# Coping with the threat of potential job loss

Exploring different strategies to cope with job insecurity and its consequences



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## **Abstract**

The purpose of this study was to provide insight into the role coping mechanisms can play in influencing the negative outcomes of job insecurity and job insecurity itself. In a society where flexibility is getting increasingly important and people are not certain of having and retaining a job anymore, insecurity increases. People are trying to find ways to deal with this phenomenon and thereby to assure their future. This thesis investigates whether coping mechanisms, like being employable or getting social support, can help in diminishing the effects of this emerging job insecurity. Using data from the European Working Conditions Survey, multiple regression analyses were performed to test the influence of coping mechanisms. The results indicate that especially employability important source in coping with the negative outcomes of job insecurity.

**Key Words:** Coping Mechanisms, Job Insecurity, Employability, Social Support, Negative Outcomes, Stress, Health Problems

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#### 1. Introduction

Working life has changed dramatically over the past decades (Howard, 1995; Pfeffer, 1998 in Sverke, Hellgren & Näswall, 2006). Companies seem to have two options to become more lucrative (Cascio, 1998). They can either increase their gains or decrease their costs. Decreasing the costs often means reducing the number of their employees. To ensure their economic survival many companies have chosen the latter option. These structural changes in organizations made people doubt the stability of their working situation (Greenhalgh, 1984). As a result, job insecurity has emerged as one of the most important issues in contemporary work life, and the phenomenon of job insecurity has consequently become more frequently studied among scholars and researchers (Sverke, Hellgren & Näswall, 2002).

In the Netherlands, especially since the economic recession of 2008, job security and employment have been main focus points of politics. Minister Asscher of Social Affairs and Employment is trying to establish social attention for this problem. In a letter to the Dutch parliament he states that one third of absenteeism at work in the Netherlands is a consequence of work stress ("Werkstress beroepsziekte nummer 1", 2013). This stress can be caused by several problems at work, one of which is also job insecurity. Other research shows that job insecurity can lead to higher health risks for employees (König, 2011). These stress and health problems can be interpreted as negative consequences of job insecurity. Due to the problematic nature of these consequences a need for coping strategies arises. But what can be done to prevent or decrease job insecurity and its consequences?

According to Heany, Price and Rafferty (1995), coping mechanisms may directly or indirectly positively affect an employees' mental and physical health. By finding out if coping mechanisms as could be of positive influence, this research can be of help in gaining new insights which employees can use to strengthen their market position and organizations can use to form new policies concerning job security. The dataset used in this research is more extensive than any previous and comparable research done in this field. Not only will job insecurity and its negative outcomes be examined, but also the underlying factors will be taken into account. This will help to create a better understanding of how coping mechanisms work.

It is of social relevance to try and find answers to this question. Decreasing job insecurity can have positive effects on personal well-being since it leads to less stress- and health related problems. Furthermore, gaining insight in these problems and consequences and finding a way to decrease them, could also improve general well-being of the society as a whole. Finally, being uncertain of employment also has economic consequences (Petrin & Sivadasan, 2006). People who

might lose their job in the near future are at the risk of losing their income which results in becoming unable to contribute to the national economy.

Over the years many research has been done on job insecurity as an important emerging phenomenon. However, little research has shed light on which factors could fight this phenomenon and which mechanisms could possibly help in fighting job insecurity and its consequences. Here lies the scientific relevance of this research. The goal of this research is to find more evidence and explanations for the possible mechanisms that reduce the negative outcomes of job insecurity.

The field of Sociology has always been concerned with the study of work (Watson, 2012). The interest in this field originates from work being a major part of people's lives. Changes in the way work is organized have caused major societal shifts. With the emergence of industrialization and the rise of capitalism, societies have not only undergone changes in organizational levels, but also as a society. Nowadays, we are at a turning point and are moving to the development of a post-capitalistic society. In contemporary society people are increasingly expected to be flexible and to offer a wide range of skills and knowledge. In the modern capitalist world we currently live in, organizations who want to attain a strong position in society and compete with their rivals, require to be adaptive and responsive (Watson, 2012). They therefore need flexible labor agreements and flexible employees, which has caused a increase in job security.

Job insecurity and the associated negative outcomes ask for sources or strategies to challenge and to cope with these undesirable phenomenon's. Consequently, in this research an answer will tried to be found to the following research question: "how do coping mechanisms influence the negative consequences of job insecurity?"

To be able to find an answer to this question, the research question will be divided in several sub questions. These sub questions are as follows: (1) what are the consequences of job insecurity? (2) which mechanisms are used to cope with job insecurity? and (3) what are the direct and indirect influences of coping mechanisms on the negative outcomes of job insecurity?

To obtain a broad insight in these matters interdisciplinary research findings and theories from Human Resource studies, Organizational Sociology, Psychology of work, stress and health studies and Labor Economics will be combined. Investigating if job insecurity has negative effects on people's mental and physical well-being will be the first step. In order to assess whether the negative outcomes of job insecurity can be reduced, possible coping mechanisms have to be identified. Lastly, finding out how and if these coping mechanisms work is important to gain insight in the relation between the negative consequences of job insecurity and possible coping mechanisms.

Next, previous findings of other research will be discussed. These will be used to formulate the hypotheses tested in this research. Then, the methods will be outlined. To find answers to the research questions, the longitudinal Dataset of European Survey on Working Conditions will be used. For a complete image of the phenomenon and an increase in the generalizability, data from different regions in Europe will be included and combined. Multiple regression analyses will be performed to investigate and comprehend the relations between the different variables. Following, the results from the statistical analyses will be discussed. Lastly, the conclusion and discussion will reflect and elaborate on the current research findings.

## 2. Theory

In this theory section the elements that will be investigated will be further explained and defined. Additionally, the hypotheses used to find the answers to the research question will be introduced. For a schematic overview of all the hypotheses formulated and tested in this research see figure 1 (p. 14). The aim of this study is to contribute to previous studies on the impact of job insecurity on employees' well-being, and to investigate the possible mediating or interacting roles coping mechanisms could play in this relation. Also, possible coping mechanisms will be described in the following sections. Then, it will be discussed if and how these mechanisms are of influence on the negative outcomes of job insecurity. Lastly, it will be further investigated how these three concepts (job insecurity, coping mechanisms and negative outcomes) relate to one another.

## 2.1 Job Insecurity

To be able to get a better understanding of the term job insecurity, first the uncertainty is considered on a broader scale. Namely, uncertainty can be explained as an individual's fear of powerlessness and the unability to control the effects of someone else's choices or decisions (Milliken, 1987). Also in the work related sphere people can experience uncertainties. Greenhalgh and Rosenblatt (1984) were amid the first researchers to pay closer attention to the meaning, origin and possible outcomes of job insecurity.

In the past, multiple researchers have aimed to define the concept of job insecurity. According to several scholars, job insecurity can be described as "the employees' perceptions about potential involuntary job loss" (de Witte, 1999, Greenhalgh & Rosenblatt, 1984; Sverke, Hellgren, & Näswall, 2002; Van Vuuren, 1990). Greenhalgh and Rosenblatt defined job insecurity as a "perceived powerlessness to maintain desired continuity in a threatened job situation" (1984, p.

438). Furthermore, they stated that this perceived powerlessness and lack of control is highly important to understand employees' reactions to experienced job insecurity.

In the behavioral sciences the definition of job insecurity is constructed out of two important assumptions: (1) job insecurity is based on individual and subjective perceptions, and (2) job insecurity consists of fear for unfavorable changes in the current job situation (Sverke, Hellgren & Näswall, 2006).

## 2.2 Consequences of job insecurity

Over the past years, many studies have been conducted on the relationship between job insecurity and its outcomes. Researchers found that job insecurity often results in decreased psychological well-being of employees (Hartley, van Vuuren, Klandermans & Jacobson, 1991).

Job insecurity developed as one of the most important work stressors and causes feelings of not being in control of a situation and a sense of powerlessness, contributing to a diminishing well-being of the employee (de Witte, 1999, Cheng et al., 2005; Jacobson 1991). Furthermore, it can cause complaints concerning one's health (Berntson & Marklund, 2007). Employees' reactions to perceived job insecurity can lead to essential health and behavior consequences (Davy, Kinicki and Scheck, 1991; Hellgren & Chirumbolo, 2003). Workers can be predicted to have more negative reactions to job insecurity when they consider themselves as fragile in their job and unable to change the situation for the better (Probst, 2005).

Taking previous longitudinal studies into account (Carayon, 1993; Spector, Chen & O'Connell, 2000), work stressors like job insecurity can have a serious impact on employees' general health in the long run. Therefore, health problems are acknowledged negative outcomes of job insecurity (Schreurs et al., 2010). Previous studies showing a substantial negative impact of job insecurity on mental health are confirmed (Green, 2011).

After considering these empirical studies on job insecurity and its consequences, one may conclude that, in general, most consequences are expressed in terms of diminished well-being in forms of health problems and experienced stress. However, not all empirical studies are unilateral on this topic. Some argue that differences in reactions to job insecurity can be ascribed to individual differences (Sverke, Hellgren & Näswall, 2002). In this paper health problems or poorer well-being will be defined as experienced physical health complaints and experienced stress (Ashford et al., 1989; Barling & Kelloway, 1996; Hartley et al., 1991; Jick, 1985).

After explaining job insecurity and its possible consequences, the potential explanations for the negative consequences of job insecurity will be considered. One theory that helps in explaining these consequences is the Psychological Contract Theory, developed by Rousseau (1995). This theory holds that by means of a psychological contract between employee and employer there are

reciprocal commitments; the employer offers security in exchange for loyalty of the part of the employee. When an employee perceives job insecurity, he or she can encounter this as an encroach on the psychological contract between employee en its employer (de Cuyper & de Witte, 2008). By breaking the psychological contract, the employer confounds the employees' trust, which results in mental distress because of the 'betrayal'.

As stated earlier, job insecurity can result in perceived lack of control and feelings of powerlessness and can lead to further health problems in the long run. These consequences can possibly be explained by the Latent Deprivation Model, expanded by Jahoda (1982). This model shows an individual's needs, of which some are aspects of employment; like building a network, making money and a chance to develop oneself. Job insecurity threatens the continuation of being able to fulfill these needs, and is therefore perceived as a serious hazard. It pressures the employee to prevent to lose one's job.

As was showed in multiple studies and several theories, job insecurity often leads to negative outcomes, especially in forms of the employee's well-being. Thus, one can assume that there is a negative relationship between job and the negative outcomes of job insecurity, which leads to the following hypothesis (H1): 'more perceived job insecurity leads to a) more stress, and b) more health problems.

## 2.3 Coping mechanisms

The manner in which an employee will respond to stressful and negative situations, which can be a result of job insecurity, depends on the available resources they can cope with (Heany, Price & Rafferty, 1995). In order to cope with these negative outcomes of job insecurity, theorists have indicated several mechanisms. Two coping mechanisms that have received much attention are employability and social support. On the account of the fact that most studies and research on coping mechanisms focus on these two strategies, closer attention will be paid in this study to the possible working of these two mechanisms.

## 3.1 Employability

In contrast to job insecurity, there is not one obvious definition for employability. However, many researchers do approach employability as the concept of a worker's possibility to find another job (Forrier & Sels, 2003). Others approach employability with a more subjective aspect, which means they consider employability as a worker's *perceived* possibility to find another job (Berntson & Marklund, 2007; de Cuyper et al., 2008). To increase this possibility, people try to improve their working skills, personal skills, knowledge of the labor market or adaptability to organizational changes (Defillipi & Arthur, 1994; De Grip et al., 2004; de Vries et al., 2001).

The employability of workers is not only important for the employees themselves, but also for their employer. Employable workers are more likely to easily find another job when they decide they want to leave the organization or experience job insecurity. Also, the more employable workers are in turn more valuable for employers, and they would not want to lose good workers as such (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991).

Job insecurity and employability are two concepts that are often mentioned together (Sverke & Hellgren, 2002). Greenhalgh and Rosenblatt (1984) were the first to propose employability as a possible moderator. Other researchers and academics used this proposal to further explore the possible contribution of employability, and stated that employability can function as a helpful coping mechanism against job insecurity or its unwanted negative outcomes (Sverke & Hellgren, 2002). Also, de Cuyper et al. (2008) stated that employability is an important coping mechanism for job insecurity and helps employees in maintaining their well-being. De Vries, Gründemann & van Vuuren (2001) state that employability may affect employees in a positive way. Workers try to ensure their job position by keeping themselves employable (de Cuyper et al., 2008).

Researchers name several reasons which indicate the possible positive impact of employability. Being employable makes employees feel like they are in control of their career. This feeling of control results in more confidence and better well-being (Fugate, Kinicki, & Ashforth, 2004; Marler, Barringer, & Milkovich, 2002). According to Berntson and colleagues, being employable makes people less scared of losing one's job (Berntson, Bernhard-Oettel & de Cuyper, 2007; Berntson & Marklund, 2007). This because employees feel like they are having more alternative options in case they lose their job or become unemployed. They are more secure of being able to find another job because of their employability. Since employees can establish more self-esteem as a result of being employable, this might on one hand diminish their perceived job insecurity, but on the other hand might more self-confidence also directly result in less perceived stress and health complaints because they are not worried about the situation anymore, even though it does not necessarily first diminishes the actual threat of losing one's job. Therefore, it is expected that (H2): 'employability leads to a) less stress and to b) less health problems'.

People who perceive themselves as employable and are less insecure about their job, will less likely get fired by their employer because they are more committed and loyal to the organization they are working for than people who think of themselves as less employable (Sverke, Hellgren & Näswall, 2002). In that sense employability fortifies someone's position in the organization.

Theories on labor market use, such as the Flexible Firm Model (Atkinson, 1984) or the Dual Labour Market Theory (Doeringer & Piore, 1971) both argue that employers will offer permanent jobs and more security to workers who they consider most valuable to their organization. The

reason they are considered of high value to their organization is because often these workers are highly employable and possess up to date skills. These employees will easily be able to find another job if they would lose their present job. However, the highest employable employees are also the workers an employer prefers to keep within the organization.

Employability has shown to be often leading to less perceived job insecurity and therefore will indirectly increase employees' well-being. This leads to the assumption that more employability decreases negative outcomes because of less experienced job insecurity. The third hypothesis therefore expects (H3): 'more employability leads to a) less stress and to b) less health problems, through reduced perceived job insecurity'.

## 2.3.1.1. Interaction between Employability and Job Insecurity

Workers, or employees, can vary in both their perceived job insecurity and their perceived employability. Employability is said to be a strong moderator between the effects of job insecurity on mental health (Barling & Kelloway, 1996; Green, 2011). To what degree the perceived job insecurity can decrease mental en physical well-being can be affected by the employability of workers. Greenhalgh en Rosenblatt (1984) proposed that people who were more employable worried less about the possibility of losing their current job since they were confident of being able to find a new job easily. This is in contrast to less employable employees, who were convinced of their dependency on their current employer since they were more insecure of being able to find another job, in case they would lose their current one. That is why the latter will be more likely to experience job insecurity as a serious threat than the former. In opposition to employable workers, there are some employees who do not possess skills or up to date knowledge and therefore feel more insecure about the stability of their job (Griffeth et al., 2005). Because of their perceived low employability, employees become more dependent on their current employer, even though the likeliness of staying at a single job for a lifetime has decreased. These factors combined may cause these employees to feel higher job insecurity and in turn poorer well-being than employees with higher employability (de Witte, 1999). This is an example of how these factors might amplify each other.

To test whether for employable employees job insecurity has fewer negative outcomes than for unemployable employees another hypothesis was constructed. Building on the hypotheses stated earlier in this section, it is expected that (H4): 'for people who are employable, job insecurity has a smaller impact on a) stress and on b) health problems than for people who are not employable'.

#### 2.3.2 Social Support

The second mechanism that is considered as a possible coping source is social support. This can be

helpful in diminishing experienced stress in times of job insecurity (Lazarus & Folkman, 1984). There are several sources of social support, one of which is union membership (Armstrong-Stassen, 1993; Dekker & Schaufeli, 1995). Research findings show that union members in general often experience less job insecurity than non-members (Sverke et al., 2004). Some researchers even claim that without unions employees will not be able to cope with their job insecurity (Dekker & Schaufeli, 1995). By being a member of a union, employees are feeling supported and protected against possible organizational changes resulting in negative consequences for the employee. Unions are often powerful institutions, that can practice control over employers.

Up until now, only a handful of studies have been conducted on this topic, so no definite conclusions on the role of union membership can be made. Nevertheless, there are indications that social support in the form of union membership may be a helpful mechanism in supporting employees in their job insecurity, and may even decrease these feelings of job insecurity and its associated negative consequences. This brings us to our fifth hypothesis in this study, that (H5): 'more social support leads to a) less stress and to b) less health problems.'

By increasing self-esteem and creating a feeling of being supported, social support can directly positively influence stress and work-related health problems (Heller, Swindle & Dusenbury, 1986). Furthermore, Thoits (1986) provides an explanation for the positive effect of social support on negative outcomes in that it distracts the employee from the source of the negative outcomes and strengthening the employee by helping how to cope with the problem. Also, through social support employees might be better able to deal with stressful situations – like perceived job insecurity – because they gained more confidence and sense of being supported (Thoits, 1986). Additionally, Lim (1996) found that getting support at the workplace helps employees in modifying negative situations such as job insecurity.

In view of that social support is said to reduce peoples' feelings of job insecurity, and since less job insecurity plausibly leads to better health, one may assume that social support improves peoples' mental and physical well-being. This leads to the fifth hypothesis, which implies that (H6): 'social support leads to a) less stress and to b) less health problems, through reduced perceived job insecurity'.

## 2.3.2.1 Interaction between Social Support and Job Insecurity

Little research has been conducted on how social support and job insecurity interact in explaining the mental and physical well-being of workers. There is, however, reason to investigate such an interaction similar to the paragraph on the interacting effect of employability and job insecurity. Following the explanations stated earlier in this section, low social support should lead to more perceived job insecurity which in turn leads to more negative outcomes. Both job insecurity and social support display a certain insecurity. This insecurity directly affects one's self-esteem and confidence, which is proved to be an important factor in work-related stress and health problems (Heller, Swindle & Dusenbury, 1986; Thoits, 1986). Feeling both unsupported and insecure might interact and increasingly contribute to the negative outcome on one's well-being.

On the other hand, experiencing strong social support might decrease the negative outcomes of job insecurity because employees feel that they have someone to turn to if they experience a direct threat in their job continuity (Thoits, 1986). This perceived support might not decrease the job insecurity itself (i.e. the chance that they lose their job) but it could help in diminishing feelings of stress and other health problems.

To test whether for socially supported people job insecurity has fewer negative outcomes than for people who experience little or no social support, another hypothesis was constructed. Building on the hypotheses stated earlier in this section, this last hypothesis can be formulated considering a possible interaction effect of coping mechanisms on the relationship between job insecurity and its negative consequences; (H7): 'for people with social support, job insecurity has a smaller impact on a) stress and on b) health problems than for people with no social support.'

## 2.4 Control Variables

Other social factors might conduce in explaining the negative outcomes of job insecurity. Therefore the following variables were included in the statistical tests to enlarge the area of support for the findings in this study.

The first of these other possibly important factors is the type of contract an employee has. The type of contract an employee is working under might be an important indicator of perceived job insecurity (de Cuyper & de Witte, 2006). A fixed term or a temporary contract could indicate more insecurity than an indefinite contract. Therefore this variable was considered to be an important control variable, since it might influence the relation between the coping mechanisms, job insecurity and its negative outcomes.

The type of contract might provide another explanation for job insecurity and the negative outcomes of job insecurity (de Cuyper & de Witte, 2006). People with a fixed term contract or a temporary contract possibly experience more job insecurity than people with an indefinite contract. Maybe workers with a temporary contract are highly insecure about the continuation of their job, despite the fact that they might have been very employable.

Furthermore, it is biologically determined that in general women experience more stress in their lives than men (McDonough & Walters, 2001). Therefore a possible explanation for experienced stress might be addressed to sex.

Also, studies have documented that people with low incomes more often suffer from health complaints, both mental and physical (Ettner, 1996). Uncertainty about job stability might also be more persistent among low-income workers.

As people are getting older, the functioning of the body deteriorates and health complaints will expand (Wensing, Vingerhoets & Grol, 2001). Where the young employees might easily cope with organizational uncertainties and job insecurity, older employees might physically react stronger to these with increased feelings of stress and more health problems.

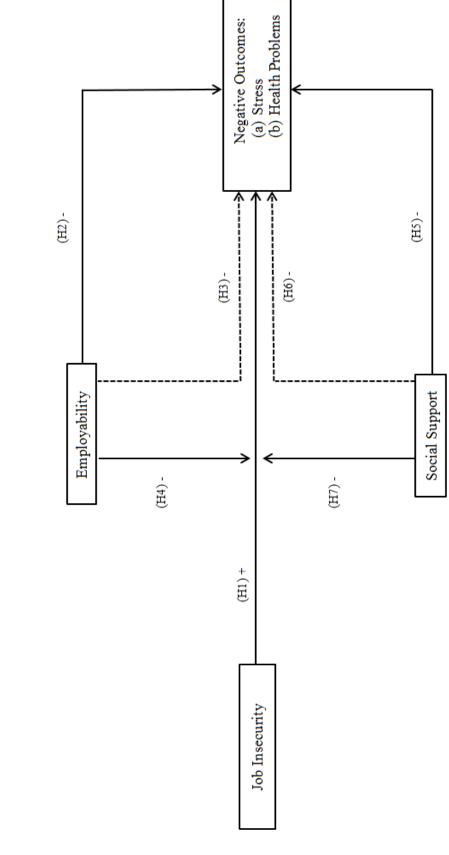


Figure 1. Survey of Hypotheses

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In

Indirect effect -------

Direct effect

#### 3. Method

In this study the dataset of European Working Condition Surveys was used. This survey was first conducted in 1990, after which it was repeated every five years. In this study only the data of the last survey (2010) was used. These data are particularly of importance because of the economic crisis that started in 2008 and the recently strongly developed culture of flexible working conditions. The respondents consisted of the working population throughout Europe, aged 15 years and older. 43 816 employees were interviewed between January and June 2010. Most of the samples were tested by interviewing the respondents individually by means of a questionnaire. This questionnaire was developed to provide an overview of the general working conditions throughout Europe, such as the general job context, work-related health risks, cognitive and psychological factors, and other topics (5<sup>th</sup> EWCS, 2010). To be able to test the hypotheses, the concepts of job insecurity, negative outcomes, employability and social support were defined more specifically.

## 3.1. Sampling

## 3.1.1 The Dataset

From over 34 countries in Europe, being the EU27<sup>1</sup>, Norway, Turkey, Croatia, Kosovo, the former Yugoslav Republic of Macedonia, Albania and Montenegro. Eventually, a number of 43 816 workers were interviewed. The targets were all inhabitants of these countries, aged 15 years and older (16 or older in Norway, the UK and Spain), who were employed and resident in the country where the survey was conducted. The respondents were considered as employed when he or she has worked for at least one hour during the reference week (5<sup>th</sup> EWCS, 2010).

To ensure that the sample would be representative, different steps were taken. First, households and individuals were selected using a random sampling procedure (Gallup, 2010). In each country, geographic strata proportionately to the number of persons in employment determined the sample. Then, a scientific sampling strategy was used to enclose the selection probability for any individual included in the study. The sample was selected by random probability (Gallup, 2010). All members of the statistical population had a known non-zero probability of inclusion in the sample, which means that for all employed people and people that are aged 15 or above there is a probability that they will be included in the sample of possible respondents. After this process an enumeration phase followed. The aim of this phase was to conduct a sample of addresses by

<sup>&</sup>lt;sup>1</sup> EU27 consists of Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Greece, Spain, France, Ireland, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom.

gathering the exact address information for the sampled areas. This information was collected by qualified and well-trained individuals.

When this data list was generated, interviewers visited the individuals in the households chosen by the sample. They brought an introduction letter for the possible respondent which explained the goal of the research and the content of the interview. In each of these households, one individual who satisfied the criteria - 15 years or older and employed in the reference week - was selected by a screener questionnaire. In all countries (except for Sweden and Norway) a face to face visit was the standard contacting form to get an individual to cooperate in the study.

#### 3.1.2 How the dataset was used in this research

The first criterion for inclusion in the dataset for this research was to include only workers who worked for an employer. Since this paper focuses on the possible difference employability or social support can make within the context of an organization, it is not of relevance to look at how self-employed people experience job insecurity. Their perceived job insecurity probably stems from another source than was investigated in this research, which focuses on the influence that coping mechanisms can have on their working experience and their perceived job insecurity. The perceived job insecurity in this study is mainly derived from a situation created by the employer. That is why in this paper it is primarily of importance to focus on the people who are employed and are working for an employer. Therefore, only employed people are included in the analyses.

In the questionnaire the respondents were asked how they were employed (Q6): "Are you mainly...", (1) self-employed without employees, (2) self-employed with employees. (3) employed, or, (4) other. In this research only the respondents who answered to be (3) employed, were selected and used in the performed statistical tests. The remaining categories were excluded from the data.

#### 3.2 Measurements

Next, it is explained how the concepts that are used for the analyses were measured or manipulated. Therefore, it was clarified how job insecurity, the negative outcomes, employability and social support were entered in the data. To get a clear comprehension of the concepts, multiple questions from the questionnaire were merged to create one or multiple variables that can measure the concept. Appendix 1 provides a table of all selected variables and questions from the questionnaire and combined variables that hold the definitions and abstract phenomenon's used in this thesis.

#### 3.2.1 *Job insecurity*

As Sverke, Hellgren and Näswall (2006) stated, job insecurity is based on individual and subjective perceptions. That is why in this study job insecurity was measured by the respondents' perception

of the condition of their situation. The concept of job insecurity was measured by a single ordinal item (see appendix 1). People were asked whether they agreed with the following statement: "I might lose my job in the next six months". The answer categories they could choose from were (5) strongly agree, (4) agree, (3) neither agree nor disagree, (2) disagree and, (1) strongly disagree. People who responded that they highly agreed or agreed are insecure about the continuation of their employment and this was interpreted as high perceived job insecurity.

## 3.2.2 Negative outcomes - stress and health problems

The psychological and physiological problems of individuals are in this study interpreted as stress or as health problems. These two main problems together form the concept of 'negative outcomes'. On account of the fact that there are many different indicators for health problems and poor well-being, the concepts consist of multiple variables. A factor analysis and Crombach's Alpha were both used to test whether the two variables could constructed into one new variable representing 'the negative outcomes', but both scores were too low and indicated that this was not possible. Therefore it was decided to use two dependent variables to be able to test the hypothesis as good as possible.

First, people were given the following statement: "you experience stress in your work", and then they were asked to choose from the following categories how often they were experiencing stress in their work: (1) always, (2) most of the time, (3) sometimes, (4) rarely, (5) never. This first variable, stress, has an ordinal scale, the categories ranging from (1) always to (5) never. To ensure that a high score (5) reflects stronger negative outcomes, the scale of this variable was reversed. In the new variable a score of '1' is interpreted as little to no negative outcomes and a score of '5' as strong negative outcomes.

Second, respondents were asked whether they have experienced any health complaints over the past 12 months, like having a head ache or feeling depressed or anxious: Or, "over the past 12 months, did you suffer from any of health problems ... -?", followed by 14 different health complaints. The respondent could either answer (1) yes or (2) no. When they answered yes on one or more of these questions, the respondent was said to have health problems. 14 questions were asked about different kinds of health issues (appendix 1). Each question represents a different health complaint. These 14 variables were merged into one count variable that represents 'health problems'. A score of '0' means no health problems, '1' means one health problem, and so forth, with 14 being the highest possible amount of health problems. It is not of importance which exact problem respondents experience, but more relevant to see how many problems people experience, in order to check whether the amount of health complaints indeed is influenced by job insecurity and coping mechanisms.

These questions both formed a dependent variable in the statistical tests. This means that one table consists of the results of the linear regression models with *stress* as dependent variable, and the other table will consist of the results of the statistical analyses with *health problems* as a dependent variable.

## 3.2.3 Coping mechanisms

## 3.2.3.1 Employability

As explained in the previous section, employability is indicated by whether people consider themselves employable, or whether they think they need to improve their personal and working skills and to increase their knowledge of the labor market job (Berntson & Marklund, 2007; de Cuyper et al., 2008). One item was used to measure employability. This variable showed how individuals think about their own skills, and was derived from the following question: "which of the following alternatives would best describe your skills in your own work?". Respondents could answer one of the following categories: (1) I need further training to cope well with my duties, (2) my present skills correspond well with my duties, or, (3) I have the skills to cope with more than my duty. The answers given to this question show whether the respondents think they need more training or whether they think their skills are up to date and good enough to cope with their duties. People who consider themselves as more employable and are therefore more secure about their job than people who think they need more training.

In this study, the difference between answer categories 2 and 3 are not of relevance since they both indicate that the respondents consider themselves employable. Whether they think they got enough skills or even too many for their current job is in this study both interpreted as being employable. Therefore the variable was recoded into a dummy variable where a score of '0' contains answer category (1) and is interpreted as workers considering themselves unemployable. A score of '1' contains answer categories (2) and (3) and represents workers who perceive themselves employable.

## 3.2.3.2 Social Support

Social support was measured by constructing a new dummy variable out of a dichotomous variable. The variable from the questionnaire was: "at your workplace is there an employee acting as an employee representative?", with (1) being yes and (2) being no. This variable was recoded into a dummy variable. In this dummy variable '0' stands for no social support (no) and '1' stands for social support (yes).

#### 3.2.4 Control variables

The type of contract an employee is working under might provide another explanation for job insecurity and the negative outcomes of job insecurity (de Cuyper & de Witte, 2006). People with a fixed term contract or a temporary contract possibly experience more job insecurity than people with an indefinite contract. Maybe workers with a temporary contract are highly insecure about the continuation of their job, despite the fact that they might have been very employable. Type of contract was measured by the item: "what kind of employment contract do you have?". This could either be (1) an indefinite contract, (2) a fixed term contract, (3) a temporary employment agency contract, (4) an apprenticeship or other training scheme, or, (5) no contract. A score on '1' was interpreted as a secure situation, whereas a score of '2', '3', '4' or '5' would implicate a more insecure working situation as a result of a definite contract and no assurance that it will be continued.

Furthermore, as was explained earlier, a variety of other variables were controlled in the statistical tests. These are the respondents' income, sex, and age. Income was measured by month and has a wide range of a minimum of 0 to a maximum 1,2 million euro a month. As a result of which income was subjected to a log transformation to get a relatively normal distribution. This moderated the possibility to interpret whether income influenced the negative outcomes to a certain extent. The variable of sex was recoded into a dummy variable with '0' for men and '1' for women.

## 3.3 Analyses

To analyze the data, the program IBM SPSS Statistics 22 was used. First, an overview of the descriptive statistics of the variables was made. To test the hypotheses, multiple regression analyses were performed. Each of the regression models contained the control variables type of contract, age, sex and income. Because the variable for negative outcomes consists of two separate variables, being stress and health problems, each analysis was performed twice. The first regression model contained the variables job insecurity and negative outcomes. In the following regression models the different coping mechanisms were tested solely and in combination with job insecurity and interaction variables in order to test for direct-, indirect- and interaction effects.

## 3.3.1 Missings

To increase the statistical foundation, all missing variables were excluded from the analyses. Variables where respondents answered 'don't know' or refused to answer the question, were also left out, since no interpretations can be derived from these scores. This means that when a respondent had a missing on only one of all tested variables, the respondent was fully excluded from the dataset, even when he or she had no missing scores on the remaining variables. By

filtering all missing and refused scored, every variable acquired the same N value, namely N=22088.

## 3.4 Conditions for regression analysis

Before the tests were performed and interpreted it was checked whether the variables satisfied the requirements for regressions analysis. Scatterplots and normal probability plots indicated that the conditions for linearity, normal distribution and homoscedasticity were met. Furthermore, collinearity statistics do not show values higher than 1.083, which means multicollinearity will not influence the results of the various regression analyses. Therefore, all four requirements were met.

#### 4. Results

## 4.1 Descriptive statistics

A score of '1' on the variable *job insecurity* refers to low to no perceived job insecurity and a score of '5' to high perceived job insecurity. In the data, 2149 people had a score of '5', which means that 6,5% of the respondents think they might lose their job within the next six months.

The variable *stress* has a minimum score of '1' and a maximum score of '5'. Where '1' stands for low tot no stress and '5' for a high level of stress. The average stress level appears to be 2,86 with a standard deviation of 1,2. Over 65,7% of the respondents has a score higher than the mean of stress. Most of the respondents do not suffer from more than 3 health problems. However, still 8449 people (38,3%) state to suffer from more than 3 health problems.

The variable *employability* has a minimum score of '0' and a maximum score of '1', where '0' means an employee perceives himself as unemployable and '1' means someone considers himself employable. In the dataset, 2578 respondents (11,7%) said to feel unemployable, and 19510 (88,3%) feels employable.

In the score of the variable *social support* '0' stands for no social support and '1' for social support (in the form of an employee representative). The descriptive statistics of social support show a mean of 0,48 and a standard deviation of 0,50, which seems to tell that only half of the 22088 respondents get social support. Indeed, out of the 22088 people, 11459 (51,9%) said to have the opportunity to get social support.

Table 1. Descriptive statistics of variables

Variable	Mean	Standard deviation	Min	Max
Job Insecurity	2,3261	1,24078	1	5
Negative Outcomes				
Stress	2,8590	1,15599	1	5
Health Problems	3,0068	2,51030	1	5
Coping mechanisms				
Employability*	0,8833	0,32109	0	1
Social Support*	0,4812	0,49966	0	1
Control Variables				
Sex*	0,5134	0,49983	0	1
Age	41	11,774	15	89
Income	7,5700	1,43157	2,30	14,00
Type of Contract	1,5198	1,19675	1	6

<sup>\*</sup>Employable = 1, \*Social Support = 1, Sex: 0 = male, 1 = female, N = 22088

#### Control variables

51,3% of the respondents in the dataset are female. The distribution of the quantity of men and women is therefore almost equal. Their average age is 41 years and most workers (77,8%) are working under an indefinite contract. The remainder of the employees have a fixed term, temporary or no contract.

#### 4.2 Explanations

In this section the results of the statistical analyses are outlined. The results are presented in table 2 and table 3. The former with stress as dependent variable and the latter with health problems as dependent variable. The statistically significant results are also visually represented in an schematic overview (see figure 2 and figure 3 in appendix 2).

#### Job Insecurity and Negative Outcomes

The first regression tested the relation between job insecurity and the negative outcomes. The expectation was that the analysis will show a positive relation between the independent variable job insecurity and the dependent variables a) stress and b) health problems. The effect of job insecurity on stress appears to be in the expected direction ( $\beta$ =.060, SE=.006), with a significance level of p<.001. The same goes for the effect of job insecurity on health problems ( $\beta$ =.274, SE=.014), with a

significance level of p<.001. These findings build on the expectations from the first hypothesis.

## Employability and Negative Outcomes - Direct and Indirect Effect

A linear regression shows indeed a negative relation between employability and stress ( $\beta$ =-.281, SE=.024) and between employability and health problems ( $\beta$ =-.387, SE=.027), both with a significance level of p<.001. These findings supported the second hypothesis that more employability would lead to a lower stress level and fewer health problems. Instead of a decreasing effect of employability after adding job insecurity to the model, the effect even slightly increases from  $\beta$ =-.281 to  $\beta$ =-.282 for stress and from  $\beta$ =-.387 to  $\beta$ =-.393 for health problems with both a significance level of p<.001. Hence, no evidence is found that demonstrated an indirect effect of employability through reduced perceived job insecurity on negative outcomes (H3).

## Social Support and Negative Outcomes - Direct and Indirect Effect

After investigating the influence of employability as a possible coping mechanism, the second coping resource, social support, was tested. The results of the tests on the direct effect of social support on the negative outcomes significantly contradicted the expectation that social support will decrease the stress level ( $\beta$ =.121, SE=.016, p<.001) and diminish health problems ( $\beta$ =.087, SE=.034, p=.011). The output on the indirect effect of social support through job insecurity on the negative outcomes showed a symptom similar to that of employability. Both stress and health problems seem to increase as a result of social support. This effect even further increased after job insecurity was added to the model. In other words, no statistical support was found for the fourth and fifth hypotheses investigated in this study.

### Interaction

A remarkable result from the statistical tests is that they indicated a positive interaction effect of employability and job insecurity on stress ( $\beta$ =.048, SE=.019, p=.011). This outcome is significantly opposite to the expectation. Furthermore, no statistical evidence was found to support the additional expectations about the interaction effect of employability and job insecurity on health problems or the possible interaction effect of social support and job insecurity on both the negative outcomes.

	Mode	el 1	Mode	1 2	Mode	el 3	Mod	el 4	Mod	el 5	Mod	el 6	Mode	17
	В	SE												
Constant	2.377	.056	2.808	.057	2.628	.060	2.742	.070	2.548	.052	2.355	.056	2.340	.057
Job Insecurity	.060***	.006			.061***	.006	.019	.018			.065***	.006	.072***	.009
Coping Mechanisms														
Employability			281***	.024	282***	.024	393***	.050						
Social Support									.121***	.016	.134***	.016	.171***	.033
Interactions														
Employability* Job Insecurity							.048**	.019						
Social Support* Job Insecurity													016	.013
Control variables														
Type of Contract	004	.007	.002	.007	005	.007	005	.007	.009	.007	.002	.007	.002	.007
Age	004***	.001	004***	.001	004***	.001	004***	.001	005***	.001	004***	.001	004***	.001
Sex	.116***	.016	.109***	.016	.112***	.016	.112***	.016	.116***	.016	.120***	.016	.119***	.016
Income	.060***	.006	.053***	.006	.057***	.006	.057***	.006	.049***	.006	.053***	.006	.053***	.006
R-Square														
$R^2$	.012*	**	.014*	**	.018*	**	.018	***	.010	***	.015	***	.015***	\$

Table 2.Results of linear regressions: dependent variable is stress. N = 22~088 Significance levels \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

	Model	1 1	Mode	el 2	Model	3	Model	4	Model	15	Model	6	Mode	17
	В	SE												
Constant	1.285	.119	2.447	.122	1.635	.127	1.682	.151	2.094	.113	1.261	.119	1.267	.122
Job Insecurity	.274***	.014			.275***	.014	.254***	.038			.279***	.014	.276***	.019
Coping Mechanisms														
Employability			387***	.052	393***	.052	446***	.107						
Social Support									.087*	.034	.141***	.034	.127*	.071
Interactions														
Employability* Job Insecurity							.023	.040						
Social Support* Job Insecurity													.006	.027
Control variables														
Type of contract	.010	.014	.043**	.014	.009	.014	.009	.014	.048***	.014	.017	.014	.017	.014
Age	.028***	.001	.027***	.001	.029***	.001	.029***	.001	.026***	.001	.028***	.001	.028***	.001
Sex	.448***	.033	.428***	.034	.443***	.033	.443***	.033	.435***	.034	.452***	.033	.452***	.033
Income	040***	.012	065***	.012	044***	.012	044***	.012	066***	.012	047***	.012	047***	.012
R-square														
$R^2$	.041**	**	.026*	**	.044**	*	.024**	*	.024**	**	.042**	*	.042*	**

Table 3. Results of linear regressions: dependent variable is health problems.  $N = 22\,088$ . Significance level \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

#### 5. Conclusion & Discussion

As a result of dramatic changes in working life over the past decades, job insecurity and work-related negative outcomes have largely increased. In this study it is aimed to gain insight into what role coping mechanisms could play in diminishing job insecurity and the negative consequences (stress and health problems) of job insecurity. Using the European Working Conditions Survey, which contains a large representative sample of the working population aged 15 years and older throughout 34 countries in Europe, different multiple regression analyses are performed to test whether coping mechanisms could diminish the negative outcomes of job insecurity. The respondents are selected from a random sample, which increases the validity of the research approach. The research question that was formulated and aimed to be answered in this study was 'how do coping mechanisms influence the negative consequences of job insecurity?'. To help finding an answer to this question, the following sub questions were constructed (1) What are the consequences of job insecurity? (2) Which mechanisms are used to cope with job insecurity? (3) What are the direct and indirect influences of coping mechanisms on the negative outcomes of job insecurity?

The link between job insecurity and its outcomes is well documented in previous research (de Witte, 1999, Cheng et al., 2005; Jacobson 1991; Berntson & Marklund, 2007). Two separate analyses with stress and health problems as two dependent variables both indicate a positive, significant relation with job insecurity as well. This means that more perceived job insecurity indeed results in an increased stress level and more health problems than less perceived insecurity about employment.

Employability and social support are two coping resources that have received much attention in previous studies (Lazarus & Folkman, 1984; de Vries, Gründemann & van Vuuren 2001; de Cuyper et al. 2008). On that account it was expected that both employability and social support provide useful strategies to help in coping with the negative outcomes of job insecurity. The results indeed show a negative relationship between employability and stress and health problems. This indicates that people who consider themselves employable experience less stress and suffer from fewer health complaints than people who consider themselves unemployable. Remarkable, however, is that no statistical evidence is found showing a similar effect for the influence of social support. More than that, the results significantly contradict expectations by showing a positive relation, which implicates that social support will even increase both the employees' stress level and their health problems.

The aim of the study was also to test whether there are interactions between the coping mechanisms and job insecurity. There is only one case where the interaction effect proves to be significant.

Strikingly, this effect is in the opposite direction of the expectation. In other words, people who consider themselves employable, experience more stress as a result of job insecurity than people who do not consider themselves employable.

Based on the results from this study, there is evidence that employability might provide an important coping resource in counteracting the work-related stress and health problems. To be able to cope with job insecurity and its consequences, it would be beneficial to increase one's employability. Social support does not seem to be of high relevance in coping with job insecurity. Which means it does not matter whether there is an employee representative present at the employee's working department.

In conclusion, this research shows that, after controlling for other possible predictors of stress and health problems, employability is an important mechanism in reducing and driving an employee's stress level and their amount of health complaints. However, social support does not significantly influence the negative consequences of job insecurity and cannot be considered as a crucial coping mechanism.

The finding that perceived job insecurity indeed seems to lead to more experienced stress and health problems is in accordance with findings from previous research (de Witte, 1999; Schreurs et al., 2010). Furthermore, no evidence was found indicating an indirect effect of coping mechanisms on the negative outcomes through job insecurity, which is in contradiction with many previous studies (e.g. Heany, Price & Rafferty, 1995; Sverke et al., 2004; de Cuyper et al., 2008). Although the results do not show an indirect effect of employability on stress and health problems via job insecurity, there seems to be a direct effect. This means that without first decreasing job insecurity, employability directly diminishes employees' stress and health problems. This is a good sign, and indicates that employability indeed is a helpful mechanism in improving a worker's condition or situation. No indirect effect of employability via job insecurity was found on negative outcomes. This phenomenon might be due to the possibility that being employable reduces stress and health problems and provides confidence in one's skills and the trust of being able to find another job in case the employee get fired. However, being employable might amplify the perceived possibility of finding another job, this does not mean that the threat of losing one's job thereby decreases. This might be an explanation of why employability does not indirectly influences the negative outcomes through job insecurity. On the other hand, more self-esteem as a result of perceived employability directly decreases stress and health complaints, which is still an important result.

In contrast to expectations, social support significantly increases employees' stress level and health problems. These findings contradict Lazarus & Folkman (1984), who stated that social support would diminish stress in times of job insecurity. Trying to find an explanation for this

phenomenon, it could be due to the measurement of the concept of social support. The variable social support was measured by the item "is there an employee acting as an employee representative?". Even though the presence of an employee representative could implicate moral and social support for an employee, question marks can be put with the way of measuring this concept. The presence of an employee representative does not necessarily have to lead to the employees' perception of being (socially) supported. The validity of this concept could be increased if the questionnaire contained a question about how socially supported the employees feel. In previous research more measurements of social support were used, one of which is union memberships (Armstrong-Stassen, 1993; Dekker & Schaufeli, 1995). This might be a better indicator of actual social support. Another explanation for the contradicting results on the expectations about the influence of social support, can possibly be asserted to different work environments in which employees are employed. Some environments possibly provide more job insecurity than others. These are more likely to be in need of social support or an employee representative. It is likely that more employee representatives are active in branches where the work environment is more insecure. Therefore, the presence of an employee representative does not necessarily decrease job insecurity, but it rather forms an indicator for insecure work environments. This might be an alternative explanation for why the presence of social support correlates with more instead of less job insecurity, as the latter was expected.

An important limitation to the questionnaire the dataset is based on, is the limited questions that are used to measure 'employability' and 'social support'. Both concepts are only measured by one question each. This complicates the possibility of drawing strong conclusions about these concepts and the exact interpretation of the results. To get a more complete view on the relation between the various variables, it is recommendable to measure the variables differently. This means, to construct new variables that better represent social support and employability. This can be achieved by using multiple questions to merge new variables that represent these two mechanisms. Indicators of social support and employability could be supplemented with measures of how the employee perceives the support, and with measures of undergone trainings by the employee and the effect of these trainings. Berntson, Bernhard-Oettel and de Cuyper (2007), for example, measured employability with four items that more indirectly tell something about the respondent's perceived employability. These items are based on questions developed by de Witte (2000), and do not directly ask the respondents whether they consider themselves employable, but consist of questions such as whether employees are confident in finding another job in case they would lose their current employment. These measurements are in accordance with several definitions of employability that are discussed in the theory section of this current study (Berntson & Marklund,

2007; de Cuyper et al., 2008). Unfortunately, the dataset of the current study did not allow for such a measurement but this might provide a good alternative measurement for future research.

As explained earlier in this research, one of the most important predictors of job insecurity nowadays seems to be the increasing flexibility of organizations and employment contracts (Watson, 2012). This -type of contract employees were working under- was therefore an important control variable. Striking, however, is that type of contract appeared to be insignificant in either of the statistical analyses. These results contradict expectations, since more flexibility would seem to lead to more perceived job insecurity. The fact that in this dataset 77,7% of the respondents were employed under an indefinite contract might explain these results. These employees most likely perceive little to no job insecurity since they cannot get fired easily and occupy a steady position concerning their employment.

Another important limitation to this study is the explained variance in the statistical tests. The highest explained variance amounts to only 4,4%. On one hand, it is positive that the questionnaire tries to survey as much aspects of working life as possible. On the other hand, as a result, the broad nature of this survey decreases the explanatory power of one or two predicting variables. In other words, because of the large amount of different variables, one variable can impossibly represent job insecurity, employability, social support or stress. This largely affects the explained variance. To increase the explained variance, it is essential that in future research concepts that are being measured will be constructed from multiple predicting variables.

To create more reliability, it is relevant to try to include as many variables as possible to measure a concept and thereby to cover possible flaws. Furthermore, it might be interesting to explore whether there are other coping mechanisms. Until now most research has focused on employability and social support as coping mechanisms, but little is known about possible alternatives. For example, Roskies, Louis-Guerin and Fournier (1993) have found that a positive mentality makes an important difference in coping with job insecurity and the consequential increased stress level. Also, Armstrong-Stassen (1994) conducted research on how optimistic individuals might be better able to cope with their job insecurity and its consequences, because they have more confidence that in time things will unravel.

In the sample used in this research employees from different working sectors are taken into account, which are said to differ in perceived job insecurity and employability (Cuyper et al., 2008). This may increase the generalizability of this study. Furthermore, the dataset used in this research is more extensive than any previous and comparable research done in this field. Additionally, In view of the fact that the dataset is based on data contained in 34 different countries, the findings of this studies can be generalized throughout Europe.

The purpose of this study was to gain more insight in the working of coping mechanisms and how these can help in battling with job insecurity and its negative consequences. Evidence is found for employability to be an important mechanism which can help in decreasing job insecurity and its negative outcomes. By gaining more insight into the exact functioning of coping mechanisms one might be able to improve their insecure working situation which in turn results in less stress and less health complaints, that is, a greater general well-being of society as a whole. Future research could use the results of the current study to further extent the working employability. This research allows future studies for good comparison with these results.

Furthermore, stress and health issues are not only a result followed from the possibility of becoming unemployed, it is also the threat of losing one's income. Until recently, little research has focused on the role coping mechanisms can play. This study contributes to the development of effective strategies on coping with work-related stress and health problems. Considering the several points of interest that could be improved in the future, further research on the value of coping mechanisms on the relation between job insecurity and its negative outcomes is needed. Future research is necessary to shed light on this important topic to further explore the effect and value of coping mechanisms. Nowadays, in an increasing individualizing world, it is important that employees can stand up for their self-interest and thereby protect their working position. They should not become a victim of organizational restructures and modernization.

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# Appendix 1

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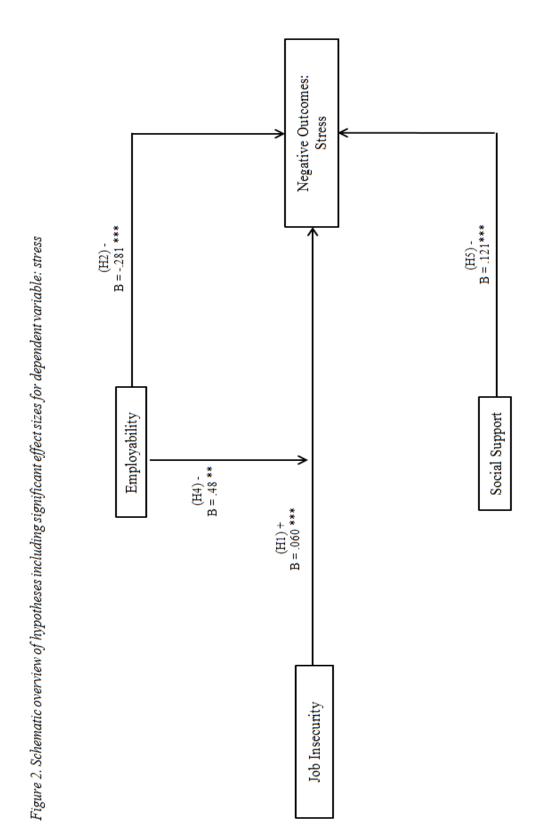
	Question		Answers
Q 77 A	How much do you	I might lose my job in	5 - Stronly agree
	agree or disagree with	the next six months	4 - Agree
	the following		3 - Neither agree nor
	statements describing		disagree
	some aspects of your		2 - Disagree
	job?		1 - Strongly disagree
			7 - Not applicable
			8 - DK
			9 - Refusal
			9 - Ketusai
Negative outcomes:			
Stress			
	Question		Answers
Q 51 N	For each of the	You experience stress	1 - Always
	following statements,	in your work	2 - Most of the time
	please select the	-	3 - Sometimes
	response which best		4 - Rarely
	describes your work		5 - Never
	situation		8 - DK
			9 - Refusal
Negative outcomes:			
Health problems			
	Question		Answers
Q 69 A	Over the last twelve	Hearing problems	1 - Yes
	months did you suffer		2 - No
	from any health		3 - DK
	problems		4 - Refusal
Q 69 B		Skin problems	1 - Yes
			2 - No
			3 – DK
			4 - Refusal
Q 69 C		Backache	1 – Yes
			2 - No
			3 - DK
			4 - Refusal
Q 69 D		Muscular pain in	1 – Yes
		shoulders/neck/upper	2 - No
		limbs	3 - DK
			4 - Refusal
Q 69 E		Muscular pain in	1 – Yes
		lower limbs	2 - No
			3 – DK
			4 - Refusal
Q 69 F		Headaches/eyestrain	1 – Yes

			3 – DK 4 - Refusal
Q 69 G		Stomach ache	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 H		Respiratory difficulties	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 I		Cardiovascular diseases	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 J		Injury(ies)	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 K		Depression or anxiety	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 L		Overall fatigue	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 M		Insomnia or general sleep difficulties	1 – Yes 2 – No 3 – DK 4 - Refusal
Q 69 N		Other	1 – Yes 2 – No 3 – DK 4 - Refusal
Coping mechanisms Employability			
Q 60	Question  Which of the following alternatives would best describe your skills in your own work?		Answers  1 - I need further training to cope well with my duties  2 - My present skills correspond well with my duties  3 - I have the skills to cope with more than my duty  8 - DK  9 - Refusal

# Coping mechanisms Social support

Question	Answers
At your workplace is	1 - Yes
there an employee	2 - No
acting as an employee	8 - DK
representative?	9 - Refusal

**Appendix 2 – Schematic overview of statistical effects** 

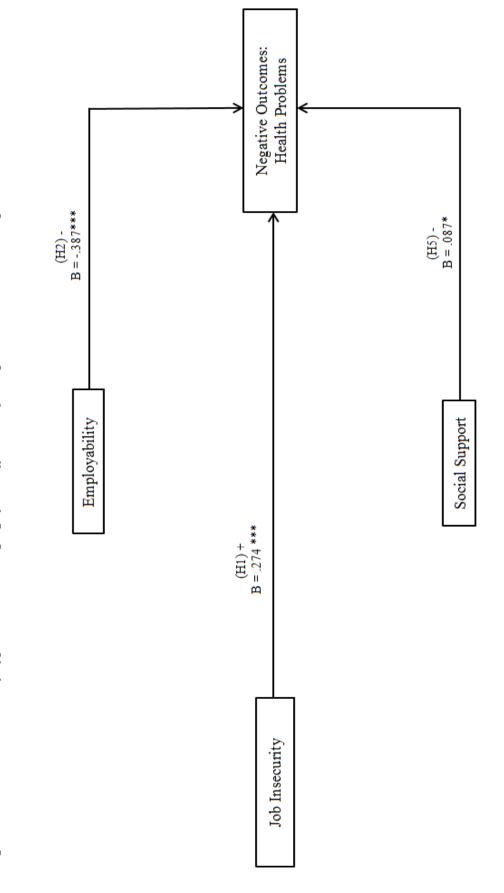


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Indirect effect ------

Direct effect

Figure 3. Schematic overview of hypotheses including significant effect sizes for dependent variable: health problems



Direct effect —

Indirect effect ------