to such a reversed mechanism. In order to study such a relationship in more detail other designs would be needed. Also, in the future, it would be valuable to investigate objective physical measures of health, such as sick leave, medical history and drug prescription. Future studies should also compare (between individuals) the effect of being locked-in on well-being and health to other psychological career-related variables known to be detrimental to well-being, such as job insecurity or being in temporary or part-time contracts involuntarily.

Methodological considerations

As with any study, there are some methodological considerations that should be reflected upon in accordance with the empirical studies of this thesis. However, first, it should be noted that the studies are based on collected data from a large, approximately representative part of the Swedish working population. Second, even though all data came from the SLOSH cohort database, the samples were based on different years and inclusion criteria. Hence, the samples differ to a large extent, which is a strength. Moreover, the conceptualization/operationalization of locked-in status was further developed and tested in the light of both determinants and outcomes.

Self-reports

This thesis is based on self-reported measures, with some exceptions of register data for demographic variables. Self-reports are in many cases the most accurate method (and often the only way) to collect data whenever the phenomenon of interest is something felt or perceived by the individual him-/herself (Spector, 2006). This is the case for the purpose of the present thesis where it is not the factual state of being locked-in that is targeted, but the individual's own perceptions of being locked-in. However, self-report surveys as the only means of data collection may be seen as inferior to studies using several methods due to the risk of common method variance, reflecting that associations between variables collected in the same way may be inflated (Campbell & Fiske, 1959; Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003; Spector, 1994). Several biases may be a cause of common method variance (for a review, see Podsakoff et al., 2003). One bias that may be of interest in the realm of this thesis is social desirability bias (Spector, 2006), i.e., an individual's desire to be viewed favorably by others. In this thesis, it could be argued that Study II was the most susceptible to this bias since high levels of helplessness may be viewed as undesirable, and consequently, helplessness levels may have been somewhat underestimated. Whether, in addition, non-preference and employability perceptions are sensitive to such bias could be questioned. However, for employability, the alternative 'don't know' was also given as a possibility in the answering format. Thus, a person with low employability could have chosen to respond 'don't know' in order to avoid admitting perceptions of low employability. In such a case, the person would have been excluded from any further analysis. In addition, according to preliminary analyses, the correlation between employability and preferences was very small (.04), which contradicts the assumption that the data was very affected by social desirability bias.

Furthermore, common method variance can be kept to a minimum by, for instance, making sure that the data collection procedure is, and is perceived to

be, anonymous and confidential (Podsakoff et al., 2003), as was done in the SLOSH data collection. As a last remark, the evidence from studies targeting the potential common method variance problem is equivocal, and sometimes, relationships may in fact be attenuated rather than inflated (Spector, 2006).

The risk for common method variance also decreases if the variables are measured some time apart; therefore, longitudinal studies are preferable over cross-sectional studies (Podsakoff et al., 2003; Spector, 1994). In all of the studies reported in the present thesis, two waves of data collection are utilized, from two years to as much as four years apart, which should also help to reduce problems of common method variance.

Causality

To state a causal relationship between two variables, there are three criteria that have to be met (Bollen, 1989). First, the two variables have to be related, second, one variable has to precede the other in time, and third, it has to be ruled out that no other variables (so-called third variables) are the real cause of the association. In the three studies in this thesis, the first two criteria were met, i.e., there were correlations and longitudinal data were utilized. However, the third was impossible to completely protect against, as although the studies controlled for several variables that theoretically may have had an impact on the particular relationships under scrutiny, there may have been other third variables that were not tested for.

Another question that should be raised when wanting to study a particular relationship over time is how long the interval between data collections should be to best capture lagged effects from one variable on another. Here, the choice should be based on theory and earlier empirical studies (Taris & Kompier, 2014). This is very complex, as such a decision not only depends on the process involved and the properties of the two variables in question, but also on the context in which the process takes place (Taris & Kompier, 2014). Generally, there is little knowledge of an optimal time gap as a knowledge bank needs to be built up for a special relationship, and there are hardly any earlier longitudinal studies investigating determinants for locked-in status and outcomes of being locked-in. Thus, even though one can theoretically argue for that it may take time to develop a state of locked-in and helplessness, the used time frames of two years (Study I) and four years (Study II), may have been too long. Therefore, future studies could benefit from utilizing shorter time gaps, as well as more than two time points.

A related question is whether the choice of data collections, from a time perspective, may have influenced the findings; for instance, there was a global economic recession in 2008–2009. Here again more research is warranted as

the present studies did not specifically examine such relationships. However, preliminary analysis comparing the unemployment rates (Statistics Sweden, 2018) with the total numbers of employees being locked-in according to the SLOSH database, shows that there was a positive relationship between these two variables. The highest numbers of employees being locked-in were in the years 2010 and 2012 (levels about 6.5%); thereafter, the number decreased, and the levels were at 5.2% in 2014 and 4.6% in 2016. This might for instance have underestimated the strength of the cross-lagged relationship between helplessness and being locked-in (2012 to 2016), since individuals, possibly due to a slightly better labor market in 2016 compared to 2012, may have avoided a locked-in position in 2016 despite feeling high helplessness in 2012. In the same vein, the longitudinal analyses of Study I (2014 to 2016) may have underestimated the impact of the matching factors on the development of locked-in. In regard to the association between the demographic factors and changes in locked-in status over time, some change possibly may be explained by some labor market sectors being more affected than other sectors by a decrease in the national unemployment rate.

Single items

In the field of psychology research, multiple-item scales are generally preferred over single items. However, long scales are typically not feasible in large data collections, such as the SLOSH cohort study where many research questions are addressed, and long tedious surveys risk overwhelming the respondents and have high dropout levels. Consequently, the three studies of this thesis contain several single items. However, according to some scholars (Gilbert & Kelloway, 2014; Wanous, Reichers, & Hudy, 1997), this does not necessarily have to be a major threat to the validity of the scale, as long as the construct (that one aims at measuring) is rather straightforward and narrow in its content; that is, it does not consist of more than one dimension. Of great importance for the purpose of the present thesis is the focal concept of locked-in status, which was composed from the two single items: workplace non-preference and employability. First, multiple-item scales measuring perceived employability have in earlier studies demonstrated extraordinary reliability (Berntson, Näswall, & Sverke, 2008; De Cuyper & De Witte, 2011)³ and being of one-dimension (see, e.g., Berntson & Marklund, 2007), which implies that employability seems to have been operationalized as a fairly narrow and unidimensional concept. Moreover, several studies have successfully utilized a similar (to the present thesis) single item (see e.g., Berntson et al., 2006; De Cuyper, De Witte, Kinnunen, & Nätti, 2010; Kirves, De Cuyper, Kinnunen, & Nätti, 2011; Silla, Gracia, & Peiró, 2005).

³ The concept of “external quantitative self-rated employability” in the study of De Cuyper and De Witte (2011) corresponds to the definition of employability in the present thesis

Second, the measure for workplace non-preference earlier used in locked-in studies (Aronsson et al., 2000) was in SLOSH (Magnusson Hanson et al., 2018) supplemented with an answer alternative, and therefore the measure addresses both overall job satisfaction and turnover intentions. Here, studies have validated that a single item could be used to capture the concept of overall job satisfaction (Dolbier, Webster, McCalister, Mallon, & Steinhardt, 2005; Fisher, Matthews, & Gibbons, 2016; Wanous et al., 1997). Also, if the target is overall satisfaction with the job, a single item could be preferable to a scale measuring several facets of the job as there would be risk of missing some important factors (Scarpello & Campbell, 1983). Moreover, turnover intention, which could be argued to be a dichotomous decision (Eberly, Bluhm, Guarana, Avolio, & Hannah, 2017), have been measured by single items in several studies (for an example, see Kudo et al., 2006). Furthermore, strong correlations between turnover intentions and job satisfaction have been shown (Wheeler, Gallagher, Brouer, & Sablynski, 2007; Zimmerman & Darnold, 2009). Taking the above factors into account, future research is needed to determine the extent to which job satisfaction or turnover intentions are behind the non-preference, but there is reason to believe that employability and perhaps even non-preference can be measured efficiently with single items.

General discussion and future research

Research on locked-in status, its determinants and consequences, is still in its infancy. For example, there are still uncertainties about how to best conceptualize being locked-in, as this thesis has demonstrated. In terms of measurement of the phenomenon, it has been operationalized with either a single item for non-preference – the willingness to change (see e.g., Aronsson et al., 2000), or a single item for employability – the ability to change (see e.g., Furåker et al., 2014). In the present thesis, the locked-in status reflected both the willingness to change and the (lack of) ability to do so. This conceptualization had rarely been used before (for an exception, see Fahlén et al., 2009).

Being locked-in and career control

To be locked-in reflects having low control over one's career. According to the definition of career control by Guest and Rodrigues (2015), career control accounts for how much the individuals perceive themselves as being in charge (control) over their careers by for instance deciding on their own actions, and making choices and decisions in regard to these. In the present thesis, it was further suggested that career control can be seen as the individuals' perception

of their ability to improve their PE fit—when needed or desired, that is, to steer the career in the desired direction (see process model in Figure 2).

Willingness to remain in one's workplace/organization was, in this thesis, proposed to reflect overall PE fit between the individual and the workplace/organization. A first question thus is whether in fact workplace preferences really correspond to and can work as a proxy for the overall PE fit. Furthermore, as PE fit according to the PE fit framework, is built on the fit between the person and all job-related levels (PV, PO, PJ, PG fit etc.) (Jansen & Kristof-Brown, 2006), a second question is whether some levels of PE fit are more important or even crucial as contributing factors for such an overall PE fit, as well as whether needs–supplies fit and demands–abilities fit are equally important.

In regard to these questions, there is empirical evidence of medium to strong associations for job satisfaction and turnover intentions with different levels and dimensions of PE fit (Kristof-Brown et al., 2005; Oh et al., 2014), indicating that different levels and dimensions of PE fit contribute to overall preferences toward the workplace/organization. The findings of Study I supported the contention that matching factors on PJ level, targeting demands–abilities misfit, could increase the odds for being/becoming locked-in. However, future studies should also target matching factors on other levels, such as the team and organization level, and also needs–supplies fit, that is whether the workplace/organization could meet the employees' needs and desires.

Furthermore, employability was in this thesis equated to the ability part of the locked-in conceptualization and was seen as being essential for career control, since knowing of other available jobs that one could get employed in means an individual is able to leave an unwanted work situation or feels more empowered to increase PE fit at the current workplace. Employability was conceptualized as opportunities to find a 'similar' job and not a 'better' job. However, for individuals who have reached a career plateau, a 'similar' job offer may in their view not be enough, and perhaps, as a consequence, they may feel locked-in. Under these circumstances, defining the new job as a 'better' job may have its advantages, but could also entail the risk of classifying too many individuals as being locked-in. Empirical evidence indicates that perceptions of being able to find a similar versus find a better job have strong associations (De Cuyper & De Witte, 2011; Van den Broeck et al., 2014), but have also been indicated to sometimes relate to attitudes differently (De Cuyper & De Witte, 2011). Therefore, it would be worth scrutinizing employability perceptions in more detail, in regard to what individuals understand by the terms 'better' or 'similar', and investigating whether this distinction affects the relation between employability and being

locked-in. For instance, is this evaluation by employees primarily concerned with objective outcomes, such as salaries, benefits, and positions, or with more subjective outcomes, such as job satisfaction, potential for personal development and possibilities to combine with family demands?

A related question is whether there are other factors, apart from the scarcity of other jobs, that are perceived as major obstacles preventing individuals from changing jobs, and that may make people feel locked-in. Such factors (discussed in for instance research of embeddedness, see Mitchell, Holtom, Lee, Sablinski, and Erez (2001)) concern ties to the organization, such as retirement benefits and long tenure, where the latter in countries with strong employment protection legislation may mean job security in times of lay-offs. However, it could be argued that such factors should be taken into account by individuals when evaluating their PE fit, as salaries/employment benefits, as well as job security may tap into needs-supplies fit. Perhaps the use of qualitative methods, through interviews with employees feeling stuck in their workplace, would be a suitable approach to filling these knowledge gaps.

At risk of becoming locked-in

This thesis distinguished a category of employees not yet being locked-in, but being at risk of becoming locked-in. The theoretical thought behind this division was that some employees might be at an early stage of locked-in, that risks over time developing into a real locked-in situation if employability does not improve. Furthermore, the idea was that being in the risk category per se would be troublesome since such position also would be related to low control and loss of resources. This was supported by Study III, which indicated that being at risk of becoming locked-in in relation to well-being is an intermediate stage. Furthermore, Study I supported the notion that being at risk of becoming locked-in differed from both being locked-in and not being locked-in since it related to determinants somewhat differently. Finally, the findings of Study I indicated that in comparison to employees not being locked-in, being either locked-in or at risk of becoming locked-in increased the odds for also being either locked-in or at risk of becoming locked-in later on. For individuals in the risk category, the odds for remaining at risk of becoming locked-in (two years later) were similar to the odds for becoming locked-in. This would mean that the risk category really is 'at risk of becoming locked-in', as the name suggests.

In sum, based on theory and empirical evidence, there seem to be reasons for separating this risk category from the other two categories: being locked-in and not being locked-in. This reflects a differentiation both in turnover intentions and satisfaction levels. Future research could investigate why some individuals remain in the risk category over time. One possibility is that they

have initially set a long time horizon for their future job change; another possibility is that this time horizon is moved forward while they convince themselves that they are satisfied for the time being. The latter explanation may be valid as, to protect their self-image, workers can be motivated to re-evaluate their opinion about what they initially considered to be an unfulfilling workplace to more match their needs and wishes (Shipp & Jansen, 2011). Thus, an unfulfilling workplace may be reconstructed as acceptable for the time being, which might indicate that some individuals who are ‘truly’ locked-in may be categorized in the risk category.

A category of individuals that were not the focus of this thesis, but which might be of interest in future research as they also may possibly be at risk of becoming locked-in, is the category of employees who reported being in a preferred workplace, but at the same time reported low employability. Individuals in this category may—as suggested in this thesis—perceive high career control (as they are satisfied with and want to remain in their workplace). However, it could also be argued that individuals in this category actually lack career control as they are more vulnerable to changes in the workplace compared to their counterparts who are both satisfied and report high employability. It would be of interest to study how this category of individuals evaluates their career control and, furthermore, to examine whether they also risk becoming locked-in over time.

Future development of the process model

This thesis has presented a theoretical model based on control theory and the PE fit framework (Figure 2), which may help in understanding and explaining the locked-in phenomenon. At the very heart of the model was the self-regulation process, containing the evaluation of PE fit (workplace preferences) and the outcome expectancy of improving PE fit whenever needed (employability). This model reflects the idea that employability plays a central role of enabling the individual to exert control over the career by re-establishing PE fit when it is found to be unsatisfactory.

The model was used as a theoretical framework for the studies in this thesis. For example, the model suggested that background factors were related to locked-in status. The empirical results of the thesis supported that some demographic factors—mainly socioeconomic position and to some extent gender and place of residence—and dispositions (helplessness) were of significance. Since, being locked-in was found to have minor implications for helplessness over time, an arrow (thin) from locked-in leading back to dispositions may be added in the model to be in accordance with this finding.

Individual matching factors between individual and job—in regard to knowledge/skills and work ability—were suggested to be associated with overall PE fit. Here, the model may need further refinement to integrate the possibility that personal factors and environmental factors exert a combined effect.

Moreover, the findings of this thesis indicate that there may be well-being and health consequences of being in locked-in positions, and hence, the model might be extended by arrows from the different locked-in statuses to health outcomes. The mechanisms behind such relationships were suggested to be the result of the lack of (career) control. An interesting avenue for future research would be to determine whether these changes in locked-in status were mostly due to changes in preferences or in employability levels.

Furthermore, the model suggested that individuals with high employability would try to improve their PE fit, for instance by job adaptations, job crafting, or real job changes (shown in the box called ‘attempt to improve PE fit’). In order to evaluate and develop the model, these different proactive actions—and under which conditions they are utilized—need to be examined in more detail.

Locked-in in vocation

Furthermore, employees could be locked-in not only at their workplace/organization, but also as regards their vocation (Aronsson & Göransson, 1999). This thesis did not consider this aspect of being locked-in (more than occupation non-preference as a control variable in Study III); however, since it is not entirely unusual for individuals to want to change their careers in the course of a whole working life (Fouad, 2007) more research should also target this kind of locked-in situation. Future studies could build on Fahlén and others’ (2009) operationalization for this phenomenon, using a combination of non-preference for the current vocation (willingness to change vocations)—which would be related especially to person–vocation (mis)fit—and how easy it would be to find another job in another vocation (ability to change). Research would probably benefit if questions pertaining to this latter dimension were modified to ‘desired’ vocation instead of just any other vocation and if questions were added about the opportunities for obtaining the necessary education/training for that vocation.

Other concepts related to being locked-in

Other research streams have, though generally not as their main focus, come across a profile/category sometimes referred to as ‘stuck’ or ‘trapped’. For instance, in the organizational commitment framework, a combination of low

affective commitment—reflecting “the employee’s emotional attachment to, identification with, and involvement in the organization” (Meyer & Allen, 1991, p. 67)—and high continuance commitment—referring to the need to continue the employment in the organization, due to 1) ties to the organization that will be broken, and bringing costs if leaving (e.g., retirement benefits or organization-specific skills), and 2) few other alternatives (cf. employability)—may be problematic (Dello Russo, Vecchione, & Borgogni, 2013; Meyer, Stanley, & Parfyonova, 2012; Stanley, Vandenberghe, Vandenberg, & Bentein, 2013).

Yet another research stream hypothesized that individuals could be categorized into different career profiles depending on their levels of protean and boundaryless orientations (Briscoe & Hall, 2006). Here the most exposed profile would be those with low values on all orientations—the ‘trapped/lost’—as they, as the name suggests, are at risk of becoming trapped/lost in their careers due to lack of direction (Briscoe & Hall, 2006). Supporting this notion, for example Kuron, Schweitzer, Lyons, and Ng (2016) found that individuals with this profile reported a lower internal locus of control compared to the other profiles, as well as both lower career commitment and career satisfaction. This aligns with the suggestion that being locked-in is more common among those with low protean and boundaryless orientations, as they are poor at managing their own careers.

Future research should investigate whether there is any relationship between locked-in status—following/building on a Swedish research tradition—and these ‘stuck’/‘trapped’ profiles found in these other research streams. This could give valuable insights into the process of further improving the conceptualization of being locked-in.

A criticism that could be brought forward in relation to all of these approaches (including the operationalization used in this thesis) is that none of them measures whether the individuals really feel locked-in/stuck/trapped in their workplace/organization. For instance, some individuals may be content with a job to which they feel low affective commitment, as perhaps they want to devote all their commitment to their family or to a hobby. Likewise, a person having high employability might anyway feel stuck, since personality or other factors, such as family obligations or fear of change, may make it difficult to ‘use’ this employability. Consequently, it would be of value to develop a multiple-item scale directly targeting locked-in perceptions.

Other determinants and outcomes

In this thesis, various determinants were studied and found to relate to being locked-in. These were factors tied to demographics, helplessness, and some

matching factors in relation to the individual and work. However, there is still much variance in locked-in status that is not explained. Hence future studies should scrutinize other factors that have not yet been tested. For example, social capital in the form of the social interaction with other employees and employers may be of importance. For example, social support from managers or coworkers may protect individuals from becoming locked-in (Aronsson et al., 2000; Aronsson & Göransson, 1999), or, on the other hand, conflicts with coworkers or customer/patients/pupils might increase the risk of becoming locked-in. Such associations could be studied in future research.

Furthermore, other consequences of being locked-in, in addition to other well-being measures, should be targeted in future research. For example, performance and productivity could be studied. Also, more objective career outcomes such as salaries and promotions, as well as disability pensions and retirement age, could be worth studying.

Conclusions

As the labor market becomes more flexible and individualized, the individuals themselves need to be more proactive and take charge of their own careers. Individuals being locked-in at their workplaces have to a large extent been neglected in research even though there are indicators that these positions have associations with poor health. The phenomenon of being locked-in was, therefore, the focus of this thesis.

The present thesis contributes to the research on being locked-in by advancing its conceptualization: firstly, by taking into consideration both willingness and ability to change workplace (which has seldom been done), and secondly, by considering a category of employees at risk of becoming locked-in. This thesis also provides new insights into individual determinants of being locked-in by examining demographic factors and matching factors between the individuals and their jobs, in terms of qualifications (knowledge/skills) and work abilities.

The empirical findings of this thesis indicate that education (vocational or academic) generally is beneficial, as unskilled workers and assistant non-manual workers were the categories most often found in locked-in positions. However, a balance between demands and abilities should be maintained, for example, the work tasks should not exceed the work abilities of the individual, and the individuals' knowledge and skills should not exceed those required by the work tasks. In regard to other demographic factors (except for socioeconomic position), very small or no differences were detected, which suggests that demographics are not of great importance in terms of who is or at risk of becoming locked-in.

Also, helplessness—a psychological deficit in terms of the psychological capital—was found to relate to being locked-in, primarily as a determinant. This may be explained by the fact that helplessness implies passivity, which may result in a passive approach toward career matters. Thus, locked-in perceptions may develop as a consequence of not taking action when a misfit between the person and the work arises, for example when the needs and abilities of the individual change or the workplace changes in a non-desirable way not matching the needs and abilities of the individual any longer. Also, a reversed association was found: to some extent, being locked-in also related to subsequent helplessness levels, which may be explained by a scarring effect.

Moreover, by showing that those who were stably locked-in over time reported poorer well-being and health compared to those who were not locked-in, this thesis adds to the knowledge of being locked-in and its relationship to health. The category of employees at risk of becoming locked-in had an intermediate level of well-being and health, better than those who were locked-in, but worse than those employees who were not locked-in. More interestingly, due to the longitudinal design of the study, the results could show that changes in locked-in status were followed by changes in well-being and health. The found relationships and changes were as expected based on theoretical reasoning (e.g., control and COR theories) and indicate that being locked-in has well-being and health implications.

Furthermore, the present thesis incorporates the phenomenon of being locked-in into a theoretical perspective of career control and the PE fit framework. In an effort to depict this integration of theories and to simplify the conceptualization of the locked-in phenomenon to the reader, this thesis also provided a process model. This process model could be tested in more detail and developed further in future studies.

As being in locked-in positions is indicated to have negative health implications, it is not only in the interest of the individuals but also of the organizations to put effort into preventing locked-in developments among their staff. But what can be done? The findings of this thesis suggest that efforts should be made to match work tasks with employees' knowledge and skills as well as their work abilities. Since being locked-in includes two components, preferences for the workplace and employability perceptions, each of them may be targeted to ensure a change for the better. There is an extensive body of literature on how to provide for the former one. Just to mention a few, self-determination (autonomy) and organizational justice have been found to have positive associations with preferences/satisfaction toward the workplace. On the other hand, employability could be nurtured and

increased by for example, training and on-the-job learning. Also, job coaching and counseling may help employees who feel stuck in their jobs to find new perspectives and new labor market opportunities, and such interventions would probably particularly benefit individuals high in helplessness by providing them with tools to master the ‘modern’ more individualized labor market.

On a society and national level, helping people to find a better fit between themselves and their work would be beneficial as this could be argued to decrease sick leave costs. At the same time, it would have positive implications for overall mobility on the labor market—as abandoned positions would mean opportunities for other individuals, in their turn, to find a better match between themselves and the work, or alternatively leave unemployment altogether.

References

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*(1), 49–74.
- Aigner, D. J., & Cain, G. G. (1977). Statistical-theories of discrimination in labor-markets. *Industrial & Labor Relations Review, 30*(2), 175-187. doi:10.2307/2522871
- Akkermans, J., Brenninkmeijer, V., Huibers, M., & Blonk, R. W. B. (2012). Competencies for the Contemporary Career. *Journal of Career Development, 40*(3), 245-267. doi:10.1177/0894845312467501
- Arai, M., Gartell, M., Rödin, M., & Özcan, G. (2016). *Stereotypes of physical appearance and labor market chances*. Working paper 2016:20. The Institute for Evaluation of Labour Market and Education Policy (IFAU).
- Aronsson, G. (1989). Swedish research on job control, stress and health. In S. L. Sauter, J. J. Hurrell, & C. L. Cooper (Eds.), *Job control and worker health* (pp. 75–88). New York: Wiley.
- Aronsson, G., Dallner, M., & Gustafsson, K. (2000). Yrkes- och arbetsplatsinlåsning: En empirisk studie av omfattning och hälsokonsekvenser [Locked-in, in the occupation and the working place. An empirical study of prevalence and health consequences]. *Arbete & Hälsa, 5*, 1–25.
- Aronsson, G., & Göransson, S. (1999). Permanent employment but not in a preferred occupation: Psychological and medical aspects, research implications. *Journal of Occupational Health Psychology, 4*(2), 152-163. doi:10.1037/1076-8998.4.2.152
- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior, 15*(4), 295–306.
- Arthur, M. B. (2014). The boundaryless career at 20: where do we stand, and where can we go? *Career Development International, 19*(6), 627-640. doi:10.1108/cdi-05-2014-0068
- Atkinson, J. W. (1964). *An introduction to motivation*. Princeton, NJ: Van Nostrand.
- Bailis, D. S., Segall, A., & Chipperfield, J. G. (2003). Two views of self-rated general health status. *Social Science & Medicine, 56*(2), 203-217. doi:10.1016/S0277-9536(02)00020-5
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328. doi:10.1108/02683940710733115
- Baruch, Y. (2015). Organizational and labor markets as career ecosystem. In A. De Vos & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 364-380). Cheltenham: Edward Elgar.

- Baruch, Y., & Bozionelos, N. (2010). Career issues. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology, Vol. 2: Selecting and developing members for the organization* (pp. 67-113). Washington, DC: American Psychological Association.
- Baumeister, R. F., & Muraven, M. (1996). Identity as adaptation to social, cultural, and historical context. *Journal of Adolescence, 19*(5), 405-416. doi:10.1006/jado.1996.0039
- Bernhard-Oettel, C., De Cuyper, N., Berntson, E., & Isaksson, K. (2008). Well-being and organizational attitudes in alternative employment: The role of contract and job preferences. *International Journal of Stress Management, 15*(4), 345-363. doi:10.1037/a0013869
- Bernhard-Oettel, C., Stengård, J., Leineweber, C., Westerlund, H., Peristera, P., & Östergren, P. O. (2018). Stuck at a workplace: What's work control, demands and learning got to do with it? A longitudinal multilevel study on Swedish permanent employees in situations of 'workplace locked-in'. *The International Journal of Human Resource Management, Advanced online publication*. doi:10.1080/09585192.2017.1423101
- Berntson, E., & Marklund, S. (2007). The relationship between perceived employability and subsequent health. *Work & Stress, 21*(3), 279-292. doi:10.1080/02678370701659215
- Berntson, E., Näswall, K., & Sverke, M. (2008). Investigating the relationship between employability and self-efficacy: A cross-lagged analysis. *European Journal of Work and Organizational Psychology, 17*(4), 413-425. doi:10.1080/13594320801969699
- Berntson, E., Näswall, K., & Sverke, M. (2010). The moderating role of employability in the association between job insecurity and exit, voice, loyalty and neglect. *Economic and Industrial Democracy, 31*(2), 215-230. doi:10.1177/0143831x09358374
- Berntson, E., Sverke, M., & Marklund, S. (2006). Predicting perceived employability: Human capital or labour market opportunities? *Economic and Industrial Democracy, 27*(2), 223-244. doi:10.1177/0143831x06063098
- Blau, G. (2007). Does a corresponding set of variables for explaining voluntary organizational turnover transfer to explaining voluntary occupational turnover? *Journal of Vocational Behavior, 70*(1), 135-148. doi:10.1016/j.jvb.2006.07.007
- Bolino, M. C., & Feldman, D. C. (2000). The antecedents and consequences of underemployment among expatriates. *Journal of Organizational Behavior, 21*(8), 889-911. doi:10.1002/1099-1379(200012)21:8<889::aid-job60>3.0.co;2-g
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Bozionelos, N., Kostopoulos, K., Van der Heijden, B., Rousseau, D. M., Bozionelos, G., Hoyland, T., . . . Van der Heijde, C. (2016). Employability and job performance as links in the relationship between mentoring receipt and career success. *Group & Organization Management, 41*(2), 135-171. doi:10.1177/1059601115617086
- Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior, 69*(1), 4-18. doi:10.1016/j.jvb.2005.09.002

- Briscoe, J. P., Hall, D. T., & Frautschy DeMuth, R. L. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, *69*(1), 30-47. doi:10.1016/j.jvb.2005.09.003
- Caldwell, S. D. (2013). Change and fit, fit and change. In S. Oreg, A. Michel, & R. T. By (Eds.), *The psychology of organizational change: Viewing change from the employee's perspective* (pp. 255-274). New York: Cambridge University Press.
- Caldwell, S. D., Herold, D. M., & Fedor, D. B. (2004). Toward an understanding of the relationships among organizational change, individual differences, and changes in person-environment fit: a cross-level study. *Journal of Applied Psychology*, *89*(5), 868-882. doi:10.1037/0021-9010.89.5.868
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, *56*(2), 81-105. doi:10.1037/h0046016
- Canivet, C., Aronsson, G., Bernhard-Oettel, C., Leineweber, C., Moghaddassi, M., Stengård, J., . . . Östergren, P.-O. (2017). The negative effects on mental health of being in a non-desired occupation in an increasingly precarious labour market. *SSM - Population Health*, *3*, 516-524. doi:10.1016/j.ssmph.2017.05.009
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical, and health psychology. *Psychological Bulletin*, *92*(1), 111-135.
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, *97*(1), 19-35. doi:10.1037/0033-295x.97.1.19
- Centers for Disease Control and Prevention [CDC] (n.d.). Health-related quality of life (HRQOL): Well-being concepts. Retrieved from March, 26, 2018, from <https://www.cdc.gov/hrqol/wellbeing.htm> - three
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, *4*(1), 62-83. doi:10.1177/109442810141004
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, *9*(2), 233-255.
- Claes, R., & Ruiz-Quintanilla, S. A. (1998). Influences of early career experiences, occupational group, and national culture on proactive career behavior. *Journal of Vocational Behavior*, *52*(3), 357-378. doi:10.1006/jvbe.1997.1626
- De Coen, A. (2012). *Working & aging: The role of age and employability regarding job search and retirement intention*. (doctoral dissertation). Catholic University of Leuven, Leuven, Belgium.
- De Cuyper, N., Baillien, E., & De Witte, H. (2009). Job insecurity, perceived employability and targets' and perpetrators' experiences of workplace bullying. *Work and Stress*, *23*(3), 206-224. doi:10.1080/02678370903257578
- De Cuyper, N., Bernhard-Oettel, C., Berntson, E., De Witte, H., & Alarco, B. (2008). Employability and employees' well-being: Mediation by job insecurity. *Applied Psychology: An International Review*, *57*(3), 488-509. doi:10.1111/j.1464-0597.2008.00332.x
- De Cuyper, N., & De Witte, H. (2011). The management paradox: Self-rated employability and organizational commitment and performance. *Personnel Review*, *40*(1-2), 152-172. doi:10.1108/00483481111106057

- De Cuyper, N., De Witte, H., Kinnunen, U., & Nätti, J. (2010). The relationship between job insecurity and employability and well-being among Finnish temporary and permanent employees. *International Studies of Management & Organization*, 40(1), 57-73. doi:10.2753/IMO0020-8825400104
- De Cuyper, N., Mauno, S., Kinnunen, U., & Mäkikangas, A. (2011). The role of job resources in the relation between perceived employability and turnover intention: A prospective two-sample study. *Journal of Vocational Behavior*, 78(2), 253-263. doi:10.1016/j.jvb.2010.09.008
- De Cuyper, N., Mäkikangas, A., Kinnunen, U., Mauno, S., & De Witte, H. (2012). Cross-lagged associations between perceived external employability, job insecurity, and exhaustion: Testing gain and loss spirals according to the conservation of resources theory. *Journal of Organizational Behavior*, 33(6), 770-788. doi:10.1002/job.1800
- De Cuyper, N., Raeder, S., Van der Heijden, B., & Wittekind, A. (2012). The association between workers' employability and burnout in a reorganization context: longitudinal evidence building upon the conservation of resources theory. *Journal of Occupational Health Psychology*, 17(2), 162-174. doi:10.1037/a0027348
- De Cuyper, N., Sulea, C., Philippaers, K., Fischmann, G., Iliescu, D., & De Witte, H. (2014). Perceived employability and performance: Moderation by felt job insecurity. *Personnel Review*, 43(4), 536-552. doi:10.1108/pr-03-2013-0050
- De Cuyper, N., Van den Broeck, A., & De Witte, H. (2015). Perceived employability in times of job insecurity: A theoretical perspective. In A. De Vos & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 161-174). Cheltenham: Edward Elgar.
- de Grip, A., van Loo, J., & Sanders, J. (2004). The industry employability index: Taking account of supply and demand characteristics. *International Labour Review*, 143(3), 211-233.
- de Jong, J., De Cuyper, N., De Witte, H., Silla, I., & Bernhard-Oettel, C. (2009). Motives for accepting temporary employment: A typology. *International Journal of Manpower*, 30(3), 237-252. doi:10.1108/01437720910956745
- De Vos, A., Forrier, A., Van der Heijden, B., & De Cuyper, N. (2017). Keep the expert! Occupational expertise, perceived employability and job search: A study across age groups. *Career Development International*, 22(3), 318-332. doi:10.1108/cdi-12-2016-0229
- De Vos, A., & Soens, N. (2008). Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, 73(3), 449-456. doi:10.1016/j.jvb.2008.08.007
- Dello Russo, S., Vecchione, M., & Borgogni, L. (2013). Commitment profiles, job satisfaction, and behavioral outcomes. *Applied Psychology*, 62(4), 701-719. doi:10.1111/j.1464-0597.2012.00512.x
- Diener, E. (2013). The remarkable changes in the science of subjective well-being. *Perspectives on Psychological Science*, 8(6), 663-666. doi:10.1177/1745691613507583
- Diener, E., Pressman, S. D., Hunter, J., & Delgado-Chase, D. (2017). If, Why, and When subjective well-being influences health, and future needed research.

- Applied Psychology-Health and Well Being*, 9(2), 133-167. doi:10.1111/aphw.12090
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276-302. doi:10.1037//0033-2909.125.2.276
- Dolbier, C. L., Webster, J. A., McCalister, K. T., Mallon, M. W., & Steinhardt, M. A. (2005). Reliability and validity of a single-item measure of job satisfaction. *American Journal of Health Promotion*, 19(3), 194-198. doi:10.4278/0890-1171-19.3.194
- Drew, B. L. (1990). Differentiation of hopelessness, helplessness, and powerlessness using Erik Erikson's "Roots of virtue". *Archives of Psychiatric Nursing*, 4(5), 332-337. doi:10.1016/0883-9417(90)90053-N
- Eberly, M. B., Bluhm, D. J., Guarana, C., Avolio, B. J., & Hannah, S. T. (2017). Staying after the storm: How transformational leadership relates to follower turnover intentions in extreme contexts. *Journal of Vocational Behavior*, 102, 72-85. doi:10.1016/j.jvb.2017.07.004
- Edwards, J. R. (1991). Person-job fit: A conceptual integration, literature review and methodological critique. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial/Organizational Psychology* (Vol. 6, pp. 283-357). Oxford, London: John Wiley & Sons.
- Edwards, J. R. (1992). A cybernetic theory of stress, coping, and well-being in organizations. *Academy of Management Review*, 17(2), 238-274. doi:10.2307/258772
- Edwards, J. R., Cable, D. M., Williamson, I. O., Lambert, L. S., & Shipp, A. J. (2006). The phenomenology of fit: linking the person and environment to the subjective experience of person-environment fit. *Journal of Applied Psychology*, 91(4), 802-827. doi:10.1037/0021-9010.91.4.802
- Edwards, J. R., & Shipp, A. J. (2007). The relationship between person-environment fit and outcomes: An integrative theoretical framework. In C. Ostroff & T. A. Judge (Eds.), *Perspectives on organizational fit* (pp. 209-258). New York: Taylor & Francis Group.
- Erdogan, B., Bauer, T. N., Peiró, J. M., & Truxillo, D. M. (2011). Overqualified employees: Making the best of a potentially bad situation for individuals and organizations. *Industrial and Organizational Psychology-Perspectives on Science and Practice*, 4(2), 215-232. doi:10.1111/j.1754-9434.2011.01330.x
- Eulberg, J. R., Weekley, J. A., & Bhagat, R. S. (1988). Models of stress in organizational research: A metatheoretical perspective. *Human Relations*, 41(4), 331-350. doi:10.1177/001872678804100404
- Fahlén, G., Goine, H., Edlund, C., Arrelöv, B., Knutsson, A., & Peter, R. (2009). Effort-reward imbalance, "locked in" at work, and long-term sick leave. *International Archives of Occupational and Environmental Health*, 82(2), 191-197. doi:10.1007/s00420-008-0321-5
- Fisher, G. G., Matthews, R. A., & Gibbons, A. M. (2016). Developing and investigating the use of single-item measures in organizational research. *Journal of Occupational Health Psychology*, 21(1), 3-23. doi:10.1037/a0039139

- Fouad, N. A. (2007). Work and vocational psychology: Theory, research, and applications. *Annual Review of Psychology*, 58(1), 543-564. doi:10.1146/annurev.psych.58.110405.085713
- Fouad, N. A., & Bynner, J. (2008). Work transitions. *American Psychologist*, 63(4), 241-251. doi:10.1037/0003-066X.63.4.241
- French, J. R. P., Jr., Caplan, R. D., & Harrison, R. V. (1982). *The mechanisms of job stress and strain*. London: Wiley.
- 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. doi:10.1016/j.jvb.2003.10.005
- Furåker, B. (2010). Inlåsnig på den svenska arbetsmarknaden [Locked-in in the Swedish labour market]. *Arbetsmarknad & Arbetsliv*, 16(4), 55-70.
- Furåker, B., Nergaard, K., & Saloniemi, A. (2014). Lock-in patterns among employees: A Nordic comparison. *Journal of Comparative Labour Law and Industrial Relations*, 30(4), 435-458.
- Geyer, S., Hemstrom, O., Peter, R., & Vagero, D. (2006). Education, income, and occupational class cannot be used interchangeably in social epidemiology. Empirical evidence against a common practice. *Journal of Epidemiology and Community Health*, 60(9), 804-810. doi:10.1136/jech.2005.041319
- Gilbert, S., & Kelloway, E. K. (2014). Using single items to measure job stressors. *International Journal of Workplace Health Management*, 7(3), 186-199. doi:10.1108/IJWHM-03-2013-0011
- Green, A., Shuttleworth, I., & Lavery, S. (2005). Young people, job search and local labour markets: The example of Belfast. *Urban Studies*, 42(2), 301-324. doi:10.1080/0042098042000316164
- Grusky, D. B., & Sorensen, J. B. (1998). Can class analysis be salvaged? *American Journal of Sociology*, 103(5), 1187-1234. doi:10.1086/231351
- Gubler, M., Arnold, J., & Coombs, C. (2014). Organizational boundaries and beyond. *Career Development International*, 19(6), 641-667. doi:10.1108/cdi-11-2013-0143
- Guest, D. E., & Rodrigues, R. (2015). Career control. In A. De Vos & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 205-222). Cheltenham: Edward Elgar.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance*, 16(2), 250-279. doi:10.1016/0030-5073(76)90016-7
- Hall, D. T. (1976). *Careers in organizations*. Santa Monica, CA: Goodyear.
- Hall, D. T. (1996). Protean careers of the 21st century. *Academy of Management Executive*, 10, 8-15.
- Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65(1), 1-13. doi:10.1016/j.jvb.2003.10.006
- Hedlund, M. (2014, September 14). Varannan svensk vill byta jobb. *Dagens Nyheter*. Retrieved from <https://www.dn.se/>
- Hendry, C., & Jenkins, R. (1997). Psychological contracts and new deals. *Human Resource Management Journal*, 7(1), 38-44. doi:10.1111/j.1748-8583.1997.tb00272.x

- Henkel, V., Bussfeld, P., Moller, H. J., & Hegerl, U. (2002). Cognitive-behavioural theories of helplessness/hopelessness: Valid models of depression? *European Archives of Psychiatry and Clinical Neuroscience*, 252(5), 240-249. doi:10.1007/s00406-002-0389-y
- Hiltrop, J.-M. (1995). The changing psychological contract: The human resource challenge of the 1990s. *European Management Journal*, 13(3), 286-294. doi:10.1016/0263-2373(95)00019-H
- Hinton, C. (2012). *The relationship between employability and hope*. (doctoral dissertation). DePaul University, College of Education Theses and Dissertations, 27. Retrieved from http://via.library.depaul.edu/soe_etd/27
- Hirschi, A. (2014). Hope as a resource for self-directed career management: Investigating mediating effects on proactive career behaviors and life and job satisfaction. *Journal of Happiness Studies*, 15(6), 1495-1512. doi:10.1007/s10902-013-9488-x
- Hirschi, A., Abessolo, M., & Froidevaux, A. (2015). Hope as a resource for career exploration: Examining incremental and cross-lagged effects. *Journal of Vocational Behavior*, 86, 38-47. doi:10.1016/j.jvb.2014.10.006
- Hobfoll, S. E. (1989). Conservation of resources - A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524. doi:10.1037/0003-066x.44.3.513
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632-643. doi:10.1037/0022-3514.84.3.632
- Holm, S., & Hovland, J. (1999). Waiting for the other shoe to drop: Help for the job-insecure employee. *Journal of Employment Counseling*, 36(4), 156-166. doi:10.1002/j.2161-1920.1999.tb01018.x
- Ilmarinen, J. (2001). Aging workers. *Occupational and Environmental Medicine*, 58(8), 546-552. doi:10.1136/oem.58.8.546
- Ilmarinen, J., Gould, R., Järvisalo, A., & Järvisalo, J. (2008). Diversity of work ability. In R. Gould, J. Ilmarinen, J. Järvisalo, & S. Koskinen (Eds.), *Dimensions of Work ability. Results of the Health 2000 Survey* (pp. 13-24). Helsinki: Finnish Institute of Occupational Health.
- Ilmarinen, J., Tuomi, K., & Seitsamo, J. (2005). New dimensions of work ability. In G. Costa, W. J. A. Goedhard, & J. Ilmarinen (Eds.), *Assessment and promotion of work ability, health and well-being of ageing workers* (Vol. 1280, pp. 3-7). Amsterdam: Elsevier Science Bv.
- Jansen, K. J., & Kristof-Brown, A. L. (2006). Toward a multidimensional theory of person-environment fit. *Journal of Managerial Issues*, 18(2), 193-212.
- Johnson, G. J., & Johnson, W. R. (2000a). Perceived overqualification and dimensions of job satisfaction: A longitudinal analysis. *The Journal of Psychology*, 134(5), 537-555. doi:10.1080/00223980009598235
- Johnson, G. J., & Johnson, W. R. (2000b). Perceived overqualification, positive and negative affectivity, and satisfaction with work. *Journal of Social Behavior and Personality*, 15(2), 167-184.
- Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. New York, NY: Basic Books.

- King, Z. (2004). Career self-management: Its nature, causes and consequences. *Journal of Vocational Behavior*, 65(1), 112-133. doi:10.1016/s0001-8791(03)00052-6
- Kirschenbaum, A., & Mano-Negrin, R. (1999). Underlying labor market dimensions of "opportunities": The case of employee turnover. *Human Relations*, 52(10), 1233-1255.
- Kirves, K., De Cuyper, N., Kinnunen, U., & Nätti, J. (2011). Perceived job insecurity and perceived employability in relation to temporary and permanent workers' psychological symptoms: a two samples study. *International Archives of Occupational and Environmental Health*, 84(8), 899-909. doi:10.1007/s00420-011-0630-y
- Kirves, K., Kinnunen, U., & De Cuyper, N. (2014). Contract type, perceived mobility and optimism as antecedents of perceived employability. *Economic and Industrial Democracy*, 35(3), 435-453. doi:10.1177/0143831x13486702
- Kirves, K., Kinnunen, U., De Cuyper, N., & Mäkikangas, A. (2014). Trajectories of perceived employability and their associations with well-being at work: A three-wave study. *Journal of Personnel Psychology*, 13(1), 46-57. doi:10.1027/1866-5888/a000103
- Kristenson, M., Eriksen, H. R., Sluiter, J. K., Starke, D., & Ursin, H. (2004). Psychobiological mechanisms of socioeconomic differences in health. *Social Science & Medicine*, 58(8), 1511-1522. doi:10.1016/s0277-9536(03)00353-8
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1-49. doi:10.1111/j.1744-6570.1996.tb01790.x
- Kristof-Brown, A. L., & Jansen, K. J. (2007). Issues of person-organization fit. In C. Ostroff & T. A. Judge (Eds.), *Perspectives on organizational fit: SIOP organizational frontiers series* (pp. 123–153). New York: Taylor & Francis Group, LLC.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58(2), 281-342.
- Kudo, Y., Satoh, T., Hosoi, K., Miki, T., Watanabe, M., Kido, S., & Aizawa, Y. (2006). Association between intention to stay on the job and job satisfaction among Japanese nurses in small and medium-sized private hospitals. *Journal of Occupational Health*, 48(6), 504-513. doi:10.1539/joh.48.504
- Kuron, L. K. J., Schweitzer, L., Lyons, S., & Ng, E. S. W. (2016). Career profiles in the "new career": Evidence of their prevalence and correlates. *Career Development International*, 21(4), 355-377. doi:10.1108/cdi-05-2015-0066
- Lawrence, S., Hall, D., T., & Arthur, M. B. (2015). Sustainable careers then and now. In A. De Vos & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 432-439). Cheltenham: Edward Elgar.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company.
- Leijon, O., Balliu, N., Lundin, A., Vaez, M., Kjellberg, K., & Hemmingsson, T. (2017). Effects of psychosocial work factors and psychological distress on self-assessed work ability: A 7-year follow-up in a general working population.

- American Journal of Industrial Medicine*, 60(1), 121-130. doi:10.1002/ajim.22670
- Lin, Y.-c. (2015). Are you a protean talent? The influence of protean career attitude, learning-goal orientation and perceived internal and external employability. *Career Development International*, 20(7), 753-772. doi:10.1108/cdi-04-2015-0056
- Lobene, E. V., Meade, A. W., & Pond, S. B., 3rd. (2015). Perceived overqualification: A multi-source investigation of psychological predisposition and contextual triggers. *The Journal of Psychology*, 149(7), 684-710. doi:10.1080/00223980.2014.967654
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705-717. doi:10.1037/0003-066x.57.9.705
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set point for life satisfaction. *Psychological Science*, 15(1), 8-13. doi:10.1111/j.0963-7214.2004.01501002.x
- Lundberg, O., & Manderbacka, K. (1996). Assessing reliability of a measure of self-rated health. *Scandinavian Journal of Social Medicine*, 24(3), 218-224. doi:10.1177/140349489602400314
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541-572. doi:10.1111/j.1744-6570.2007.00083.x
- Magnusson Hanson, L. L., Leineweber, C., Persson, V., Hyde, M., Theorell, T., & Westerlund, H. (2018). Cohort profile: The Swedish longitudinal occupational survey of health (SLOSH). *International Journal of Epidemiology, Advanced online publication*. doi:10.1093/ije/dyx260
- Magnusson Hanson, L. L., Westerlund, H., Leineweber, C., Rugulies, R., Osika, W., Theorell, T., & Bech, P. (2014). The symptom checklist-core depression (SCL-CD6) scale: Psychometric properties of a brief six item scale for the assessment of depression. *Scandinavian Journal of Public Health*, 42(1), 82-88. doi:10.1177/1403494813500591
- Maier, S. F., & Seligman, M. E. P. (1976). Learned helplessness: Theory and evidence. *Journal of Experimental Psychology: General*, 105(1), 3-46.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227-239.
- Mavaddat, N., Kinmonth, A. L., Sanderson, S., Surtees, P., Bingham, S., & Khaw, K. T. (2011). What determines self-rated health (SRH)? A cross-sectional study of sf-36 health domains in the Epic-Norfolk cohort. *Journal of Epidemiology and Community Health*, 65(9), 800-806. doi:10.1136/jech.2009.090845
- Maynard, D. C., Joseph, T. A., & Maynard, A. M. (2006). Underemployment, job attitudes, and turnover intentions. *Journal of Organizational Behavior*, 27(4), 509-536. doi:10.1002/job.389
- Mayrhofer, W., Meyer, M., & Steyrer, J. (2007). Contextual issues in the study of careers. In H. Gunz & M. Peiperl (Eds.), *Handbook of Career Studies* (pp. 215-240). Thousand Oaks: SAGE Publications, Inc.

- McArdle, S., Lea, W., Briscoe, J. P., & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, *71*(2), 247-264. doi:10.1016/j.jvb.2007.06.003
- McGonagle, A. K., Fisher, G. G., Barnes-Farrell, J. L., & Grosch, J. W. (2015). Individual and work factors related to perceived work ability and labor force outcomes. *Journal of Applied Psychology*, *100*(2), 376-398. doi:10.1037/a0037974
- McGuinness, S., & Wooden, M. (2009). Overskilling, job insecurity, and career mobility. *Industrial Relations*, *48*(2), 265-286. doi:10.1111/j.1468-232X.2009.00557.x
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61-89. doi:10.1016/1053-4822(91)90011-Z
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a 3-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538-551. doi:10.1037/0021-9010.78.4.538
- Meyer, J. P., Stanley, L. J., & Parfyonova, N. M. (2012). Employee commitment in context: The nature and implication of commitment profiles. *Journal of Vocational Behavior*, *80*(1), 1-16. doi:10.1016/j.jvb.2011.07.002
- Miller, L., & Hayward, R. (2006). New jobs, old occupational stereotypes: gender and jobs in the new economy. *Journal of Education and Work*, *19*(1), 67-93. doi:10.1080/13639080500523000
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, *44*(6), 1102-1121. doi:10.2307/3069391
- Monteiro, M. S., Ilmarinen, J., & Correa, H. R. (2006). Work ability of workers in different age groups in a public health institution in Brazil. *International Journal of Occupational Safety and Ergonomics*, *12*(4), 417-427. doi:10.1080/10803548.2006.11076703
- Muhonen, T. (2010). Feeling double locked-in at work: Implications for health and job satisfaction among municipal employees. *Work*, *37*(2), 199-204. doi:10.3233/WOR-2010-1070
- Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Mäkikangas, A., De Cuyper, N., Mauno, S., & Kinnunen, U. (2013). A longitudinal person-centred view on perceived employability: The role of job insecurity. *European Journal of Work and Organizational Psychology*, *22*(4), 490-503. doi:10.1080/1359432x.2012.665230
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, *58*(2), 367-408. doi:10.1111/j.1744-6570.2005.00515.x
- Ng, T. W. H., & Feldman, D. C. (2007). Organizational embeddedness and occupational embeddedness across career stages. *Journal of Vocational Behavior*, *70*(2), 336-351. doi:10.1016/j.jvb.2006.10.002
- Ng, T. W. H., & Feldman, D. C. (2008). The relationship of age to ten dimensions of job performance. *Journal of Applied Psychology*, *93*(2), 392-423. doi:10.1037/0021-9010.93.2.392

- Ng, T. W. H., & Feldman, D. C. (2010). The relationships of age with job attitudes: A meta-analysis. *Personnel Psychology*, *63*(3), 677-718. doi:10.1111/j.1744-6570.2010.01184.x
- Ng, T. W. H., & Feldman, D. C. (2012). Evaluating six common stereotypes about older workers with meta-analytical data. *Personnel Psychology*, *65*(4), 821-858. doi:10.1111/peps.12003
- Ngo, H.-y., Liu, H., & Cheung, F. (2017). Perceived employability of Hong Kong employees: Its antecedents, moderator and outcomes. *Personnel Review*, *46*(1), 17-35. doi:10.1108/pr-01-2015-0015
- Nilsson, S., & Ekberg, K. (2013). Employability and work ability: Returning to the labour market after long-term absence. *Work*, *44*(4), 449-457. doi:10.3233/WOR-2012-1402
- Oakman, J., & Wells, Y. (2016). Working longer: What is the relationship between person-environment fit and retirement intentions? *Asia Pacific Journal of Human Resources*, *54*(2), 207-229. doi:10.1111/1744-7941.12075
- Odeen, M., Westerlund, H., Theorell, T., Leineweber, C., Eriksen, H. R., & Ursin, H. (2013). Expectancies, socioeconomic status, and self-rated health: Use of the simplified TOMCATS questionnaire. *International Journal of Behavioral Medicine*, *20*(2), 242-251. doi:10.1007/s12529-012-9221-x
- OECD (2014). *Achieving stronger growth by promoting a more-gender-balanced economy. Report prepared for the G20 Labour and Employment Ministerial meeting Melbourne, Australia.* Retrieved from /www.oecd.org/g20/topics/employment-and-social-policy/ILO-IMF-OECD-WBG-Achieving-stronger-growth-by-promoting-a-more-gender-balanced-economy-G20.pdf
- Oh, I.-S., Guay, R. P., Kim, K., Harold, C. M., Lee, J.-H., Heo, C.-G., & Shin, K.-H. (2014). Fit happens globally: A meta-analytic comparison of the relationships of person-environment fit dimensions with work attitudes and performance across East Asia, Europe, and North America. *Personnel Psychology*, *67*(1), 99-152. doi:10.1111/peps.12026
- Ostroff, C., & M., S. (2007). Multiple perspectives of fit across levels of analysis. In C. Ostroff & T. A. Judge (Eds.), *Perspectives on organizational fit: SIOP organizational frontiers series* (pp. 3-69). New York: Taylor & Francis Group, LLC.
- Overmier, J. B., & Seligman, M. E. P. (1967). Effects of inescapable shock upon subsequent escape and avoidance learning. *Journal of Comparative and Physiological Psychology*, *63*, 28-33.
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, *36*(3), 633-662. doi:10.1177/0149206308321554
- Pedulla, D. S. (2016). Penalized or protected? Gender and the consequences of nonstandard and mismatched employment histories. *American Sociological Review*, *81*(2), 262-289. doi:10.1177/0003122416630982
- Ployhart, R., & Bliese, P. (2006). Individual adaptability (I-ADAPT) theory: Conceptualizing the antecedents, consequences, and measurement of individual differences in adaptability. In C. S. Burke, L. G. Pierce, & E. Salas (Eds.),

Understanding adaptability: A prerequisite for effective performance within complex environments (pp. 3-39).

- Podsakoff, P. M., MacKenzie, S. B., Jeong-Yeon, L., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.
- Pruijt, H., & Derogee, P. (2010). Employability and job security, friends or foes? The paradoxical reception of employability in the Netherlands. *Socio-Economic Review, 8*(3), 437-460. doi:10.1093/ser/mwq006
- Quintini, G. (2011a). *Over-qualified or under-skilled: A review of existing literature*. (OECD Social, Employment and Migration Working Papers, No. 121). Paris: OECD Publishing.
- Quintini, G. (2011b). *Right for the job: Over-qualified or under-skilled?* (OECD Social, Employment and Migration Working Papers, No. 121). Paris: OECD Publishing.
- Reichard, R. J., Avey, J. B., Lopez, S., & Dollwet, M. (2013). Having the will and finding the way: A review and meta-analysis of hope at work. *The Journal of Positive Psychology, 8*(4), 292-304. doi:10.1080/17439760.2013.800903
- Reilly, P. A. (1998). Balancing flexibility: Meeting the interests of employer and employee. *European Journal of Work and Organizational Psychology, 7*(1), 7-22. doi:10.1080/135943298398934
- Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior, 75*(2), 152-161. doi:10.1016/j.jvb.2009.05.002
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage Publications.
- Rousseau, D. M. (2005). *I-deals, idiosyncratic deals employees bargain for themselves*. New York, NY: M.E. Sharpe, Inc.
- Rusbult, C. E., Farrell, D., Rogers, G., & Mainous, A. G. (1988). Impact of exchange variables on exit, voice, loyalty, and neglect: An integrative model of responses to declining job-satisfaction. *Academy of Management Journal, 31*(3), 599-627. doi:10.2307/256461
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi:10.1037/0003-066x.55.1.68
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166. doi:10.1146/annurev.psych.52.1.141
- Salthouse, T. (2012). Consequences of age-related cognitive declines. *Annual Review of Psychology, 63*, 201-226. doi:10.1146/annurev-psych-120710-100328
- Scarpello, V., & Campbell, J. P. (1983). Job satisfaction: Are all the parts there? *Personnel Psychology, 36*(3), 577-600. doi:10.1111/j.1744-6570.1983.tb02236.x
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*(3), 219-247.

- Shipp, A. J., & Jansen, K. J. (2011). Reinterpreting time in fit theory: Crafting and recrafting narratives of fit in medias res. *Academy of Management Review*, 36(1), 76-101. doi:10.5465/amr.2009.0077
- Shockley, K. M., & Singla, N. (2011). Reconsidering work-family interactions and satisfaction: A meta-analysis. *Journal of Management*, 37(3), 861-886. doi:10.1177/0149206310394864
- Shockley, K. M., Ureksoy, H., Rodopman, O. B., Poteat, L. F., & Dullaghan, T. R. (2016). Development of a new scale to measure subjective career success: A mixed-methods study. *Journal of Organizational Behavior*, 37(1), 128-153. doi:10.1002/job.2046
- Silla, I., De Cuyper, N., Gracia, F. J., Peiró, J. M., & De Witte, H. (2009). Job insecurity and well-being: Moderation by employability. *Journal of Happiness Studies*, 10(6), 739-751. doi:10.1007/s10902-008-9119-0
- Silla, I., Gracia, F. J., & Peiró, J. M. (2005). Job insecurity and health-related outcomes among different types of temporary workers. *Economic and Industrial Democracy*, 26(1), 89-117. doi:10.1177/0143831x05049404
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13(4), 249-275.
- Spector, P. E. (1994). Using self-report questionnaires in OB research - a comment on the use of a controversial method. *Journal of Organizational Behavior*, 15(5), 385-392. doi:10.1002/job.4030150503
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods*, 9(2), 221-232. doi:10.1177/1094428105284955
- Stanley, L., Vandenberghe, C., Vandenberg, R., & Bentein, K. (2013). Commitment profiles and employee turnover. *Journal of Vocational Behavior*, 82(3), 176-187. doi:10.1016/j.jvb.2013.01.011
- Statistics Sweden (1984). *Socioekonomisk indelning (SEI) [Socio-economic classification]* (MIS 1982:4). Örebro: Statistics Sweden.
- Statistics Sweden (1997). *Undersökning om levnadsförhållanden 1997 [Survey of living conditions 1997]*. Stockholm: Statistics Sweden. Retrieved from https://www.scb.se/contentassets/35da017ddbc3439a932bd8af95c58601/e0101_do_1997.pdf
- Statistics Sweden (2004). *Arbetsmiljön 2003 [The work environment 2003]* (Report No. AM68SM0401). Stockholm: Statistics Sweden. Retrieved from <https://www.av.se/globalassets/filer/statistik/arbetsmiljostatistik-arbetsmiljon-2003-rapport.pdf>
- Statistics Sweden (2010). *Tema: Utbildning; Könstruktur per utbildning och yrke 1990–2030 [Theme: Education; Distribution of sexes by education and profession 1990–2030]*. Stockholm: Statistics Sweden. Retrieved from https://www.scb.se/statistik/_publikationer/uf0521_1990i30_br_a40br1001.pdf
- Statistics Sweden (2018). *Arbetslösheten tog fart under finanskrisen [Unemployment accelerated during the financial crisis]*. Stockholm: Statistics Sweden. Retrieved from <https://www.scb.se/hitta-statistik/sverige-i-siffror/samhallets-ekonomi/arbetslosheten/>

- Sverke, M., Falkenberg, H., Kecklund, G., Magnusson Hanson, L. L., & Lindfors, P. (2016). *Kvinnors och mäns arbetsvillkor: Betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade utfall [Women's and men's working conditions: The importance of organizational factors and psychosocial work environment for work and health related outcomes]*. Arbetsmiljöverket Kunskapssammanställning 2016:2. Stockholm: Elanders Sverige AB.
- Taris, T. W., & Kompier, M. A. J. (2014). Cause and effect: Optimizing the designs of longitudinal studies in occupational health psychology. *Work and Stress*, 28(1), 1-8. doi:10.1080/02678373.2014.878494
- Tuomi, K., Huuhtanen, P., Nykyri, E., & Ilmarinen, J. (2001). Promotion of work ability, the quality of work and retirement. *Occupational Medicine-Oxford*, 51(5), 318-324. doi:10.1093/occmed/51.5.318
- Törnroos, K., Bernhard-Oettel, C., & Leineweber, C. (2017). Perceived employability trajectories: A Swedish cohort study. *Journal of Occupational Health*, 59(4), 336-344. doi:10.1539/joh.16-0295-OA
- Ursin, H., & Eriksen, H. R. (2004). The cognitive activation theory of stress. *Psychoneuroendocrinology*, 29(5), 567-592. doi:10.1016/s0306-4530(03)00091-x
- Ursin, H., & Eriksen, H. R. (2010). Cognitive activation theory of stress (CATS). *Neuroscience and Biobehavioral Reviews*, 34(6), 877-881. doi:10.1016/j.neubiorev.2009.03.001
- Van Dam, K. (2013). Employee adaptability to change at work: A multidimensional, resource-based framework. In S. Oreg, A. Michel, & R. T. By (Eds.), *The psychology of organizational change* (pp. 123-142): Cambridge University Press, New York.
- Van Dam, K., Bipp, T., & Van Ruysseveldt, J. (2015). The role of employee adaptability, goal striving and proactivity for sustainable careers. In A. De Vos & B. Van der Heijden (Eds.), *Handbook of research on sustainable careers* (pp. 190-204). Cheltenham: Edward Elgar.
- van den Berg, T. I. J., Elders, L. A. M., de Zwart, B. C. H., & Burdorf, A. (2009). The effects of work-related and individual factors on the work ability index: A systematic review. *Occupational and Environmental Medicine*, 66(4), 211-220. doi:10.1136/oem.2008.039883
- Van den Broeck, A., De Cuyper, N., Baillien, E., Vanbelle, E., Vanhercke, D., & De Witte, H. (2014). Perception of organization's value support and perceived employability: Insights from self-determination theory. *International Journal of Human Resource Management*, 25(13), 1904-1918. doi:10.1080/09585192.2013.860385
- van der Heijden, B. (2001). Age and assessments of professional expertise: The relationship between higher level employees' age and self-assessments or, supervisor ratings of professional expertise. *International Journal of Selection and Assessment*, 9(4), 309-324. doi:10.1111/1468-2389.00183
- van Eekelen, B. (2015). Knowledge for the West, production for the rest? *Journal of Cultural Economy*, 8(4), 479-500. doi:10.1080/17530350.2014.909367

- van Ham, M., Mulder, C. H., & Hooimeijer, P. (2016). Local underemployment and the discouraged worker effect. *Urban Studies*, 38(10), 1733-1751. doi:10.1080/00420980120084831
- Vanhercke, D., De Cuyper, N., Peeters, E., & De Witte, H. (2014). Defining perceived employability: A psychological approach. *Personnel Review*, 43(4), 592-605. doi:10.1108/pr-07-2012-0110
- Vanhercke, D., Kirves, K., De Cuyper, N., Verbruggen, M., Forrier, A., & De Witte, H. (2015). Perceived employability and psychological functioning framed by gain and loss cycles. *Career Development International*, 20(2), 179-198. doi:10.1108/cdi-12-2014-0160
- Veld, M., Semeijn, J. H., & van Vuuren, T. (2016). Career control, career dialogue and managerial position. *Career Development International*, 21(7), 697-712. doi:10.1108/cdi-04-2016-0047
- Virtanen, P., Hammarstrom, A., & Janlert, U. (2016). Children of boom and recession and the scars to the mental health: A comparative study on the long term effects of youth unemployment. *International Journal for Equity in Health*, 15, 14. doi:10.1186/s12939-016-0305-0
- von Bonsdorff, M. B., Seitsamo, J., Ilmarinen, J., Nygård, C.-H., von Bonsdorff, M. E., & Rantanen, T. (2011). Work ability in midlife as a predictor of mortality and disability in later life: A 28-year prospective follow-up study. *Canadian Medical Association Journal*, 183(4), E235-E242. doi:10.1503/cmaj.100713
- Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.
- 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), 273-286. doi:10.1037/a0025584
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82(2), 247-252.
- Weeden, K. A., & Grusky, D. B. (2005). The case for a new class map. *American Journal of Sociology*, 111(1), 141-212. doi:10.1086/428815
- Wheeler, A. R., Gallagher, V. C., Brouer, R. L., & Sablinski, C. J. (2007). When person-organization (mis)fit and (dis)satisfaction lead to turnover: The moderating role of perceived job mobility. *Journal of Managerial Psychology*, 22(2), 203-219. doi:10.1108/02683940710726447
- WHO Media centre (2016). Mental health: Strengthening our response. Retrieved from <http://www.who.int/mediacentre/factsheets/fs220/en/>
- Wittchen, H. U., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jönsson, B., . . . Steinhausen, H. C. (2011). The size and burden of mental disorders and other disorders of the brain in Europe 2010. *European Neuropsychopharmacology*, 21(9), 655-679. doi:10.1016/j.euroneuro.2011.07.018
- Wittekind, A., Raeder, S., & Grote, G. (2010). A longitudinal study of determinants of perceived employability. *Journal of Organizational Behavior*, 31(4), 566-586. doi:10.1002/job.646
- Wrosch, C., Scheier, M. F., Carver, C. S., & Schulz, R. (2003). The Importance of Goal Disengagement in Adaptive Self-Regulation: When Giving Up is Beneficial. *Self and Identity*, 2(1), 1-20. doi:10.1080/15298860309021

- Wrosch, C., Scheier, M. F., Miller, G. E., Schulz, R., & Carver, C. S. (2003). Adaptive self-regulation of unattainable goals: Goal disengagement, goal reengagement, and subjective well-being. *Personality & Social Psychology Bulletin*, 29(12), 1494-1508. doi:10.1177/0146167203256921
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, 33(5), 774-800. doi:10.1177/0149206307305562
- Yu, K. Y. (2009). Affective influences in person-environment fit theory: exploring the role of affect as both cause and outcome of P-E fit. *Journal of Applied Psychology*, 94(5), 1210-1226. doi:10.1037/a0016403
- Zimmerman, R. D., & Darnold, T. C. (2009). The impact of job performance on employee turnover intentions and the voluntary turnover process: A meta-analysis and path model. *Personnel Review*, 38(2), 142-158. doi:10.1108/00483480910931316