

KU LEUVEN

**FACULTY OF PSYCHOLOGY AND
EDUCATIONAL SCIENCES**



**UNIVERSITÀ
di VERONA**

**FACULTY OF HUMANTIES,
DEPARTMENT OF HUMAN
SCIENCE**

Title:

**Quantitative and Qualitative Job Insecurity: Outcomes
and Moderators in Iran, Belgium, and U.S.**

Morteza Charkhabi

Doctoral thesis offered to obtain the degree of Doctor of
Psychology (PhD) within the framework of a joint
doctorate at KU Leuven and University of Verona

Supervisors:

Prof. Dr. Hans De Witte and Prof. Dr. Margherita Pasini

juni 2017



English Summary

Quantitative and Qualitative Job Insecurity: Outcomes and Moderators in the Iran, Belgium, and U.S.

Ph.D. delivered by Morteza Charkhabi

Promoters: Prof. Dr. Hans De Witte and Prof. Dr. Margherita Pasini

Dissertation submitted to obtain the degree of Doctor of Psychology

Job insecurity as an occupational stressor has been influencing the well-being of employees for some decades. Most of the studies have acknowledged the detrimental impact of this stressor on employees and organizations. Job insecurity can be divided into quantitative and qualitative job insecurity. Quantitative job insecurity is the overall concern of an employee toward the continued existence of his/her job in the future. Qualitative job insecurity is the concern of employees about losing valuable characteristics of their job in the future. In this Ph.D. thesis we attempt to replicate the impact of job insecurity on a wide range of well-being related outcomes across Iran, Belgium and the U.S. Also, we explore how the cognitive appraisals of job insecurity, namely hindrance and challenge appraisals, and employee's attitudes such as boundaryless career orientation moderate the association between job insecurity and these outcomes.

To achieve the above goals, this thesis consists of five chapters and five studies in which the association between both job insecurity and various well-being related outcomes are discussed. Chapter I is a general introduction on the studied outcomes, moderators, samples, and theories used in this thesis. Also, this chapter presents some information about the five studies in more detail. Chapter II includes study 1 and 2. In these two studies, we investigate the association between quantitative job insecurity and two popular well-being related outcomes in Belgium and Iran. Moreover, in this chapter, we test the extent to which cognitive appraisals of job insecurity can affect the association between quantitative job insecurity and these outcomes. Chapter III includes only study 3. In this study, we detect the association between qualitative job insecurity and two categorizations of well-being related outcomes, namely psychological outcomes, and behavioral outcomes, in Iran. Chapter IV contains study 4 and 5. In these two studies, we attempt to replicate the negative association between quantitative job insecurity and well-being related outcomes in terms of job strains and coping reactions. Furthermore, we test the extent to which boundaryless career orientation can moderate the link between quantitative job insecurity and these outcomes. All five studies are theoretically based on cognitive appraisal theory. However, we use conservation of resources theory as a supplementary theory to further explain our findings. Chapter V is added to discuss, explain, and elaborate our findings in more detail. In addition, it proposes some research and practical recommendations.



Nederlandstalige Samenvatting

Kwantitatieve en kwalitatieve jobonzekerheid: Gevolgen en moderatoren in de Iran, België en VS
Doctoraat afgeleverd door Morteza Charkhabi

Promoters: Prof. Dr. Hans De Witte and Prof. Dr. Margherita Pasini

Proefschrift aangeboden tot het verkrijgen van de graad van Doctor in de Psychologie

Jobonzekerheid is een stressor op het werk die het welbevinden van werknemers beïnvloedt. De meeste studies hebben gewezen op de nadelige gevolgen van deze stressor voor werknemers en hun organisaties. Jobonzekerheid kan worden onderverdeeld in kwantitatieve en kwalitatieve onzekerheid. Kwantitatieve jobonzekerheid betreft de onzekerheid over het voortbestaan van de huidige baan in de toekomst. Kwalitatieve jobonzekerheid betreft de bezorgdheid van werknemers over het verliezen van als waardevol ervaren deelaspecten van de baan in de toekomst. In deze doctoraatsthesis onderzoeken we als replicatie de impact van onzekerheid op een breed scala welzijnsgerelateerde variabelen in Iran, België en de VS. Tevens exploreren we in welke mate de cognitieve taxaties van jobonzekerheid als ‘belemmering’ versus ‘uitdaging’, en de variabele ‘grenzeloze carrière oriëntatie’ de samenhang modereren tussen jobonzekerheid en diverse uitkomstvariabelen.

Om deze doelen te realiseren, bestaat dit proefschrift uit vijf hoofdstukken en vijf studies. Hoofdstuk I is een algemene inleiding over de bestudeerde uitkomstvariabelen, moderatoren, steekproeven en theorieën die in dit proefschrift worden gebruikt. Hoofdstuk II bevat studie 1 en 2. Daarin onderzoeken we de samenhang tussen kwantitatieve jobonzekerheid en twee welzijnsgerelateerde variabelen in België en Iran. Bovendien onderzoeken we de mate waarin cognitieve taxaties van jobonzekerheid de relatie tussen jobonzekerheid en de uitkomstvariabelen modereren. Hoofdstuk III bevat enkel studie 3, uitgevoerd in Iran, waarin de samenhang wordt onderzocht tussen kwalitatieve jobonzekerheid enerzijds en psychologische versus gedragsvariabelen anderzijds. Tevens onderzoeken we de mate waarin cognitieve taxaties van jobonzekerheid de relatie tussen jobonzekerheid en de uitkomstvariabelen modereren. Hoofdstuk IV bevat studie 4 en 5. Daarin wordt de samenhang onderzocht tussen kwantitatieve jobonzekerheid enerzijds en spannings- versus copingvariabelen anderzijds. Verder testen we de mate waarin een ‘grenzeloze carrière oriëntatie’ deze samenhangen modereert. Alle studies zijn gebaseerd op de cognitieve ‘appraisal’-theorie. De ‘conservation of resources’-theorie wordt als aanvullende theorie gebruikt. Hoofdstuk V bevat de algemene discussie, waarin wordt ingegaan op de aanbevelingen voor theorie, onderzoek en praktijk.



Thesis Acknowledgement

■ My joint Ph.D. was such a tremendous journey! It was a rich learning experience with many sweet, challenging, and memorable moments in both Italy and Belgium. During this adventure, a lot of amazing fellow-travelers accompanied me and offered help. I would like to sincerely thank each and every one of you. Foremost, I would like to express my sincere appreciation to my supervisors, Prof. Dr. Hans De Witte and Prof. Dr. Margherita Pasini, whom without their assistance this undertaking could not have been fulfilled. Thanks Hans for welcoming me to the O2L-WOPP research group and also for opening my eyes to the world of science and research. You taught me what science is and how a scientist should be. Your guidance has aided me tremendously in the research and writing of this thesis. I will not forget your many constructive comments and suggestions relating to all my papers, presentations, and chapters. Also, thanks to Margherita who generously provided me with so much support, both financially and spiritually, throughout this entire endeavor with her administration and recommendations. I learned from you to always be considerate and patient with students, and generous in giving opportunities to those who show ambition and want to grow quickly. Both of you will remain in my thoughts throughout my life. 😊

■ This Ph.D. journey needed additional energy and motivation which was provided by my family members. A big part of this energy and motivation came from my mother whose prayers and kind attentions always kept my heart warm and my mind curious to follow my dreams. My dad, who was absent in this world but during the challenging times of this journey, I felt so close to him by remembering his encouraging words and sentences to become a well-educated person as my other family members have. Also, I appreciate my brothers and sisters that made me smile in the tough times of my journey. A hug and thanks to all of you. You guys showed me no one is better than a brother or sister in the hard times! 😊

■ A part of this venture was in the U.S. in collaboration with Prof. Dr. Tahira Probst at Washington State University. I am so grateful and honored that she accepted my request to move to her lab and to work on the first paper of my Ph.D. under her guidance. Thank you Tahira for your scientific attentions and commitment to inviting visiting scholars. Your well-organized roundtables and our scientific weekly-based meetings inspired me a lot! Also, thanks to my friends in this lab: Jason, Jesse and Nicholas and my close friends who helped me a lot to know this university: Becky and Dominic!



- I should not forget to thank my colleagues and good friends in O21-WOPP research group of KU Leuven, Belgium who were my other co-travellers in this experience: Mayo, Saidur, Wini, Ivana, Cyracious, Innocentina, Ifeadikechi, Irina, Anne, Annahi, Kristien, Natalia, Steffi, Els, Eva, Tijs, Jana, Katrien, Jeroen, Stijn, Tinne, Elisabeth and Katrien. Also, I am grateful to Martin, Wilmar, Jeroen, Nele, and others that shared their knowledge and experiences with me during my stay time in Leuven. Besides, I would also like to thank my colleagues and friends in Verona: Massimo, Riccardo, Ugo, Anne, Beatrice, Margherita (Brondino), Barbara, Andrea (Ceschi), Andrea (Scalco), Zeno, Francesco, Camilla, Catia, Matteo, Anna, Martina, Ariana, Gianluca ☺
- My sincere thanks also go to Prof. Laura Borgogni, Prof. Cristian Balducci, Prof. Antonio Chirumbolo, and Prof. Nicolao Bonini for reading my thesis as the examination board, and for allowing me know their kind comments and opinions on different sections of it.
- Last but not least, I would like to thank those hospitals and employees that participated in my surveys and allowed me to collect two waves of data from Iran. Also, thanks to my dear friend Mojtaba who helped me in the process of data collection from Iran. Lastly, thanks go to my friend John Horgan, from Australia, who helped me to improve the English text of my thesis with his applied knowledge and useful suggestions.

I wish you all the best,

Morteza



TABLE OF CONTENTS

English Summary	II
Nederlandstalige Samenvatting	III
Thesis Acknowledgement	IV
Chapter I: General Introduction	
Job Insecurity: Aims.....	2
Job Insecurity: Overview	2
Job Insecurity: Definitions and Types.....	5
Job Insecurity: Theories Used	7
Data, Participants, and Countries Included.....	9
Short Conclusion	12
References.....	13
Chapter II: Quantitative Job Insecurity and Cognitive Moderators	
Abstract.....	18
Introduction.....	19
Contributions of the Current Study.....	20
Hindrance versus Challenge Appraisals: Amplifier or Buffer?	20
Method	24
<i>Participants</i>	24
<i>Procedure</i>	25
<i>Measures</i>	25
Data analysis	27
Results	28
Preliminary analyses on the “cognitive appraisals of job insecurity scale”	28
Descriptive statistics.....	34
Test of the Moderating Effects of Cognitive Appraisals.....	35
Discussion	39
Suggestions for Future Research.....	42



Strengths and Limitations.....	43
Conclusion	44
References	45

Chapter III: Qualitative Job Insecurity and Cognitive Moderators

Abstract.....	53
Introduction.....	54
Contributions of the present study	55
Job insecurity-Strains Sequence	56
Qualitative Job insecurity and Psychological Well-Being.....	57
Qualitative Job insecurity and Behavioral Well-Being	58
Qualitative Job insecurity and Cognitive Appraisals: Amplifier or Buffer	60
Method	62
<i>Participants and procedure</i>	62
<i>Measures</i>	63
Results	65
<i>Preliminary analysis (CFA) on appraisals scale</i>	65
Descriptive statistics	66
Test of the Moderating Role of Hindrance Appraisals.....	67
Test of the Moderating Effects of Challenge Appraisals.....	70
Discussion	71
Strengths and Limitations.....	74
Conclusion	75
References	77

Chapter IV: Quantitative Job Insecurity and Boundaryless Career Orientation

Abstract.....	86
Introduction.....	87
Contributions of the present study	88
Moving to an Integrated Model	89
Job insecurity, Strains, and Coping Reactions.....	91



The Mediating Role of Psychological Contract Breach	92
The Moderating Role of Boundaryless Career Orientation (BCO)	93
The Moderating Role of BCO and Psychological Contract Breach	95
Study 1: USA.....	97
Method	97
<i>Participants and procedure</i>	97
<i>Measures</i>	98
Results	99
Study 2: Belgium	102
Method	102
<i>Participants and procedure</i>	102
<i>Measures</i>	103
Results.....	103
Discussion.....	106
Theoretical implications.....	109
Practical implications	109
Limitations	110
Conclusion.....	111
References.....	113

Chapter V: Discussion and Conclusion

Introduction	122
A brief summary of key findings	122
Implications for theory	124
<i>Contributions to stress theories</i>	124
<i>Contributions to existence literature</i>	126
Implications for research	127
i. Psychological outcomes or behavioral outcomes or both?.....	127
ii. Continue with National-Sectional Studies.....	127
iii. Facilitating Measuring Hindrance vs. Challenge Appraisals	128
iv. Emotional Personal Resources or Cognitive Personal Resources?.....	128



v. Showing Gaps to Future Researchers.....	129
Implications for practice.....	130
Limitations	133
Conclusion.....	134
References.....	136

Appendices

Annex 1.....	141
Annex 2.....	141

LIST OF TABLES

Chapter I: General Introduction

Table 1. A classification of the possible consequences of job insecurity.....	3
Table 2. A classification of the possible outcomes of job insecurity.....	4
Table 3. Studies included in this Ph.D. thesis based on country, sample, and variables	11

Chapter II: Quantitative Job Insecurity and Cognitive Moderators

Table 1. Goodness-of-Fit Indicators of the hindrance vs. challenge appraisal scale in the total sample ($N = 654$).....	30
Table 2. Results of measurement invariance testing in the total sample ($N = 654$)	32
Table 3. Means, standard deviations, and correlations among the variables in the total sample, and in Belgium and Iran separately	34
Table 4. Regression results (standardized regression coefficients) predicting the outcomes in the total sample ($N = 654$)	36
Table 5. Regression results (standardized regression coefficients) predicting the outcomes in Belgium ($N = 348$).....	37
Table 6. Regression results (standardized regression coefficients) predicting the outcomes in Iran ($N = 306$).....	39



Chapter III: Qualitative Job Insecurity and Cognitive Moderators

Table 1. Goodness-of-Fit Indicators of challenge-hindrance appraisal scale ($N = 250$)	65
Table 2. Means, standard deviations, and correlations among the research variables ($N = 250$).....	66
Table 3. Regression results (standardized regression coefficients) predicting the outcomes ($N = 250$)	68

Chapter IV: Quantitative Job Insecurity and Boundaryless Career Orientation

Table 1. Correlations between the variables in the U.S. ($N = 1071$)	100
Table 2. Results of the single mediator and single moderator analyses in the U.S. ($N = 1071$)	101
Table 3. Correlations between the variables in the Belgium ($N = 348$).....	103
Table 4. Results of the single mediator and single moderator analyses in Belgium ($N = 348$).....	104

LIST OF FIGURES

Chapter II: Quantitative Job Insecurity and Cognitive Moderators

Figure 1. An integrated model of the relationships among the variables.....	24
Figure 2. Measurement model of the challenge vs. hindrance appraisals of job insecurity in the total sample ($p < .001$).....	31
Figure 3. The interaction effect of job insecurity \times hindrance appraisal of job insecurity on emotional exhaustion in the total sample	36
Figure 4. The interaction effect of job insecurity \times hindrance appraisal of job insecurity on emotional exhaustion in Belgium	38

Chapter III: Qualitative Job Insecurity and Cognitive Moderators

Figure 1. A conceptual model of the association between research variables	56
--	----



Figure 2. Measurement model of the challenge vs. hindrance appraisals of job insecurity in the total sample ($p < .001$)..... 66

Figure 3. Interaction of qualitative job insecurity \times hindrance appraisals on job satisfaction..... 69

Figure 4. Interaction of qualitative job insecurity \times hindrance appraisals on emotional exhaustion..... 70

Figure 5. Interaction of qualitative job insecurity \times challenge appraisals on job satisfaction 71

Chapter IV: Quantitative Job Insecurity and Boundaryless Career Orientation

Figure 1. An integrated model of the proposed nomological network..... 90

Figure 2. Interaction Job insecurity \times BCO on life satisfaction in the U.S.....101

Figure 3. Interaction PCB \times BCO on turnover intentions in the U.S.....102

Figure 4. Interaction Job insecurity \times BCO on life satisfaction in Belgium105

Figure 5. Interaction job insecurity \times BCO on turnover intentions in Belgium 105

Figure 6. Interaction Job insecurity \times BCO on job burnout in Belgium.....105

2017

Chapter I

General Introduction





Job Insecurity: Aims

This Ph.D. thesis has two general research aims. The first aim is to study the association between two forms of job insecurity, namely quantitative and qualitative, and well-being related outcomes in the three countries of Iran, Belgium, and U.S. The second aim is to determine the extent to which the individual-based moderators can moderate the association between both types of job insecurity and various outcomes related to well-being.

Job Insecurity: Overview

In the current turbulent world, various situational stressors are threatening the mental and physical health of employees in both industries and organizations (De Beer, Rothmann Jr. & Pienaar, 2016; Schaufeli, 2016; Cheng & Chan, 2008). Among these stressors, job insecurity has been recognized as one of the complex stressors that can negatively influence the well-being of employees within and outside the workplace (Sverke, Hellgren, & Näswall, 2006).

Statistical information obtained from different corners of the world show that job insecurity is a world-wide chronic work stressor and is dramatically emerging or growing in Europe (e.g., László, Pikhart, Kopp, Bobak, Pajak, Malyutina, Salavecz, & Marmot, 2010), U.S. (e.g., Hamad, Modrek, Cullen, 2015), Australia (e.g., Turner & Lingard, 2016), and Africa (e.g., De Beer, Rothmann Jr. & Pienaar, 2016). For example, according to the OECD¹ (2016), the rate of job insecurity rose from 7.0% in 2008 to 10.8% in 2013 in the 28 European countries included in the survey. This shows that many employees are experiencing the psychological and physical sufferings associated with job insecurity in their working life (Cheng & Chan, 2008; De Witte, Pienaar & De Cuyper 2016). This encouraged researchers to pay particular scientific attention to this work stressor in industries and organizations, to identify its nature, and to control its negative impact on employees (László, Pikhart, Kopp, Bobak, Pajak, Malyutina, Salavecz, & Marmot, 2010; Hamad, Modrek, Cullen, 2015; Turner & Lingard, 2016).

¹. Organization for Economic Co-operation and Development



Evidence shows that recent economic recessions, increased global competition to achieve a larger portion of the sale market, technological innovations for producing increases in efficiency, downsizing and reductions in the workforce, and the desire of employers to use short-term employment contracts for employees, are some of the important factors that cause job insecurity among employees (Sverke, Hellgren, Näswall, 2002; Probst, 2005; Falco, Dal Corso, De Carlo, & DI Sipio, 2008; Schaufeli, 2016). Numerous studies show that a rise in job insecurity has been directly associated with negative outcomes for employees and organizations (e.g., De Witte, Pienaar, & De Cuyper, 2016). These outcomes are categorized into different types and levels. For example, Sverke, Hellgren, & Näswall, (2002) have divided these outcomes into individual and organizational outcomes based on their time of emergence (see Table 1).

Table 1. A classification of the possible consequences of job insecurity

		Focus of reaction	
		Individual	Organizational
Type of reaction	Immediate	<p><i>Job attitudes</i> (e.g., job satisfaction) (e.g., job involvement)</p>	<p><i>Organizational attitudes</i> (e.g., organizational commitment) (e.g., organizational trust)</p>
	Long-term	<p><i>Health and well-being</i> (e.g., physical health) (e.g., mental health)</p>	<p><i>Work-related behavior</i> (e.g., job performance) (e.g., turnover intention)</p>

Source: Sverke et al. (2002)



Nella, Panagopoulou, Galanis, Montgomery, and Benosl (2015) presented a different classification of job insecurity outcomes. They categorized these outcomes into *emotional* (i.e., psychosomatic symptoms, loss of self-esteem, anxiety, and minor psychiatric symptoms), *physiological* (i.e., blood pressure, heart rate), *behavioral* (i.e., exercise, dietary habits, and sleep), and *workplace* (i.e., increased use of healthcare services and decreased compliance with occupational safety regulations) outcomes. In a recent categorization, Vander Elst, De Cuyper, Baillien, Niesen, and De Witte (2016) divided possible outcomes of job insecurity into job strains and coping reactions (Table 2). Job strains contain work-related strains (e.g., low vigor) and general strains (e.g., mental health complaints) and coping reactions include psychological coping reactions (e.g., low job satisfaction) and behavioral coping reactions (e.g., low self-rated performance). These different categorizations gave us insights into organization of our research outcomes. In this respect, we base the second and third chapters on the views of Sverke et al. (2002). We categorize the well-being related outcomes into psychological and behavioral well-being. In the fourth chapter, following Vander Elst, De Cuyper, Baillien, Niesen, and De Witte (2016), we categorize the research outcomes into job strains and coping reactions.

Table 2. A classification of the possible outcomes of job insecurity

Job Strains			
Work-related strains		General strains	
Low vigour	Need for recovery	Mental health complaints	Physical health complaints
Coping Reactions			
Psychological Coping Reactions		Behavioral Coping Reactions	
Low job satisfaction	Low organizational commitment	Low self-reported performance	Low IWB ²

Source: Vander Elst, De Cuyper, Baillien, Niesen, and De Witte (2016)

² IWB refers to innovative work behaviors



Job Insecurity: Definitions and Types

Job insecurity was initially defined as a sense of powerlessness to maintain desired continuity in a threatened job situation (e.g., Greenhalgh & Rosenblatt, 1984, p. 438). This definition was further developed by contemporary researchers (e.g., Vander Elst, De Cuyper & De Witte, 2010; Hellgren, Sverke, & Isaksson, 1999) who divided it into quantitative and qualitative job insecurity. Quantitative job insecurity relates to the overall concern of an employee about the continued existence of the job in the future (Vander Elst, De Cuyper & De Witte, 2011). Qualitative job insecurity is introduced as the perceived threat of losing valued features of the job such as deterioration of working conditions, lack of career opportunities, and salary reduction (De Witte, 2005; Hellgren, Sverke, & Isaksson, 1999). Previous studies found that both quantitative and qualitative job insecurity have detrimental effects on employees and organizations (e.g., De Witte, De Cuyper, Handaja, Sverke, Näswall, & Hellgren, 2010). In this thesis, the effect of both types of job insecurity on well-being related outcomes will be studied in Iran, Belgium, and U.S. The replication of these effects not only allows us to understand the similar reactions of employees to perceived job insecurity in different countries, but also it allows us to generalize our findings from a country to another. Furthermore, it can determine the extent to which each of the job insecurity types may negatively influence the outcomes. This is one of the specific contributions of this Ph.D. thesis.

Although job insecurity has been frequently studied, less is known about the moderating variables that can significantly buffer or amplify the association between job insecurity and well-being related outcomes. This can be a more important issue for qualitative job insecurity. This is because very few studies have addressed the moderators of qualitative job insecurity-wellbeing compared with those of quantitative job insecurity-wellbeing. It has been found that some psychological characteristics of employees can moderate the negative outcomes of job insecurity at the workplace. This encouraged researchers to look for psychological variables that have the potential to reduce the link between perceived job insecurity and strains experienced by employees. Consistent with this line of research, researchers found that factors such as perceived control (Schreurs, Van Emmerik, Notelaers, & De Witte, 2010), social support (Lim, 1996), employability (Silla, De Cuyper, Gracia,



Peiró, De Witte, 2009), communication (Schweiger & DeNisi, 1991), participation in decision making (Parker, Chmiel & Wall, 1997), and organizational justice or effort-reward balance (Greenberg & Lind, 2000) reduce the association between job insecurity and negative outcomes. In line with these researchers, we propose to examine two groups of individual-based moderators which are divided into cognitive moderators and attitudinal moderators. Cognitive moderators focus on the appraisal of an individual, of a situation/threat, and include hindrance and challenge appraisals. Attitudinal moderators include Boundaryless Career Orientation (BCO) which is the attitude of an individual to work beyond the boundaries of a single employment setting. Boundaryless career orientation consists of two dimensions: boundaryless mindset and organizational mobility preference. Boundaryless mindset refers to a general attitude of transcending organizational boundaries by feeling comfortable in interacting with people from different organizations and seeking out opportunities for experiencing new situations, resulting in beneficial outcomes for the individual (e.g. providing the opportunity to enhance skills and knowledge). Organizational mobility preference refers to an individuals' tendency towards organizational embeddedness (Briscoe, Hall, & Demuth, 2006). Therefore, it is concerned with the preference of an individual for job security and long-term employment (Enache, González, Castillo, & Lordan, 2012). These moderators are proposed as personal resources that have the potential to moderate the association between job insecurity and strains. They will be further discussed in the following sections. As such, the other focus of this Ph.D. thesis is to identify and to test the role of psychological factors that have the potential to moderate (buffer or amplify) the association between job insecurity and its outcomes. In this regard, both types of job insecurity (quantitative and qualitative) will be used to test the effects of these moderators. Also, in the studies of this Ph.D. thesis, we categorize the well-being related outcomes of job insecurity as either psychological outcomes or behavioral outcomes. We chose to test those moderators that are untested, novel and are related to the personal resources of employees. In each study, we will examine one of these moderators between job insecurity and outcomes. By testing the new moderators, we will attempt to develop the number of psychological variables that are known as personal resources in the conservation of resources theory. Secondly, by replicating these hypotheses in different countries we will gain more research evidence for the propositions of cognitive appraisal theory.



Job insecurity: Theories Used

Job insecurity is situated between employment and unemployment because it targets individuals who are employed but are threatened by the perception of unemployment (De Witte, 2005). The outlook that job insecurity as a job stressor leads to strains among employees is supported by many researchers and studies (De Witte, 2005; Probst, 2008; Sverke, Hellgren, & Näswall, 2002). Most scientists apply cognitive appraisal theory (Lazarus & Folkman, 1984) to explain how job insecurity produces a wide range of negative outcomes among employees (e.g., Cheng & Chan, 2008). According to cognitive appraisal theory (Lazarus & Folkman, 1984), when an individual encounters a situational stressor (i.e., job insecurity), he/she makes a primary appraisal of the threat. *Primary appraisal* is an individual's decision about the significance of an event as positive, negative, controllable, challenging or stressful. Secondary appraisals address what responses an individual could make in this threatening situation. Secondary appraisals concern evaluations of factors such as the personal resources to regulate the stressful situation (Barsky, Kaplan, & Beal, 2011; Vander Elst, Richter, Sverke, Näswall, De Cuyper, & De Witte, 2014). According to this theory, the primary appraisals are divided into hindrance and challenge appraisals. Hindrance appraisals are mainly associated with the appraisal of threats as "losses or harms" that are anticipated to happen but still have not occurred. Challenge appraisals are associated with the appraisal of threats as opportunities for "growths or gains" in a situation that contribute to goal achievement and personal development (Barsky, Kaplan, & Beal, 2011). These appraisals determine if an event or aspect of the setting is perceived as a threat or an opportunity (Webster, Beehr, & Love, 2011). Because of the two different appraisals, one may interpret the same situational stressor in two different ways (Hobfoll, 1989). Because of its particular framework this theory provides a solid foundation to understand: 1) how a situational stressor is perceived by an individual, 2) how the characteristics of a situation/event can influence the perception of an individual of a stressor, and 3) how the appraisals of an individual associate with the negative outcomes that individuals may experience. These features led us to select cognitive appraisal theory as a well-matched theory to develop the hypotheses and to discuss our results. We apply this theory in studies 1, 2, 3, 4 and 5 of this thesis to explain how job insecurity is associated with various well-being related outcomes.



Although cognitive appraisal theory provided the theoretical context to develop most of our hypotheses, an additional theory was needed to explain the role of moderators of the job insecurity-outcomes relationship. As such, we apply Conservation of Resources Theory (COR) (Hobfoll, 1989) as a supportive theory to further explain how potential personal resources of employees such as cognitive appraisals (both challenge and hindrance) and BCO can moderate the association between job insecurity and its outcomes.

According to this theory, “individuals and groups seek to acquire and maintain resources that they can apply to accommodate, withstand, or overcome potential or actual threats” (Hobfoll, 1998, 1989; Truxillo, Bauer, & Erdogan, 2016, p443). In COR theory, resources are defined as objects, conditions, personal characteristics, and energies that are either themselves valued for survival, directly or indirectly or that serve as a means of achieving these resources (Hobfoll, 1989, P 516; Foa & Foa, 1974). Object resources have a physical presence (*i.e.*, clothing, shelter). Condition resources are structures or states (*i.e.*, status at work, good health) that allow access to or the possession of other resources. Personal resources include skills and traits (*i.e.*, occupational skills, self-esteem). Energy resources (*i.e.*, money, knowledge) are those whose value is derived from their ability to be exchanged for other resources. Stress occurs when there is a loss of resources or a threat of loss. Indeed, stressful or traumatic events consume these resources and reduce the ability of individuals to properly react to stressors. Those with fewer resources are more vulnerable to resource loss, less capable of resource gain, and highly risk-averse, thus they often opt to maintain existing resources rather than risk resource depletion (Hobfoll & Leiberhan, 1987; Hobfoll, 1998). According to Hobfoll (1989), the impact of resource loss far outweighs the impact of equivalent resource gain. Nonetheless, individuals and social units (including organizations and industries) with greater resources are often less vulnerable to resource loss, more capable of resource gain, and more 'elastic' (*i.e.*, able to take risks) than their resource-challenged counterparts. Therefore, resources must be invested to gain additional resources and to offset the potential or actual loss of resources (Hobfoll, 1998). The selection of this theory is based on its characteristics such as: 1) it helps us to understand what the personal resources of individuals are, 2) helps to understand how the personal resources interact with stressors, 3) and it helps to understand how the stressors consume personal resources and result in negative outcomes. We apply this theory in study 1, 2, 4 and 5 of this thesis to explain how personal



resources of employees moderate the link between job insecurity and a wide range of outcomes.

Data, Participants, and Countries Included

This thesis builds upon five studies. These studies were conducted in the three countries of Iran, Belgium and U.S. In all, 1975 white and blue collar employees were sampled. We chose samples from these three countries for the following reasons. First, we chose Iran since the country has been dealing with international sanctions for the past 12 years because it has been developing its nuclear program. It has been reported that these sanctions have negatively influenced the rate of job insecurity in Iran and provided a suitable context to study this work stressor in Iran (e.g., Gal & Minzili, 2011; Setayesh & Mackey, 2016). Secondly, Belgium is one of the countries that has been experiencing an economic crisis in recent years. This crisis intensified the rate of job insecurity in Belgium and provided a suitable context to study job insecurity (De Witte, De Cuyper, Vander Elst, Vanbelle, Niesen, 2012). Thirdly, the economic crisis started in the U.S. in 2008 and intensified the rate of job insecurity in that country, it has continued until the recent years (Briscoe, Schuler, & Tarique, 2012). Although these causes might not be very similar, they refer to crises that could have potentially intensified the rate of job insecurity in any of these countries. All the original data was gathered using written and online surveys. Three of the five data sets were collected previously and two other data sets were collected during the Ph.D. development. These studies, based on their research aims, are divided into two categorizations: those that test the impact of cognitive moderators such as hindrance and challenge appraisals (e.g., study 1, 2 and 3) and those that test the impact of attitudinal moderators such as boundaryless career orientation (e.g., study 4 and 5) in the association between job insecurity and well-being related outcomes.

In the second chapter, we presented a 2-country cross-sectional study to a) replicate previous findings on the association between job insecurity and well-being related outcomes, and to b) test the moderating role of cognitive appraisals of job insecurity in this association. More specifically, in the first chapter, we examined the impact of quantitative job insecurity on psychological outcomes, such as job satisfaction and emotional exhaustion in Belgium and Iran. The replication of findings allowed us to expand our results from a national to an



international level. Moreover, by testing the moderating role of cognitive appraisals of job insecurity, namely challenge and hindrance appraisals, we examine the extent to which these appraisals can influence the association between quantitative job insecurity and outcomes in each country. The third chapter includes a 1-country cross-sectional study in which we only focus on qualitative job insecurity rather than quantitative job insecurity. We attempt to further develop our understanding of the concept of challenge and hindrance appraisal of job insecurity in a rather different situation in which qualitative job insecurity might be a significant issue in Iran. This likelihood might be due to the international sanctions against Iran because of its nuclear program. It has been estimated that these sanctions have negatively influenced the job features of employees in Iran in the past 12 years (e.g., Gal & Minzili, 2011; Setayesh & Mackey, 2016). In this study, we focused on the specific association between qualitative job insecurity and psychological (e.g., job satisfaction & emotional exhaustion) and behavioral (e.g., absenteeism & presenteeism) outcomes. We analyze: first, how this specific type of job insecurity is associated with the outcomes, and second, how the challenge and hindrance appraisals of job insecurity may strengthen or weaken these associations.

In the fourth chapter, we used existing sets of data from two countries to develop a 2-country cross-sectional study to replicate the previous findings on the association between quantitative job insecurity and various outcomes and to test the role of attitudinal moderators such as boundaryless career orientation (BCO) in the same association. In these studies, data was collected from U.S. and Belgium. We tested the association between quantitative job insecurity and a range of job strains (i.e., low life satisfaction) and coping reactions (i.e., turnover intentions). More importantly, we paid particular attention to the concept of boundaryless career orientation of employees to explore how this psychological attitude moderates the association between job insecurity and these outcomes. These findings allowed us to compare the moderating power of this variable in the job insecurity-outcomes link across U.S. and Belgium. Table 3 summarizes these five studies and core variables used in each study respectively.



Table 3. Studies included in this Ph.D. thesis based on country, sample, and variables

	Chapter	Study	Countries included	Sample size	Antecedent	Moderator	Outcomes
Cognitive moderators	Chapter II	1	Belgium	348	Quantitative job insecurity	Challenge appraisals Hindrance appraisals	Job satisfaction Emotional exhaustion
		2	Iran	306	Quantitative job insecurity	Challenge appraisals Hindrance appraisals	Job satisfaction Emotional exhaustion
	Chapter III	3	Iran	250	Qualitative job insecurity	Challenge appraisals Hindrance appraisals	Job satisfaction Emotional Exhaustion Absenteeism Presenteeism
Attitudinal moderators	Chapter IV	4	USA	1071	Quantitative job insecurity	Boundaryless career orientation	Life satisfaction Job burnout Turnover intentions
		5	Belgium	348	Quantitative job insecurity	Boundaryless career orientation	Life satisfaction Job burnout Turnover intentions



Short Conclusion

This Ph.D. thesis attempts to establish the association between quantitative and qualitative job insecurity and a wide range of well-being related outcomes in three different contexts. Consistent with previous studies, all studies included in this thesis showed that the negative association between job insecurity and these outcomes is context-free and can be found world-widely or at least in the three countries we studied. Besides, regardless of the environment-based factors, testing the specific types of individual-based moderators in the job insecurity-wellbeing association can determine the weight of these factors in intensifying or reducing this association. Furthermore, the findings of these three studies will enrich the understanding of the theoretical foundations of job insecurity, particularly where stress theories such as cognitive appraisal theory and conservation of resources theory are discussed. In addition, this thesis contains two innovations. First, we adapted a new scale to measure the challenge vs. hindrance appraisals of employees toward job insecurity. Secondly, by focusing on individual-based moderators we divided them into cognitive moderators and attitudinal moderators and tested their potential moderating role separately. This categorization might be used in the future studies.



References

- Barsky, A., Kaplan, S. A., & Beal, D. J. (2011). Just feelings? The role of affect in the formation of organizational fairness judgments. *Journal of Management*, 37(1), 248-279. doi:10.1177/0149206310376325
- 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
- Briscoe, D., Schuler, R., & Tarique, I. (2012). *International human resource management: Policies and practices for multinational enterprises* (4th ed.). New York City, NY: Routledge.
- Cheng, G. H., & Chan, D. K. (2008). Who Suffers More from Job Insecurity? A Meta-Analytic Review. *Applied Psychology*, 57(2), 272-303. doi:10.1111/j.1464-0597.2007.00312.x
- De Beer, L. T., Rothmann Jr., S., & Pienaar, J. (2015). Job insecurity, career opportunities, discrimination and turnover intention in post-apartheid South Africa: examples of informative hypothesis testing. *The International Journal of Human Resource Management*, 27(4), 427-439. doi:10.1080/09585192.2015.1020446
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4): 1-6. doi:10.4102/sajip.v31i4.200
- De Witte, H., Pienaar, J. & De Cuyper, N. (2016), Review of 30 Years of Longitudinal Studies on the Association Between Job Insecurity and Health and Well-Being: Is There Causal Evidence?. *Australian Psychologist*, 51: 18–31. doi:10.1111/ap.12176
- De Witte, H., De Cuyper, N., Handaja, Y., Sverke, M., Näswall, K., & Hellgren, J. (2010). Associations Between Quantitative and Qualitative Job Insecurity and Well-Being. *International Studies of Management and Organization*, 40(1), 40-56. doi:10.2753/imo0020-8825400103
- De Witte, H., De Cuyper, N., Vander Elst, T., Vanbelle, E., Niesen, W. (2012). Job Insecurity: Review of the Literature and a Summary of Recent Studies from Belgium. *Romanian Journal of Applied Psychology*. 14 (1), pp. 11-17



- Enache, M., González, I., Castillo, D., & Lordan, O. (2012). Protean and boundaryless career attitudes scales: Spanish translation and validation. *Intangible Capital*, 8(1). doi:10.3926/ic.309
- Falco, A., Dal Corso, L., De Carlo, A., Di Sipio, A. (2008). Effects of temporary job contracts on the well-being of individuals and organizations. *TPM, Testing, Psychometrics, Methodology in Applied Psychology*, Vol.15 (4), pp.193-209.
- Foa, U. G. & Foa, E. (1974). *Societal structures of the mind*. Springfield, IL: Charles C. Thomas.
- Gal, Y., & Minzili, Y. (2011). *The Economic Impact of International Sanctions on Iran*. Paper presented at The Eleventh Annual Herzliya Conference, Israel.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job Insecurity: Toward Conceptual Clarity. *Academy of Management Review*, 9(3), 438-448. doi:10.5465/amr.1984.4279673
- Greenberg, J. & Lind, E. (2000). The pursuit of organizational justice: From conceptualization to implication to application. In C. Cooper & E. Locke (Eds.), *Industrial and organizational psychology. Linking theory with practice*. Oxford: Blackwell, pp. 72-108.
- Hamad, R., Modrek, S., & Cullen, M. R. (2015). The Effects of Job Insecurity on Health Care Utilization: Findings from a Panel of U.S. Workers. *Health Serv Res*, 51(3), 1052-1073. doi:10.1111/1475-6773.12393
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A Two-dimensional Approach to Job Insecurity: Consequences for Employee Attitudes and Well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195. doi:10.1080/135943299398311
- 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. (1998). Stress, Culture, and Community. doi:10.1007/978-1-4899-0115-6
- Hobfoll, S. E., & Leiberman, J. R. (1987). Personality and social resources in immediate and continued stress resistance among women. *Journal of Personality and Social Psychology*, 52(1), 18-26. doi:10.1037/0022-3514.52.1.18
- László, K. D., Pikhart, H., Kopp, M. S., Bobak, M., Pajak, A., Malyutina, S., ... Marmot, M. (2010). Job insecurity and health: A study of 16 European countries. *Social Science &*



- Medicine*, 70(6), 867-874. doi:10.1016/j.socscimed.2009.11.022
- Schaufeli, W. B. (2016), Job Insecurity Research is Still Alive and Kicking Twenty Years Later: A Commentary. *Australian Psychologist*, 51: 32–35. doi: 10.1111/ap.12201
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and, coping*. NY: Springer.
- Lim, V. K. (1996). Job Insecurity and Its Outcomes: Moderating Effects of Work-Based and Nonwork-Based Social Support. *Human Relations*, 49(2), 171-194. doi:10.1177/001872679604900203
- Nella, D., Panagopoulou, E., Galanis, N., Montgomery, A., & Benos, A. (2015). Consequences of Job Insecurity on the Psychological and Physical Health of Greek Civil Servants. *BioMed Research International*, 2015, 1-8. doi:10.1155/2015/673623
- OECD. (2016). Unemployment rate among European Union countries. Retrieved from <https://data.oecd.org/unemp/unemployment-rate.htm>
- Parker, S. K., Chmiel, N., & Wall, T. D. (1997). Work characteristics and employee well-being within a context of strategic downsizing. *Journal of Occupational Health Psychology*, 2(4), 289-303. doi:10.1037//1076-8998.2.4.289
- Probst, T. M. (2005). Countering the Negative Effects of Job Insecurity Through Participative Decision Making: Lessons From the Demand-Control Model. *Journal of Occupational Health Psychology*, 10(4), 320-329. doi:10.1037/1076-8998.10.4.320
- Probst, T. M. (2008). Job Insecurity. In J. Barling & C. L. Cooper (Eds.), *The SAGE Handbook of Organizational Behavior*, (1):178-195. London: Sage.
- Schaufeli, W. B. (2016), Job Insecurity Research is Still Alive and Kicking Twenty Years Later: A Commentary. *Australian Psychologist*, 51: 32–35. doi: 10.1111/ap.12201
- Schreurs, B., Van Emmerik, H., Notelaers, G., & De Witte, H. (2010). Job insecurity and employee health: The buffering potential of job control and job self-efficacy. *Work & Stress*, 24(1), 56-72. doi:10.1080/02678371003718733
- Schweiger, D. M., & Denisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal*, 34(1), 110-135. doi:10.2307/256304
- Setayesh, S., & Mackey, T. K. (2016). Addressing the impact of economic sanctions on Iranian drug shortages in the joint comprehensive plan of action: promoting access to



- medicines and health diplomacy. *Globalization and Health*, 12(1):31. doi:10.1186/s12992-016-0168-6
- 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
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264. doi:10.1037//1076-8998.7.3.242
- Truxillo, D. M., Bauer, T., & Erdogan, B. (2016). *Psychology and work: Perspectives on industrial and organizational psychology*. P443.
- Turner, M., & Lingard, H. (2016). Improving workers' health in project-based work: job security considerations. *International Journal of Managing Projects in Business*, 9(3), 606-623. doi:10.1108/ijmpb-08-2015-0070
- Vander Elst, T., De Cuyper, N., & De Witte, H. (2010). The role of perceived control in the relationship between job insecurity and psychosocial outcomes: moderator or mediator? *Stress and Health*, 27(3), 215-227. doi:10.1002/smi.1371
- Vander Elst, T., De Cuyper, N., Baillien, E., Niesen, W., & De Witte, H. (2016). Perceived Control and Psychological Contract Breach as Explanations of the Relationships Between Job Insecurity, Job Strain and Coping Reactions: Towards a Theoretical Integration. *Stress Health*, 32(2), 100-116. doi:10.1002/smi.2584
- Vander Elst, T., Richter, A., Sverke, M., Näswall, K., De Cuyper, N., & De Witte, H. (2014). Threat of losing valued job features: The role of perceived control in mediating the effect of qualitative job insecurity on job strain and psychological withdrawal. *Work & Stress*, 28(2), 143-164. doi:10.1080/02678373.2014.899651



2017

Chapter II:

Quantitative Job Insecurity and Cognitive Moderators



Hindrance versus Challenge Appraisals: An Amplifier or Buffer in the Face of Quantitative Job Insecurity in Belgium and Iran?

This chapter is adapted from the following publications:

- Charkhabi, M.,** De Witte, H., & Pasini, M. (2017). Hindrance versus Challenge Appraisal: An Amplifier or Buffer in the Face of Job Insecurity in Belgium and Iran. *Journal of Occupational Health Psychology*. Under review.
- Charkhabi, M.,** De Witte, H., & Pasini, M. (2016). Challenge versus Hindrance Appraisals: A Buffer or Amplifier in the Face of Job Insecurity in the Belgium and Iran. WAOP Conference, Rotterdam, Netherlands. Oral presentation. 25th Nov 2016
- Charkhabi, M.,** Pasini, M., & De Witte, H. (2015). Job insecurity: Hindrance or Challenge? A Pilot Study on a Job Insecurity Appraisal Scale by the Cognitive Interview Method. EAWOP Congress, Oslo. Norway. Poster presentation. May 20th-23rd 2015

Abstract

According to cognitive appraisal theory, when individuals are faced with a situational stressor they may perceive it as either a hindrance or a challenge. The aim of this study is to determine the extent to which hindrance and challenge appraisals of job insecurity may amplify or buffer the link between job insecurity and well-being-related outcomes (job satisfaction and emotional exhaustion). Based on cognitive appraisal theory, we predict a hindrance appraisal of job insecurity to amplify and a challenge appraisal of job insecurity to buffer the association between job insecurity and well-being-related outcomes. We used a 2-country study with a sample size of 654 employees from Belgium (N = 348) and Iran (N = 306). Hypotheses were tested using the total sample and the two separate samples respectively. Respondents from diverse organizations were recruited and completed scales on quantitative job insecurity, hindrance vs. challenge appraisals of job insecurity, job satisfaction, and emotional exhaustion. Results indicated that hindrance appraisals amplified the association between job insecurity and emotional exhaustion in the total and Belgian samples. Challenge appraisals did not moderate the job insecurity-well-being association in both countries. In all, only one out of eight interactions was found significant, when analyzing the country data separately. Cognitive appraisals of job insecurity thus hardly influence the association between job insecurity and well-being-related outcomes.

Keywords: *job insecurity; hindrance versus challenge appraisals; job satisfaction; emotional exhaustion*



Introduction

Job insecurity, as a worldwide chronic work stressor, has attracted increased research attention since the commencement of the 21st century (i.e., McDonough, 2000; Probst, 2008; De Witte, Vander Elst, & De Cuyper, 2015). Most studies explored the detrimental effects of this stressor on employees and organizations (i.e., De Witte, 2005; Jiang & Probst, 2015). Job insecurity is mainly defined as an overall concern of an employee about the continued existence of the job in the future (Vander Elst, De Cuyper & De Witte, 2010). Recent studies show that the current economic climate, instability in employment conditions, and large-scale structural changes may initiate or intensify the perception of job insecurity among employees (De Witte et al., 2015; Schaufeli, 2016).

A significant number of studies show that an increase in job insecurity is associated with an increase in various strains. At the individual level, job insecurity is related to negative outcomes such as psychological distress and emotional exhaustion (e.g., Cheng & Chan, 2008; Piccoli & De Witte, 2015). At the organizational level, job insecurity is associated with a lower job satisfaction and job commitment and a higher turnover intention (Furåker & Berglund, 2013; Lim, Baek, Chung, & Lee, 2014; Wang, Lu & Siu, 2015; Hamad, Modrek, Cullen, 2015). Consequently, studying the association between job insecurity and well-being-related outcomes with the aim of identifying moderators that may weaken or strengthen their association has significant practical and theoretical implications.

We focus on two possible cognitive moderators, namely hindrance and challenge appraisals of job insecurity, which have the potential to increase or decrease the detrimental effects of job insecurity on the outcomes. Consistent with previous studies, we use the job satisfaction and the emotional exhaustion as the two popular well-being related outcomes of job insecurity (e.g., Sverke, Hellgren, & Näswall, 2002). Job satisfaction is defined as the degree to which employees have a positive affective orientation towards employment by the organization (Price, 1997). Emotional exhaustion is a chronic state of physical and emotional depletion that results from excessive job, personal demands, and/or continuous stress (Maslach & Leiter, 2008; Piccoli & De Witte, 2015).



Contributions of the Current Study

Most studies show that job insecurity is a subjective phenomenon which may vary from an individual to another (Sverke, Hellgren, & Näswall, 2002; De Witte, 2005). In this respect, studies show that various personality and attitudinal moderators can significantly influence the impact job insecurity on various well-being related outcomes (i.e., Piccoli & De Witte, 2015; Vander Elst, Van den Broeck, De Cuyper, De Witte, 2014) but no study thus far considered how the employees' cognitive appraisals of job insecurity affect this association. Based on cognitive appraisal theory (Lazarus & Folkman, 1984), we distinguish two types of appraisals, namely hindrance versus challenge appraisals, as two cognitive moderators which may potentially influence the job insecurity-well-being association. Hindrance appraisals are related to the appraisal of threats as "harms or losses" that have not yet taken place but are anticipated to occur. Challenge appraisals are associated with the appraisal of threats as "gains or growths" in a situation and are recognized as the facilitator of personal growth and goal attainment at the individual level (Barsky, Kaplan, & Beal, 2011). Empirically testing the moderating role of these two appraisals in the job insecurity-well-being association is the first aim of this research. We will apply cognitive appraisal theory (Lazarus & Folkman, 1984) as main theory and conservation of resources theory (Hobfoll, 1989) as a supplementary theory to make predictions regarding the moderation effects of both appraisals. As a second aim, we will test our hypotheses across two countries, Belgium and Iran, to estimate to what extent the model is invariant in both countries.

Hindrance versus Challenge Appraisals: Amplifier or Buffer?

The view of job insecurity as a stressor that causes various strains has been shared by many current researchers (e.g., De Witte et al., 2015; De Witte, Pienaar & De Cuyper, 2016; Sverke, Hellgren, Näswall, 2002; Probst, Barbaranelli, Petitta, 2013). Although this view has widely been corroborated (e.g., De Witte, 2005; Cheng & Chan, 2008; Schaufeli, 2016), still not much is known about the role of employee's cognitive appraisals in the job insecurity-well-being link. Job insecurity is different from the appraisal of job insecurity. As defined, job insecurity is a concern about the continued existence of the job in the future and is considered to be a chronic work stressor. The appraisal of an employee of job insecurity can be negative (threatening) or positive (challenging). We use cognitive appraisal theory (Lazarus &



Folkman, 1984) to explain how the cognitive appraisals of job insecurity may influence the link between job insecurity and well-being. According to this theory, characteristics of a situation and personal resources of an individual result in primary and secondary appraisals of a stressor/event. Primary appraisal is thought to determine if an event or aspect of the environment is perceived as a hindrance or a challenge, and is known as one of the main psychological mechanisms linking stressors to strains (Webster, Beehr, & Love, 2011). An individual with hindrance appraisals focuses on the negative aspects of a threat (i.e., harms or losses) by overestimating negative aspects and underestimating the positive aspects of the threat. On the contrary, an individual with challenge appraisals concentrates on the positive aspects of a threat (e.g., gains or growths) by overestimating positive aspects and underestimating the negative aspects of the threat. Secondary appraisals involve evaluating one's capacity to cope/deal with a situation. This concerns evaluations of factors such as the personal resources of individuals to regulate a stressful situation/event (Barsky, Kaplan, & Beal, 2011; Weiss, Suckow, & Cropanzano, 1999; Vander Elst, Richter, Sverke, Näswall, De Cuyper, & De Witte, 2014). The implication of this categorization (hindrance vs. challenge) is that the same stressor can be interpreted in both ways by different persons (Hobfoll, 1989) and that one person can even appraise a stressor as a hindrance and challenge simultaneously (Lazarus & Folkman, 1984). For example, studies show that workload, as a popular work-related stressor, can be appraised as a challenge (e.g., Marsh, 2001) or a hindrance (e.g., Cavanaugh, Boswell, Roehling, & Boudreau; 2000). However, this distinction still seems to be unclear for job insecurity, since the criteria of studies for considering job insecurity as a hindrance (i.e., De Witte, Pienaar, & De Cuyper, 2016) or challenge (i.e., Glavin & Schieman, 2014) have been based on its association with the outcomes of job insecurity rather than on the appraisal of job insecurity itself. Since scholars thus far have not been analyzing whether job insecurity as such (regardless of its relationship with outcomes) is appraised as a challenge or a hindrance, this research intends to fill this research gap by the direct measurement of hindrance and challenge appraisals of job insecurity. Furthermore, no study could be found to show how cognitive appraisals of job insecurity influence the association between job insecurity and well-being. This study aims to fill this research gap by examining the moderating role of hindrance and challenge appraisals of job insecurity. We expect a hindrance appraisal of job insecurity to increase the association between job insecurity and



well-being related outcomes, and a challenge appraisal of job insecurity to decrease the same association.

Further explanation can be gained from the conservation of resources theory (COR) (Hobfoll, 1989). According to this theory, “individuals seek to acquire and maintain resources that they can apply to accommodate, withstand, or overcome threats” (Truxillo, Bauer, Erdogan, 2016, *p443*). They might accumulate material resources (e.g., homes, clothes, and food), personal resources (e.g., self-esteem, hope, and optimism), condition resources (e.g., status, social support, and financial security), and energy resources (e.g., time, money, and knowledge). Stress occurs when there is a loss of resources or a threat of loss. Indeed, stressful or traumatic events consume these resources and reduce the ability of individuals to react to stressors properly. Following COR, individuals who are threatened by job insecurity and who do not have sufficient personal resources may inefficiently deal with the stressor. This might be because the hindrance appraisal of job insecurity may threaten or consume additional personal resources of individuals compared to challenge appraisals (Hobfoll, 1989). Another possibility could be that hindrance appraisals as a persistent threat to valued resources (i.e., financial security) may provoke additional concerns and lead to severe negative emotional responses (Hobfoll, 2001). As such, a hindrance appraisal of job insecurity may exacerbate the negative impact of job insecurity on well-being-related outcomes among employees. This leads to the following hypothesis:

Hypothesis 1: The appraisal of job insecurity as a hindrance will amplify: a) the negative association between job insecurity and job satisfaction; b) the positive association between job insecurity and emotional exhaustion.

On the other hand, challenge appraisals might be positively related to a person’s perceived ability to deal with a stressor. This is because individuals with challenge appraisals believe that they possess the necessary abilities to deal efficiently with demands (Webster, Beehr, & Christiansen, 2010). This view is also consistent with social learning theory (Bandura, 1986), which suggests that individuals are more motivated to engage in certain behaviors when they perceive that they have the means or potential to meet the objective of the demand.



As noted earlier, a hindrance appraisal of job insecurity may frustrate or pose a threat in reaching one's goals (obstacles that can be hardly overcome). A challenge appraisal, on the contrary, may facilitate goal achievement for individuals (obstacles that you think you can easily overcome) (Webster et al., 2011). By definition, hindrance appraisals may constrain or interfere with a person's perceived ability to fulfill a job demand or deal with a work stressor. On the other hand, challenge appraisals might be positively related to a person's perceived ability to fulfill a job demand or deal with a situational stressor such as job insecurity.

In order to explain further how challenge appraisals may reduce the job insecurity-well-being association, we refer to recent studies that found an association between challenge appraisals and emotions (Searle & Auton, 2015). According to these findings, challenge appraisals can create a positive affect by stimulating eagerness, excitement, and enthusiasm. This positive affect is assumed to be the product of the blending between positive valence (feeling good) and activation (feeling energetic) (Warr, Bindl, Parker, & Inceoglu, 2014). Positive affect, as the activated dimension of emotion, may serve to the personal growth of individuals through promoting positive attitudes and encouraging them to overcome stressors/demands for attaining their goals (LePine, LePine & Saul, 2007). It can also be related to the evolutionary function of the stress process, whereby stress stimulates the mobilization of physiological resources to aid survival (Selye, 1976). Following COR, challenge appraisals by developing personal resources may enhance the ability of employees to deal/cope with job insecurity via an increase in positive affect. As a consequence, we may expect a reduction of the job insecurity-well-being association when there is a challenge appraisal of job insecurity. Consequently, we expect a challenge appraisal of job insecurity to buffer the job insecurity-well-being association which leads to the following hypotheses:

Hypothesis 2: The appraisal of job insecurity as a challenge will buffer: a) the negative association between job insecurity and job satisfaction; b) the positive association between job insecurity and emotional exhaustion.

Figure 1 displays the conceptual model of the relationship between the research variables. In this study, hypotheses are tested using two separate moderating paths. First, we aim to test whether hindrance appraisals of job insecurity amplify and challenge appraisals of



job insecurity buffer the job insecurity-well-being relationship. Second, we wish to test these moderation effects in two contexts (Belgium vs. Iran). As shown in Figure 1, we focus on job satisfaction and emotional exhaustion, two popular well-being related outcomes of job insecurity. Numerous studies have shown the harmful impact of job insecurity on these two outcomes (e.g., Burgard, Brand & House, 2009; Piccoli & De Witte, 2015).

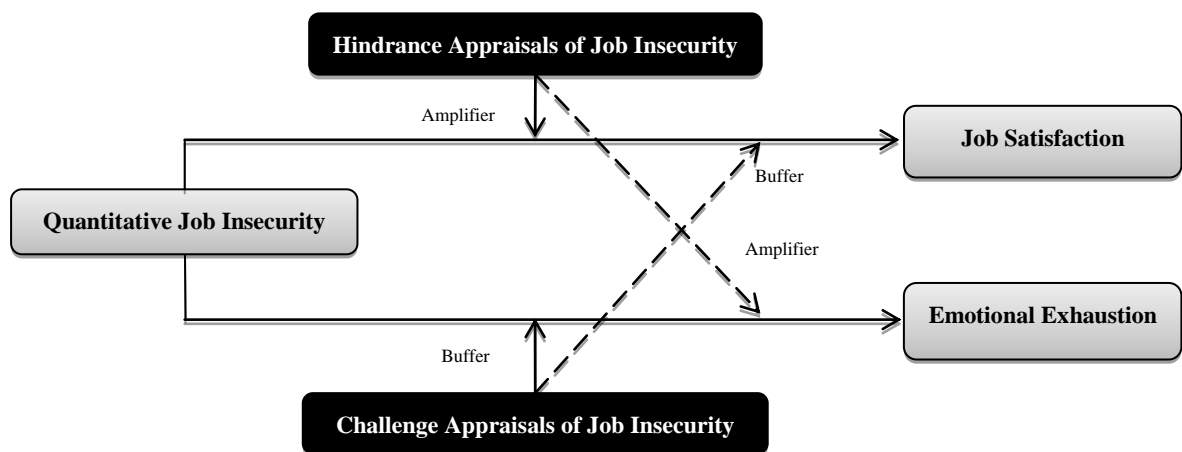


Figure 1. An integrated model of the relationships among the variables

Method

Participants

In order to test our hypotheses, surveys were administered to 654 employees from Belgium ($N = 348$) and Iran ($N = 306$). Belgian employees were sampled from the small and medium-sized public and private companies/organizations³. In the Belgian sample, the response rate was approximately 66%. Of those who completed the survey, 71.84 % were female and 28.16% were male. The mean age of the respondents was 38.82 years. 67.2 % were administrative employees, and 32.8% were professional employees. 90.8% of the respondents had a permanent contract, and 9.2% had a temporary contract. 66.4% were full-time employees whereas 33.6% worked part-time. Finally, 85.35% of respondents had received at least a college diploma while 14.65 % had a high school diploma or less. All were

³ We would like to thank Jens Peeters, a master student in psychology, who collected the data from Belgium for his unpublished master thesis (Peeters, 2014).



selected from sectors as heterogeneous as possible in Belgium, such as; transportation, human resources, finance, government, healthcare, military, and counseling services.

Iranian employees were sampled from a large public hospital located in Iran. In this sample, the response rate was approximately 83%. Participants included 58.82% female and 41.18% male employees from different departments of this hospital. The mean age of the participants was 33.5 years, and their mean work experience was 9.4 years ($SD = 7.83$). 86.6% of the participants were administrative employees (e.g., secretary, IT operator, shift planners, supervisors) and 13.4 % were professional employees (e.g., nurses, medical assistants, and patient transferor, laboratory pathologist, radiologist). 20.3% had a permanent contract whereas 79.7% had a temporary contract. Finally, 88.57% of respondents had received at least a college diploma, while 11.43 % had a high school diploma or less.

Procedure

Concerning Belgian employees, the research staff provided participants with online access to the questionnaire and explained to them the anonymous nature of the data collection with online instructions. Furthermore, participants were requested to participate in the online surveys in the absence of organizational officials. Employees either completed the survey during working hours or at home. Concerning Iranian employees, the research staff after providing participants with informed consent materials explaining the anonymous nature of the data collection and their rights as research participants administered the surveys during their working hours. To ensure that participants were comfortable to respond to the questions, they were informed that only members of the research team would have access to the data. Supervisors were not present when the data were collected.

Measures

Job insecurity. Perceived job insecurity was measured by the four-item job insecurity scale (JIS) developed by De Witte (2000) and validated by Vander Elst, De Witte and De Cuyper (2014). This scale is a global job insecurity measure that corresponds to our conceptualization of job insecurity: it includes items that refer to the threat or the possibility of losing a job, as well as an item that refers to the worries associated with job loss. Furthermore, the JIS has been successfully used in different contexts, countries, and languages (e.g.,



Baillien & De Witte, 2009, in Belgium; Kinnunen, Mauno, & Siltaloppi, 2010, in Finland; Tilakdharee, Ramidial, & Parumasur, 2010, in South Africa). An example item is “*I think I might lose my job in the near future*”. Respondents were asked to rate the items on a scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher numbers reflect higher job insecurity. The reliability (Cronbach alpha) was .87 for the Belgian sample and .77 for the Iranian sample. The original English scale was translated into Persian which is the official language in Iran. All items were double-checked for accuracy by the authors in the two countries.

Emotional exhaustion. The Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach, Jackson & Leiter, 1996) was used to measure emotional exhaustion. The MBI-GS has three sub-scales; however, we only used the five items of the emotional exhaustion subscale. An example item is “*I feel used up at the end of the workday*”. In Belgium, items are scored on a 7-point frequency rating scale ranging from “0” (never) to “6” (daily). In Iran, a 5-point scale has been used, ranging from “1” (never) to “5” (daily)⁴. High scores reflect higher emotional exhaustion. The reliability (Cronbach alpha) was .86 for the Belgian sample and .92 for the Iranian sample. This scale was frequently validated and used in Iran (e.g., Ariapooran, 2014).

Job satisfaction. We used the 4-items scale of job satisfaction developed by Price (1997). An example of an item is “*Most days I am enthusiastic about my job*”. Respondents were asked to rate the items on a five-point Likert scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher numbers reflect higher job satisfaction. The reliability (Cronbach alpha) was .71 for the Belgian version and .72 for the Iranian sample. The original scale was translated from English into the Persian language. All items were double-checked for accuracy by the authors in the two countries.

Hindrance versus challenge appraisals of job insecurity. These appraisals were measured with a scale initially constructed in Belgium (Peeters, 2014) and adjusted by Charkhabi, Pasini, De Witte (2015) in Italy and Iran. The Belgian and Iranian version of the scale was slightly different, and for this study, which also aims to compare the results in both countries, the items in common between the two countries were selected. For this reason, this

⁴ We used an adjusted likert scale for this construct in both countries ranging from 1 (never) to 5 (daily) before we analyzed the data.



version of the scale included 7 items, 3 for hindrance appraisals and 4 for challenge appraisals. An example of an item of the challenge appraisal component is “*Job insecurity gives me the feeling that I can achieve something*”. An item example of the hindrance appraisal component is “*Job insecurity undermines my work efforts*”. Respondents were asked to rate the items on a scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher scores reflect a higher hindrance or challenge appraisal. Items were originally developed in Dutch, and translated into Persian which is the official language in Iran. All items were double-checked for accuracy by the authors in the two countries. The reliability (Cronbach alpha) of the hindrance and challenge components for the Belgian sample were .84 and .81 for the Iranian sample .83 and .70 respectively.

Data analyses

We used *confirmatory factor analysis (CFA)* to test the factorial structure of the hindrance versus challenge appraisals of job insecurity scale using AMOS-21 (Arbuckle, 2005). The CFA was run using the maximum-likelihood method. Because a fit index reflects only a specific aspect of the model fit, a single good value cannot provide enough evidence for a good fit (Kline, 1998; Hu & Bentler, 1999; Vander Elst et al., 2010). Thus, the goodness-of-fit of the models was estimated by means of several indexes that were interpreted relatively to each other (as suggested by Bollen & Long, 1993; Byrne, 2001): Chi-square statistic (χ^2); Comparative fit index (CFI); Tucker-Lewis Index (TLI); Root mean square error of approximation (RMSEA); Standardized Root Mean Square Residual (SRMR); Bayesian Information Criterion (BIC); Akaike’s Information Criterion, single sample cross-validation index (AIC); (6) Expected Cross-Validation Index (ECVI). For the RMSEA, values smaller than 0.08 indicate good fit (Browne & Cudeck, 1993; Hu & Bentler, 1999; Byrne, 2001). Values greater or equal to 0.90 on the CFI and the TLI indicate good fit (Hoyle, 1995). BIC, AIC, and ECVI are used in comparing models: the model with the smallest value of BIC, AIC or ECVI should be chosen as the best. Since the Chi-squared statistic is sensitive to the sample size and tests whether the model shows an exact fit to the data, a finding that is rare, it should not be used as a direct indication for the goodness-of-fit of a model (Weston & Gore, 2006). Hence, it was only used to compare competing models (Weston & Gore, 2006). Moreover, we used measurement invariance analysis to test whether the scale of hindrance vs. challenge



appraisals of job insecurity has the same factor structure across both countries or not. This analysis conceptually allows us to understand “whether the same construct has been measured in different groups” (Chen, 2007, p 465). Based on the framework suggested by Meredith (1993) we performed measurement invariance using AMOS-21 (Arbuckle, 2005) to check metric, scalar and structural covariances invariance. According to Chen (2007) goodness of fit for measurement invariance is determined based on: Root mean square error of approximation (RMSEA), Comparative Fit Index (CFI), and Standardized root mean square residual (SRMR). Finally, to test our moderation hypotheses, a regression model similar to Figure 1 was performed, using Process program developed by Hayes (2012). We investigate the simultaneous effects of both moderators on the association between job insecurity and well-being related outcomes.

Results

Preliminary analyses on the “cognitive appraisals of job insecurity scale”

Before we test our hypotheses, we first tested the factorial structure of the hindrance vs. challenge appraisals of job insecurity scale. Four models were tested and compared on the total sample size ($N = 654$) using CFA (See Table 1). At first, the model with seven items loading on one factor (cognitive appraisal) was estimated (Model 1). This model showed bad fit indexes (RMSEA = .26, CFI = .55, TLI = .10) and some very low factor loading (i.e., .35). To enhance the model indexes, we revised the first model and substituted it with the expected two-dimensional model in which hindrance and challenge appraisals were set as the two correlated latent variables (Model 2). In Model 2, the first factor (challenge appraisal) contained four observed variables and the second factor (hindrance appraisal) three items. Model 2 showed an improvement in all fit indexes (RMSEA = .09, CFI = .94, TLI = .88), but one factor loading (CH1) remained problematic (i.e., .34) and was discarded. Therefore the third model (Model 3) was composed of 6 items and two covariating latent factors (see Figure 2 and Annex 1). Fit indexes were very good (RMSEA = .05, CFI = .98, TLI = .96), and standardized factor loadings ranged from .69 to .81 and were all significantly different from zero. The covariance between the two latent factors was not significant ($r = -.08$, $p = .065$). Model 4 is a model in which the two latent factors did not covariate. The fit indexes were similar to the ones of Model 3 (RMSEA = .05, CFI = .98, TLI = .96). The very similar fit indexes of the two models show that the two models are practically identical and the two



dimensions of the appraisal of job insecurity seem not to be necessarily related. However, on the basis of the parsimony principle, we decided to choose Model 3 as the final model to use for further analyses. The final model, with standardized factor loadings, is shown in Figure 2:



Table 1. Goodness-of-Fit Indicators of the hindrance vs. challenge appraisal scale in the total sample ($N = 654$)

Models	χ^2	df	P-value	$\Delta \chi^2$	Δdf	$p(\Delta \chi^2)$	RMSEA	SRMR	CFI	TLI	BIC	AIC	ECVI
Model 1. One factor - 7 items	645.378	14	.000000	-			.263 (.246 - .281)	.2004	.551	.103	736.12	673.378	1.033
Model 2. Two factors - 7 items with covariance	86.604	13	.000000	558.77	1	.000	.093 (.075 - .112)	.0764	.948	.887	183.827	116.604	0.179
Model 3. Two factors - 6 items With covariance	26.348	8	.000916	60.26	5	.000	.059 (.035 - .085)	.0325	.986	.962	110.609	52.348	0.080
Model 4. Two factors - 6 items Without covariance	29.683	9	.000497	3.34	1	.068	.059 (.037 - .085)	.0463	.984	.962	107.462	53.683	0.082

* CI = 95% confidence interval, Note: χ^2 = chi-square goodness of fit statistic; df = degrees of freedom; RMSEA = Root-Mean-Square Error of Approximation (C.I. in brackets); SRMR=standardized root mean square residual; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; BIC = Bayes Information criterion AIC = Akaike Information Criterion; ECVI = Expected cross-validation index

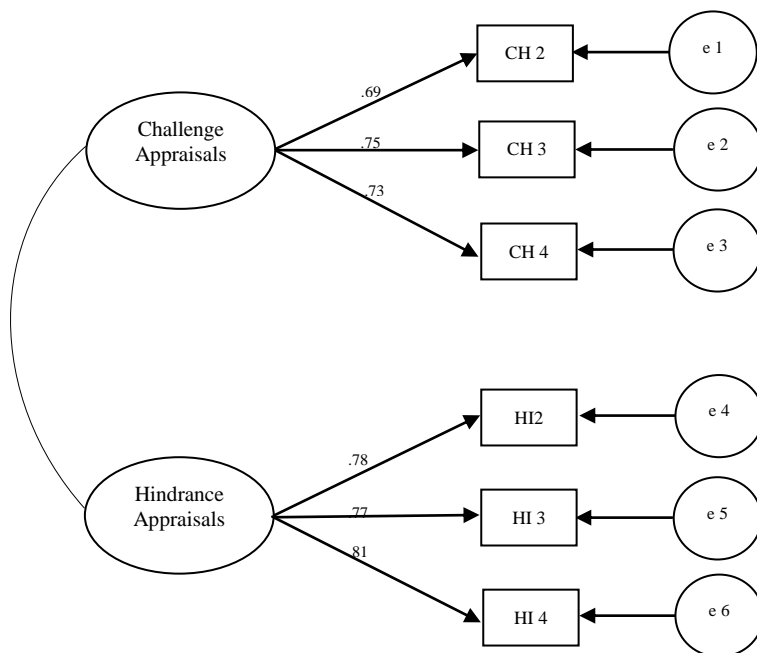


Figure 2. Measurement model of the challenge vs. hindrance appraisals of job insecurity in the total sample ($p < .001$)

In a second step, we tested the measurement invariance of this scale across the two countries, in order to ensure measurement equivalence for the scale of hindrance vs. challenge appraisals of job insecurity in Belgium and Iran. Table 2 summarizes the fit indexes for each of the tested models. Looking at Model 1, there is strong evidence of configural invariance: this means that the same model is able to fit data from Iranian sample and Belgian sample when no additional constraints are imposed.



Table 2. Results of measurement invariance testing in the total sample ($N = 654$)

Model	Invariance	χ^2	df	P-value	$\Delta \chi^2$	Δdf	P (χ^2)	CFI	TLI	RMSEA	ΔCFI	$\Delta RMSEA$
Model 1. Unconstrained		35.582	16	0.003				0.985	0.961	0.041		
Model 2. Measurement weights	Metric	44.472	20	0.000	8.89	4	0.000	0.981	0.961	0.040	0.004	0.001
Model 3. Measurement intercepts	Scalar	126.524	26	0.000	82.06	6	0.000	0.923	0.876	0.072	0.058	-0.032
Model 4. covariance		150.008	29	0.000	23.48	3	0.000	0.907	0.866	0.075	0.016	-0.003
Model 5. Measurement residuals		188.301	35	0.000	38.29	6	0.000	0.883	0.859	0.077	0.024	-0.002

* CI = 95% confidence interval, *Note:* χ^2 = chi-square goodness of fit statistic; df = degrees of freedom; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA = Root-Mean-Square Error of Approximation

As can be seen in Table 2, there is an evidence of configural invariance. Configural invariance indicates that participants from different groups conceptualize the construct in the same way (Milfont & Fischer, 2010). The model fits well when examined separately in Belgium and in Iran, and when examined simultaneously in the two countries without imposing any constraints on parameters (see Model 1 in Table 2). Adding constrains on factor loadings to test metric invariance preserved an excellent fit (see Model 2 in Table 2). Metric invariance indicates that the strengths of the relations between specific items and their respective underlying construct are the same across groups (Milfont & Fischer, 2010). The chi-square change in model fit was statistically significant, $\Delta\chi^2(4) = 8.89, p < .0001$, however, Cheung and Rensvold (2002) stated that chi-square and chi-square difference tests are highly sensitive to large sample sizes such as our samples. As such, following Cheung and Rensvold (2002) and Chen (2007), we used changes in CFI and RSMEA to compare the nested models. Our analysis showed that both differences of these two indexes are below the cut-off-point of .01 (.004 for CFI and .001 for RSMEA). This allows us to conclude that metric invariance exists. By adding constrains on the threshold, the scalar invariance model's fit worsened (see Model 3 in Table 2). After relaxing two of the constraints in the previous model, the model displayed an acceptable fit (CFI = .90, TLI = .86, RMSEA = .072, $p = .0001$). However, based on the differences in CFI ($\Delta\text{CFI} = 0.016$) and RSMEA ($\Delta\text{RMSEA} = -0.003$), the loss of fit in comparison with the metric invariance model was tangible. Scalar invariance indicates that individuals who have the same score on the latent construct also obtain the same score on the observed variable regardless of their group membership (Milfont & Fischer, 2010), and this step was not verified in our data. In brief, the invariance analysis shows that the items on hindrance vs. challenge appraisals of job insecurity scale appear to have the same meaning in both countries, but, given the lack of scalar invariance, there might be evidence of differential item functioning at the scalar level. This implies that one would need to be skeptical in comparing statistical means across countries, which we do not intend to do in the current study.



Descriptive statistics

The descriptive statistics of the scales (means and standard deviations) and the Pearson correlations between the variables are reported in Table 3. In the total sample ($N = 654$), job insecurity was negatively correlated with job satisfaction ($r = -.45, p < 0.001$) and positively correlated with emotional exhaustion ($r = .41, p < 0.001$), as expected. These results are consistent with previous studies (e.g., Cheng & Chan, 2008). The hindrance appraisals of job insecurity are positively related to emotional exhaustion ($r = .15, p < 0.001$) but were not related to job satisfaction. The challenge appraisals of job insecurity were not associated with any of the two well-being related outcomes.

Table 3. Means, standard deviations, and correlations among the variables in the total sample, and in Belgium and Iran separately

Variable	Items	\bar{x}	SD	1	2	3	4	5
Total Sample ($N = 654$)								
1. Job insecurity	4	2.66	.750	-		.		
2. Challenge appraisal	3	2.75	.847	.020	-			
3. Hindrance appraisal	3	2.74	.910	.058	-.070	-		
4. Job satisfaction	4	2.82	.466	-.452***	.058	-.017	-	
5. Emotional exhaustion	5	2.60	1.079	.417***	-.005	.156***	-.641***	-
Belgian Sample ($N = 348$)								
1. Job insecurity	4	2.40	.480	-				
2. Challenge appraisal	3	2.76	.769	-.004	-			
3. Hindrance appraisal	3	2.86	.849	.012	-.195***	-		
4. Job satisfaction	4	2.96	.251	-.150***	.071	-.123*	-	
5. Emotional exhaustion	5	2.11	.777	.132*	-.082	.263***	-.472***	-
Iranian Sample ($N = 306$)								
1. Job insecurity	4	2.95	.886	-				
2. Challenge appraisal	3	2.74	.930	.058	-			
3. Hindrance appraisal	3	2.59	.956	.298***	.030	-		
4. Job satisfaction	4	2.65	.588	-.218***	.058	-.131*	-	
5. Emotional exhaustion	5	3.17	1.09	.241***	.053	.269***	-.519***	-

* $p < .05$, ** $p < .01$, *** $p < .001$

For the Belgian sample ($N = 348$), the correlation matrix indicated that job insecurity is negatively correlated with job satisfaction ($r = -.15, p < 0.001$) and positively with emotional exhaustion ($r = .13, p < 0.05$). In addition, the hindrance appraisal of job insecurity negatively correlated with job satisfaction ($r = -.12, p < 0.05$) and positively with emotional exhaustion ($r = .26, p < 0.001$). Also for this sample, there were no significant associations between the challenge appraisals of job insecurity and well-being related outcomes. For the Iranian sample ($N = 306$), the correlation matrix indicated that job insecurity is negatively correlated with job satisfaction ($r = -.21, p < 0.001$) and positively with emotional exhaustion ($r = .24, p < 0.001$). In addition, the hindrance appraisal of job insecurity is negatively correlated with job satisfaction ($r = -.13, p < 0.05$) and positively with emotional exhaustion ($r = .26, p < 0.001$). Also for this sample, there were no significant associations between the challenge appraisals of job insecurity and well-being related outcomes.

Test of the Moderating Effects of Cognitive Appraisals

We tested the hypothesized moderation effects in two phases. In the first phase, we used the total sample of Belgian and Iranian employees to increase the heterogeneity of research participants. In the second phase, we analyze the separate country samples (Belgium and Iran) to check whether all effects hold in each country.

According to Figure 1 job insecurity was modelled as a predictor, and job satisfaction and emotional exhaustion as the predicted variables. Hindrance and challenge appraisals of job insecurity were added as cognitive moderators. The results of both moderation tests for the total sample are displayed in Table 4. As the table shows, job insecurity predicted both job satisfaction ($\beta = -.45, p < .000$) and emotional exhaustion ($\beta = .39, p < .000$), as expected. Hindrance appraisals predicted emotional exhaustion ($\beta = .12, p < .000$) but did not predict job satisfaction. Challenge appraisals did not predict any of the outcomes. None of the cognitive appraisals moderated the association between job insecurity and job satisfaction. Hindrance appraisals however moderated the association between job insecurity and emotional exhaustion ($\beta = .07, p < .05$). Overall, evidence was only found for hypothesis 1b while hypotheses 1a, 2a, and 2b were refuted.

Table 4. Regression results (standardized regression coefficients) predicting the outcomes in the total sample ($N = 654$)

Effect	β	SE	t	p
Direct effect of job insecurity on job satisfaction	-.451	.035	-2.799	.000
Challenge appraisal on job satisfaction	.067	.355	1.905	ns
Hindrance appraisal on job satisfaction	.016	.035	.469	ns
Job insecurity \times challenge appraisal on job satisfaction	.001	.033	.027	ns
Job insecurity \times hindrance appraisal on job satisfaction	-.022	.031	-.727	ns
$R^2 = .21$; $F(5, 647) = 34.39$, $p < .000$				
Effect	β	SE	t	p
Direct effect of job insecurity on emotional exhaustion	.399	.035	1.22	.000
Challenge appraisal on emotional exhaustion	-.004	.035	-.131	ns
Hindrance appraisal on emotional exhaustion	.125	.035	3.53	.000
Job insecurity \times challenge appraisal on emotional exhaustion	.001	.033	.043	ns
Job insecurity \times hindrance appraisal on emotional exhaustion	.073	.031	2.30	.021
$R^2 = .19$; $F(5, 647) = 31.87$, $p < .000$				

$p < .05$, $p < .01$, $p < .001$

This moderation effect has been displayed in Figure 3. As the figure shows, hindrance appraisals amplify the negative association between job insecurity and emotional exhaustion. A deeper analysis, according to Dawson (2014), we divided moderator into low and high values based on the outcome of Process program in which low and high values for quantitative moderators are mean and minus/plus one SD from mean. Splitting the sample on the base of the level of hindrance appraisal (low and high levels), showed that in both cases job insecurity predicts emotional exhaustion, but the two regression coefficients were different: the regression coefficient for the subsample with low level of hindrance appraisal was lower than the one for the high level of subsample ($\beta_{low\ hindrance} = .32$, $p < 0.001$ vs. $\beta_{high\ hindrance} = .47$, $p < 0.001$).

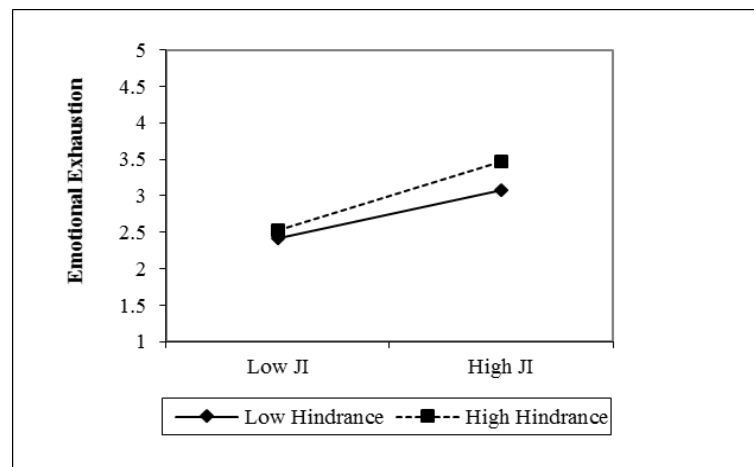


Figure 3. The interaction effect of job insecurity \times hindrance appraisal of job insecurity on emotional exhaustion in the total sample



In the second phase, we tested the same moderation effects separately for Belgium and Iran. Table 5 reports the results of the moderation tests in Belgium. As the table shows job insecurity predicted job satisfaction ($\beta = -.15, p < .001$) and emotional exhaustion ($\beta = .10, p < .05$), as expected. Although the challenge appraisals of job insecurity did not predict the outcomes, hindrance appraisals of job insecurity predicted job satisfaction ($\beta = -.12, p < .05$) and emotional exhaustion ($\beta = .26, p < .000$). The results of the moderation analysis showed that hindrance appraisals of job insecurity amplified the association between job insecurity and emotional exhaustion (See Figure 4; $\beta = .11, p < .05$). To better explore the meaning of this moderating effect, we divided the hindrance appraisals of job insecurity into low and high levels with the same method, as described earlier. We found that only for the high level of hindrance appraisal, job insecurity predicts emotional exhaustion ($\beta = .22, p < 0.001$), whereas in the subsample with a low level of hindrance appraisal this relation is not present ($\beta = -.005, p = 0.945$). This shows that the hindrance appraisals of job insecurity do not always have a detrimental impact on the job insecurity-emotional exhaustion association.

Table 5. Regression results (standardized regression coefficients) predicting the outcomes in Belgium ($N = 348$)

Effect	β	SE	t	p
Direct effect of job insecurity on job satisfaction	-.154	.053	-2.862	.004
Challenge appraisal on job satisfaction	.046	.054	.858	ns
Hindrance appraisal on job satisfaction	-.124	.054	-2.288	.022
Job insecurity \times challenge appraisal on job satisfaction	-.079	.052	-1.530	ns
Job insecurity \times hindrance appraisal on job satisfaction	-.028	.052	-.549	ns
$R^2 = .046; F(5, 342) = 3.30, p < .006$				
Effect	β	SE	t	p
Direct effect of job insecurity on emotional exhaustion	.109	.052	2.09	.037
Challenge appraisal on emotional exhaustion	-.013	.052	-.261	ns
Hindrance appraisal on emotional exhaustion	.267	.053	5.036	.000
Job insecurity \times challenge appraisal on emotional exhaustion	.010	.050	.215	ns
Job insecurity \times hindrance appraisal on emotional exhaustion	.113	.050	2.239	.025
$R^2 = .10; F(5, 342) = 7.60, p < .000$				

$p < .05, p < .01, p < .001$

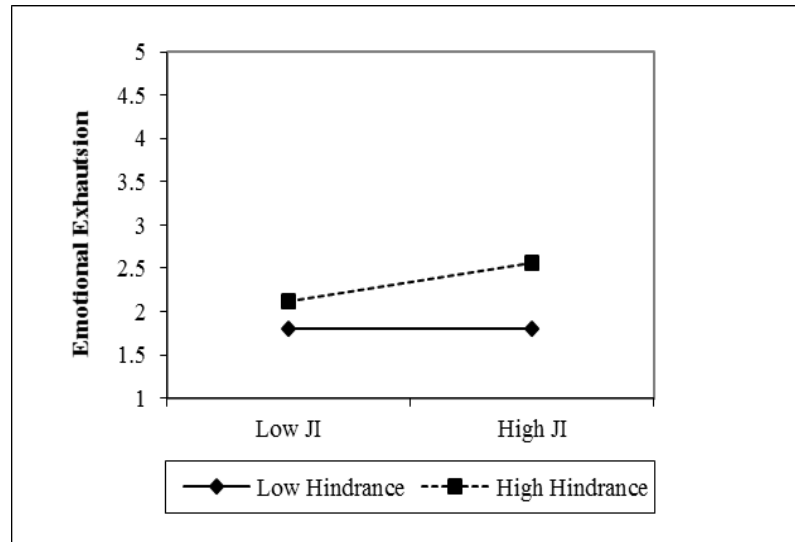


Figure 4. The interaction effect of job insecurity \times hindrance appraisal of job insecurity on emotional exhaustion in Belgium

We followed the same order to test the moderation effects in Iran. Table 5 reports these results. As the table shows job insecurity predicted job satisfaction ($\beta = -.20, p < .000$) and emotional exhaustion ($\beta = .19, p < .001$), as expected. Similarly to the Belgian sample, hindrance appraisals of job insecurity predicted emotional exhaustion ($\beta = .19, p < .000$) but not job satisfaction. Challenge appraisals of job insecurity did not predict the outcomes. The results of the moderation tests show that none of the cognitive appraisals of job insecurity moderate the associations between job insecurity and outcomes in Iran.

Table 6. Regression results (standardized regression coefficients) predicting the outcomes in Iran ($N = 306$)

Effect	β	SE	t	p
Direct effect of job insecurity on job satisfaction	-.207	.059	-3.460	.000
Challenge appraisal on job satisfaction	.067	.056	1.201	ns
Hindrance appraisal on job satisfaction	-.070	.060	-1.162	ns
Job insecurity \times challenge appraisal on job satisfaction	.055	.054	1.015	ns
Job insecurity \times hindrance appraisal on job satisfaction	-.001	.053	-0.031	ns
$R^2 = .06; F(5, 300) = 3.85, p < .0018$				
Effect	β	SE	t	p
Direct effect of job insecurity on emotional exhaustion	.190	.058	3.264	.001
Challenge appraisal on emotional exhaustion	.041	.054	.750	ns
Hindrance appraisal on emotional exhaustion	.198	.058	3.383	.000
Job insecurity \times challenge appraisal on emotional exhaustion	-.047	.053	-.899	ns
Job insecurity \times hindrance appraisal on emotional exhaustion	.060	.052	1.155	ns
$R^2 = .10; F(5, 300) = 7.28, p < .0000$				

$p < .05, p < .01, p < .001$

Discussion

The major goal of this research was to explore the extent to which hindrance and challenge appraisals of job insecurity moderate the association between job insecurity and well-being related outcomes. The comparison of the interaction effects of job insecurity and cognitive appraisals of job insecurity in both countries showed that only 1 out of 8 interactions effects were significant. Consequently, we did not find sufficient evidence to state that cognitive appraisals of employees of job insecurity significantly moderate the association between job insecurity and outcomes. The only significant interaction effect was the job insecurity \times hindrance appraisal on emotional exhaustion in the Belgian sample, showing that a hindrance appraisal of job insecurity amplifies the association between job insecurity and emotional exhaustion. This finding is explained by cognitive appraisal theory (Lazarus & Folkman, 1984). According to this theory, a hindrance appraisal of the threat (e.g., job loss) forms a negative anticipation toward how harmful the threat will be. This negative anticipation can undermine or inhibit the coping ability of employees to deal/sustain such threat as they may think that they do not have sufficient ability or means to restrain such stressor. As such, employees with this negative anticipation are expected to report more strains in terms of emotional exhaustion (Sadeghi Vazin, Shokri, PourShahriar, & Bagherian, 2014). A supplementary explanation for this finding comes from COR theory (Hobfall, 1989). According to this theory a threatening stressor such as job insecurity undermining the personal resources (i.e., self-efficacy: the perceived ability to overcome job uncertainty; hope: the



positive anticipation to find a secure job) or conditional resources (i.e., financial security: the perceived inability to balance their life expenditures) may reduce the sustainability of employees to deal with the threat. A hindrance appraisal of this threat may consume even further the resources of the employees and result in the amplification of the job insecurity-emotional exhaustion association.

Most (7 out of 8) interaction effects were not significant when analyzing the data per country. Three of the non-significant effects are related to the moderating role of hindrance appraisals of job insecurity and four to the moderating role of challenge appraisals of job insecurity. The non-significant interaction effects might be due to the following reasons. Hindrance appraisals did not moderate the association between job insecurity and both outcomes in Iran. This might be related to the employment situation of the Iranian participants. As demographic information shows, only 9.2 % of Belgian respondents in contract to 79.7% of the Iranian participants had a temporary contract. The higher rate of temporary contracts in the Iranian sample may explain the lack of moderation in the aforementioned association. Employees with temporary contracts are less likely to perceive job insecurity as a breach of their psychological contract with the employer, resulting in less negative reactions (De Cuyper & De Witte 2006). One reason could be that temporary employees might expect to receive less job security compared to permanent employees (De Cuyper, De Witte, Kinnunen, & Nätti, 2010). It means that the lack of job security, as a breach, for the temporary employees might not be as threatening of their individual resources as it might be for the permanent employees. As such, due to a higher rate of temporary contracts in the Iranian sample, employees are less likely to appraise the breach of psychological contract (e.g., job insecurity) as a hindrance, resulting in no moderation effect. Also, this may re-explain the moderation effect of hindrance appraisals that we found in Belgium. Accordingly, in the Belgian sample with a higher rate of permanent contracts, a breach of psychological contract (i.e., job security) is more likely to be appraised as a hindrance and amplifies the job insecurity-outcomes association. It should be noted that this impact, however, was found for emotional exhaustion and was not significant for job satisfaction. The reason that the job insecurity-job satisfaction relationship was not amplified by hindrance appraisal might be related to the type of job insecurity we measured. In this



respect, researchers claim that quantitative job insecurity has a stronger positive association with health-related outcomes (e.g., emotional exhaustion) than qualitative job insecurity, whereas qualitative job insecurity has a stronger negative association with job attitudes (e.g., job satisfaction) than quantitative job insecurity (Hellgren, Sverke, & Isaksson, 1999). As such, a hindrance appraisal of quantitative job insecurity might have a more detrimental impact in the job insecurity-emotional exhaustion rather than in the job insecurity-job satisfaction association.

We found no confirmation for the moderating role of challenge appraisals of job insecurity in the relationship between job insecurity and outcomes. This shows that what scientists may assume about the protective role of the challenge appraisals in the job insecurity-wellbeing association is not a correct assumption. Since most moderation effects were non-significant, we may conclude that appraisals do not play a determinant moderating role in the association between job insecurity and outcomes, at least not in the studies countries and samples. Our findings suggest that one should distinguish emotional moderators (e.g., social support, affects, and optimism) from cognitive moderators (hindrance vs. challenge appraisals) in the job insecurity-well-being association. According to prior studies, emotional moderators may be more likely (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007) to moderate the job insecurity-well-being association than the cognitive moderators tested in this study. Future research can test a large set of emotional and cognitive moderators and their differential impacts as moderators in the same association.

The impact of job insecurity on outcomes was replicated across Belgium and Iran. The results showed that job insecurity is associated with job satisfaction and emotional exhaustion in both countries. This replication suggests that the detrimental impact of job insecurity on outcomes is not context specific. The results also showed that hindrance appraisals of job insecurity predict job satisfaction and emotional exhaustion in Belgium, and emotional exhaustion in Iran. In contrast, challenge appraisals of job insecurity were unrelated to both outcomes in both countries. We may thus conclude that hindrance appraisals of job insecurity are more likely to provoke outcomes than challenge appraisals. This is consistent with the propositions of cognitive appraisal theory (Lazarus & Folkman, 1984). Accordingly, a perceived hindrance (i.e., job insecurity) is assumed to stimulate a hindrance appraisal. A



hindrance appraisal of a threat is anticipated to result in various negative outcomes because such appraisals provoke negative feelings of concern and uncertainty. As such, employees may be driven to overestimate the adverse aspects of a threat compared to possible positive aspects. These negative feelings may reduce the personal resources of individuals (e.g., self-efficacy, hope) and produce strains. Challenge appraisals were not associated with the outcomes. We may conclude that this might be because of the fully negative nature of job insecurity in the perceptions of employees. The perception of job insecurity as a hindrance may make greater imbalances in the loss-gain ratio of resources of an individual. In contrast, the perception of job insecurity as a challenge may make fewer imbalances in the same ratio of an individual. The greater perceived imbalance may be more likely to influence the outcomes than the fewer perceived imbalance.

Suggestions for Future Research

An interesting question for future studies is: what makes an employee appraise job insecurity as a hindrance or as a challenge? Lazarus and Folkman (1984) argued that the cognitive evaluation of a stressor affects not only how stressed you feel, but also what coping strategies you choose, adjust or deal, to overcome a stressor. In doing so, various factors may influence the cognitive evaluation of job insecurity. One might be related to the type of stressor. Stressors that are perceived to have the potential for *rewards* (e.g., praise and recognition), *growth* (e.g., learning new things), and *mastery* (e.g., reaching for a better position) are more likely to be appraised as a challenge; whereas those that are perceived to threaten *one's well-being* by frustrating goal attainment and personal development are more likely to be appraised as a hindrance (Lazarus & Folkman, 1984; Skinner & Brewer, 2002; Storch, Gaab, Kuttel, Stussi, & Fend, 2007; Webster et al., 2011). For example, job insecurity as a work-related concern has the potential to involve employees in professional development and financial rewards by seeking for an alternative secure job (a challenge appraisal of job insecurity), but also has the potential to demotivate employees to seek for new job opportunities because of the unpredictability of job demands and role complexity of a new job (a hindrance appraisal of job insecurity). The concentration of an employee on the negative (i.e., overestimation of negative impact) or positive (i.e., underestimation of negative impacts)



sides of a threat may lead to a hindrance or a challenge appraisal of that threat respectively. A second factor that may influence the cognitive evaluation of individuals of a threat relates to the level of personal resources. Based on cognitive appraisal theory (Lazarus & Folkman, 1984) and conservation of resources theory (Hobfoll, 1989), individuals who are low in personal resources might be more vulnerable compared to those who are high (Weiss et al., 1999). According to these theories individuals with a lower level of personal resources are more likely to appraise job insecurity as a hindrance rather than a challenge. Future studies may want to examine this hypothesis. A third factor might be associated with the job opportunities or different social security system of a given country. These are so-called societal resources (Senterfitt, Long, Shih, & Teutsch, 2013). Employees of countries with a strong social security system and high job opportunities are probably less likely to appraise job insecurity as a hindrance. They are aware that if they lose their job, they can still be financially supported by their government until they find a new job. We did not include the possible effects of the societal resources of the two different countries in our study. Future studies may want to test the effect of these and similar societal resources in samples comprising a larger set of countries.

Strengths and Limitations

The present study contributes to the job insecurity literature in several ways. First, it examines whether the job insecurity-well-being relationship depends on cognitive appraisals of employees of job insecurity. As such, we found some evidence for hindrance appraisals of job insecurity as moderator of the job insecurity-emotional exhaustion relationship. This finding strengthens the propositions of cognitive appraisal theory. No evidence, however, was found for challenge appraisals of job insecurity as moderator of the job insecurity-well-being relationship. Second, despite the differences in the culture, economic systems, and welfare regimes of Belgium and Iran, this study replicates the negative associations of job insecurity with two core well-being outcomes, job satisfaction, and emotional exhaustion, in studied countries. Also, hindrance appraisals had a similar direct association with emotional exhaustion in both countries.



There are also several limitations related to this research that may have affected our conclusions. First, the findings were established based on a cross-sectional research design, which does not allow to study of moderating effects over time. Job insecurity is a phenomenon which is influenced by social and economic shocks (e.g., Setayesh & Mackey, 2016). Studying moderating effects over time may show differences in how cognitive moderators influence the association between job insecurity and outcomes (Vander Elst et al., 2014; Piccoli & De Witte, 2015). Future research may apply a longitudinal research design to test the short and long term impacts of job insecurity on the outcomes and to test the short and long term impact of both appraisals in the job insecurity-well-being association over time. A second possible limitation concerns the characteristics of the sample: women and white-collar workers were over-represented in comparison to men and blue-collar workers. This selection of workers might limit the generalizability of our findings (e.g., De Witte & Näswall, 2003). Third, the non-random samples from Belgium and Iran may also further limit the generalization of the results to other samples.

Conclusion

This research identified and clarified that cognitive appraisals of job insecurity hardly play a moderating role in the job insecurity-well-being association. However, when employees appraise job insecurity as a hindrance stressor, job insecurity is more likely to be detrimental and to provoke negative responses. Challenge appraisals of job insecurity did not show to have the expected protective role. The replication of our results in two countries also suggested that the detrimental impact of job insecurity on aspects of well-being (e.g., job satisfaction and emotional exhaustion) is not country-specific.



References

- Arbuckle, J.L. (2005). *Amos 6.0 user's guide*. Spring House, PA: AMOS Development Corporation.
- Ariapooran, S. (2014). Compassion fatigue and burnout in Iranian nurses: The role of perceived social support. *Iranian Journal of Nursing and Midwifery Research*, 19(3), 279–284.
- Baillien, E. A., & De Witte, H. (2009). Why is Organizational Change Related to Workplace Bullying? Role Conflict and Job Insecurity as Mediators. *Economic and Industrial Democracy*, 30(3), 348-371. doi:10.1177/0143831x09336557
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barsky, A., Kaplan, S. A., & Beal, D. J. (2011). Just Feelings? The Role of Affect in the Formation of Organizational Fairness Judgments. *Journal of Management*, 37(1), 248-279. doi: 10.1177/0149206310376325
- Bollen, K.A., & Long, J.S. (Eds.). (1993). *Testing structural equation models*. Newbury Park, CA: Sage Publications.
- Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.), *Testing structural equation models* (pp. 136–162).
- Burgard, S. A., Brand, J. E., & House, J. S. (2009). Perceived job insecurity and worker health in the United States. *Social Science & Medicine*, 69(5), 777-785. doi:10.1016/j.socscimed.2009.06.029
- Byrne, B.M. (2001). *Structural equation modeling with Amos. Basic concepts application and programming*. Mahwah, NJ and London: Lawrence Erlbaum.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology*, 85(1), 65-74. doi:10.1037//0021-9010.85.1.65
- Charkhabi, M., Pasini, M., & De Witte, H. (2015). Job Insecurity: Hindrance or Challenge? A Pilot Study on a Job Insecurity Appraisal Scale by the Cognitive Interview Method. Poster presented at The 17th European Congress of Work and Organizational Psychology, Oslo, Norway 20–23 May 2015



- Chen, F. F. (2007). Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 14(3), 464-504. doi:10.1080/10705510701301834
- Cheng, G. H., & Chan, D. K. (2008). Who Suffers More from Job Insecurity? A Meta-Analytic Review. *Applied Psychology*, 57(2), 272-303. doi:10.1111/j.1464-0597.2007.00312.x
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9, 233–255.
- Dawson, J. F. (2014). Moderation in Management Research: What, Why, When, and How. *Journal of Business and Psychology*, 29(1), 1-19. doi:10.1007/s10869-013-9308-7
- De Cuyper, N., & De Witte, H. (2006). The impact of job insecurity and contract type on attitudes, well-being and behavioral reports: A psychological contract perspective. *Journal of Occupational and Organizational Psychology*, 79(3), 395-409. doi:10.1348/096317905x53660
- 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 and Organization*, 40(1), 57-73. doi:10.2753/imo0020-8825400104
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [Work ethic and job insecurity: Assessment and consequences for wellbeing, satisfaction and performance at work]. In R. Bouwen, K. De Witte, H. De Witte, & T. Taillieu (Eds.), *Van groep naar gemeenschap* [From group to community]. Liber Amicorum Prof. Dr. Leo Lagrou (pp. 325–350). Leuven, Belgium: Garant.
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4): 1-6. doi:10.4102/sajip.v31i4.200
- De Witte, H., & Näswall, K. (2003). 'Objective' vs 'Subjective' Job Insecurity: Consequences of Temporary Work for Job Satisfaction and Organizational Commitment in Four



- European Countries. *Economic and Industrial Democracy*, 24(2), 149-188. doi: 10.1177/0143831x03024002002
- De Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 Years of Longitudinal Studies on the Association Between Job Insecurity and Health and Well-Being: Is There Causal Evidence? *Australian Psychologist*, 51(1), 18-31. doi:10.1111/ap.12176
- De Witte, H., Vander Elst, T., & De Cuyper, N. (2015). Job Insecurity, Health, and Well-Being. In J. Vuori, R. Blonk, & R. H. Price (Eds.), *Sustainable Working Lives: Managing Work Transitions and Health Throughout the Life Course*. New York: Springer, pp. 109-128. doi: 10.1007/978-94-017-9798-6
- Furåker, B., & Berglund, T. (2013). Job Insecurity and Organizational Commitment. *Revista Internacional de Organizaciones*, (13), 163-186.
- Glavin, P., & Schieman, S. (2014). Control in the Face of Uncertainty: Is Job Insecurity a Challenge to the Mental Health Benefits of Control Beliefs? *Social Psychology Quarterly*, 77(4), 319-343. doi:10.1177/0190272514546698
- Hamad, R., Modrek, S., & Cullen, M. R. (2015). The Effects of Job Insecurity on Health Care Utilization: Findings from a Panel of U.S. Workers. *Health Serv Res*, n/a-n/a. doi:10.1111/1475-6773.12393
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- 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. (2001). The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory. *Applied Psychology*, 50(3), 337-421. doi:10.1111/1464-0597.00062
- Hoyle, R.H. (1995). *Structural equation modelling: Concepts, issues, and applications*. Thousand Oaks, CA: Sage Publications.
- Hu, L., & Bentler, P.M. (1999). Cut off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.



- Jiang, L., & Probst, T. M. (2015). The relationship between safety–production conflict and employee safety outcomes: Testing the impact of multiple organizational climates. *Work & Stress*, 29(2), 171-189. doi:10.1080/02678373.2015.1032384
- Kline, R.B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Kinnunen, U., Mauno, S., & Siltaloppi, M. (2010). Job insecurity, recovery and well-being at work: Recovery experiences as moderators. *Economic and Industrial Democracy*, 31(2), 179-194. doi: 10.1177/0143831x09358366
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and, coping*. NY: Springer.
- LePine, J. A., LePine, M. A., & Saul, J. R. (2007). Relationships among work and non-work challenge and hindrance stressors and non-work and work criteria: a model of cross-domain stressor effects. *Exploring the Work and Non-Work Interface*, 35-72. doi:10.1016/s1479-3555(06)06002-1
- Lim, D., Baek, K., Chung, I., & Lee, M. (2014). Factors Related to Sleep Disorders among Male Firefighters. *Ann Occup Environ Med*, 26(1), 11. doi:10.1186/2052-4374-26-11
- Marsh, H. W. (2001). Distinguishing Between Good (Useful) and Bad Workloads on Students' Evaluations of Teaching. *American Educational Research Journal*, 38(1), 183-212. doi:10.3102/00028312038001183
- Maslach, C., Jackson, S.E. & Leiter, M.P. (1996). *MBI: The Maslach Burnout Inventory: Manual*, Consulting Psychologists Press, Palo Alto, CA.
- Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498-512. doi:10.1037/0021-9010.93.3.498
- McDonough, P. (2000). Job Insecurity and Health. *International Journal of Health Services*, 30(3), 453-476. doi: 10.2190/bpfg-x3me-lhta-6rpv
- Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika*, 58(4), 525-543. doi:10.1007/bf02294825
- Milfont, T.L., & Fischer, R. (2010). Testing measurement invariance across groups: applications in cross-cultural research. *International Journal of Psychological Research*, 3(1), 111-121.



- Piccoli, B., & De Witte, H. (2015) Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity, *Work & Stress*, 29(3), 246-263, DOI: 10.1080/02678373.2015.1075624
- Peeters, J. (2014). *Jobonzekerheid als werkeis: hindernis of uitdaging? (Job insecurity as work demand: hindrance or challenge?)*. Master thesis defended to obtain the degree of Master of Science in Psychology (supervisor: Hans De Witte), Faculty of Psychology and Educational Sciences, KU Leuven, Leuven.
- Price, J. L.(1997). *Handbook of organizational measurement*. Bradford, UK: MCB University Press.
- Probst, T. M. (2008). Job Insecurity. In J. Barling & C. L. Cooper (Eds.), *The SAGE Handbook of Organizational Behavior*, (1):178-195. London: Sage.
- Probst T.M., Barbaranelli C., Petitta L. (2013). The Relationship between Job Insecurity and Accident Under-reporting: A Test in Two Countries. *Work & Stress*, 27(4),383-402. DOI:10.1080/02678373.2013.850756
- Sadeghi Vazin, A., Shokri, O., PourShahriar, H., & Bagherian, F. (2014). Occupational Stress, Coping Strategies and Strains: A Model OF Gender Invariance. *Journal of Iranian Psychologists*. 10 (40), 393-408.
- Schaufeli, W. B. (2016), Job Insecurity Research is Still Alive and Kicking Twenty Years Later: A Commentary. *Australian Psychologist*, 51: 32–35. doi: 10.1111/ap.12201
- Searle, B. J., & Auton, J. C. (2014). The merits of measuring challenge and hindrance appraisals. *Anxiety, Stress, & Coping*, 28(2), 121-143. doi:10.1080/10615806.2014.931378
- Selye, H. (1976). Forty years of stress research: Principal remaining problems and misconceptions. *Canadian Medical Association Journal*, 115(1), 53–56.
- Senterfitt, J.W., Long, A., Shih, M., Teutsch, S.M. (2013). *How social and economic factors affect health: social determinants of health* (1). Retrieved from Los Angeles County Department of Public Health website: <http://www.publichealth.lacounty.gov/epi/>
- Setayesh, S., & Mackey, T. K. (2016). Addressing the impact of economic sanctions on Iranian drug shortages in the joint comprehensive plan of action: promoting access to



- medicines and health diplomacy. *Globalization and Health*, 12(1):31. doi:10.1186/s12992-016-0168-6
- Skinner, N., & Brewer, N. (2002). The dynamics of threat and challenge appraisals prior to stressful achievement events. *Journal of Personality and Social Psychology*, 83(3), 678-692. doi:10.1037/0022-3514.83.3.678
- Storch, M., Gaab, J., Küttel, Y., Stüssi, A., & Fend, H. (2007). Psychoneuroendocrine effects of resource-activating stress management training. *Health Psychology*, 26(4), 456-463. doi:10.1037/0278-6133.26.4.456
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264. doi:10.1037/1076-8998.7.3.242
- Tilakdharee, N., Ramidial, S., Parumasur, S.B. (2010). The Relationship between Job Insecurity and Burnout. *South African Journal of Economic and Management Sciences*, 13, 3, 254-271.
- Truxillo, D. M., Bauer, T., & Erdogan, B. (2016). *Psychology and work: Perspectives on industrial and organizational psychology*. P443.
- Vander Elst, T. V., De Cuyper, N. & De Witte, H. (2010). The role of perceived control in the relationship between job insecurity and psychosocial outcomes: moderator or mediator?. *Stress and Health*, 27: e215–e227. doi: 10.1002/smi.1371.
- Vander Elst, T., Richter, A., Sverke, M., Näswall, K., De Cuyper, N., & De Witte, H. (2014). Threat of losing valued job features: The role of perceived control in mediating the effect of qualitative job insecurity on job strain and psychological withdrawal. *Work & Stress*, 1-22. doi:10.1080/02678373.2014.899651
- Vander Elst, T., Van den Broeck, A., De Cuyper, N., & De Witte, H. (2014). On the reciprocal relationship between job insecurity and employee well-being: Mediation by perceived control? *J Occup Organ Psychol*, 87(4), 671-693. doi:10.1111/joop.12068
- Wang, H., Lu, C., & Siu, O. (2015). Job insecurity and job performance: The moderating role of organizational justice and the mediating role of work engagement. *Journal of Applied Psychology*, 100(4), 1249-1258. doi: 10.1037/a0038330



- Warr, P., Bindl, U. K., Parker, S. K., & Inceoglu, I. (2014). Four-quadrant investigation of job related affects and behaviours. *European Journal of Work and Organizational Psychology*, 23, 342–363. doi:10.1080/1359432X.2012.744449
- Webster, J. R., Beehr, T. A., & Love, K. (2011). Extending the challenge-hindrane model of occupational stress: The role of appraisal. *Journal of Vocational Behavior*, 79(2), 505-516. doi:10.1016/j.jvb.2011.02.001
- Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, 84(5), 786-794. doi:10.1037/0021-9010.84.5.786
- Weston, R., & Gore, P.A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, 34(5), 719–751.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141. doi:10.1037/1072-5245.14.2.121



2017	<h1>Chapter III:</h1> <h2>Qualitative Job Insecurity and Cognitive Moderators</h2>



Qualitative Job Insecurity and Psychological and Behavioral Well-Being: Exploring the Moderating Effects of Hindrance versus Challenge Appraisals

This chapter is adapted from the following publication:

Charkhabi, M., De Witte, H., & Pasini, M. (2017). Qualitative Job Insecurity and Emotional-Behavioral Well-being: Exploring the Moderating Effects of Hindrance versus Challenge Appraisals. *Anxiety, Stress & Coping*. Submitted.

Abstract

The first aim of this study is to replicate the impact of qualitative job insecurity on well-being outcomes. A second aim is to determine the extent to which hindrance vs. challenge appraisals of job insecurity moderate this association. Well-being related outcomes were divided into psychological (job satisfaction and emotional exhaustion) and behavioral (absenteeism and presenteeism) outcomes. According to appraisal theory, we predict a hindrance appraisal of job insecurity to amplify and a challenge appraisal of job insecurity to buffer the association between qualitative job insecurity and outcomes. Data was collected from 250 employees in a cross-sectional study. Employees were sampled from different departments of a large public hospital located in Iran. Participants completed scales on qualitative job insecurity, hindrance vs. challenge appraisals, job satisfaction, emotional exhaustion, absenteeism, and presenteeism. The results showed a positive association between qualitative job insecurity and poor psychological outcomes. Yet, job insecurity was only associated with one of the behavioral outcomes (presenteeism). The moderation tests revealed that the hindrance appraisals of job insecurity amplified the link between job insecurity and psychological outcomes, as expected. Surprisingly, also challenge appraisals amplified the association between job insecurity and job satisfaction. Other interactions were not statistically significant. Although the findings showed that hindrance appraisals are more likely to moderate the job insecurity-wellbeing association than challenge appraisals, only two out of eight interaction effects were in line with the hypotheses. This showed that cognitive appraisals barely play a significantly moderating role in the association between job insecurity and wellbeing related outcomes. Self-reported scales and sampling from public hospitals may limit the generalizability of findings.

Keywords: job insecurity; hindrance versus challenge appraisals; job satisfaction; emotional exhaustion; absenteeism; presenteeism



Introduction

The face and content of many jobs and organizations are dramatically changing (Sender, Arnold & Staffelbach, 2016). These changes enable organizations to provide smoother and more efficient services to customers and clients, to use advanced technological innovations, and to enhance their corporate reputation in society (e.g., Ashford, Lee, & Bobko, 1989; Falco, Dal Corso, De Carlo, & Di Sipio, 2008; Wan Yusoff, Che Mat, Zainol, 2014; Schaufeli, 2016). On the one hand, these changes may aid employers to find a more stable position in the turbulent and competitive economy; on the other hand, they may make employees feel insecure about the future of their job (Bidwell, 2013). In this respect, scientific evidence from Europe (e.g., László, Pikhart, Kopp, Bobak, Pajak, Malyutina, Salavec, & Marmot, 2010), U.S. (e.g., Hamad, Modrek, Cullen, 2015), Australia (e.g., Turner & Lingard, 2016), and Africa (e.g., De Beer, Rothmann Jr. & Pienaar, 2016) shows that a large number of employees are psychologically and physically suffers from such job insecurity in their working life.

Consistent with this growing global concern, studies show that Iranian employees, due to receiving international sanctions against the nuclear program, have felt this insecurity of job in the last twelve years (e.g., Setayesh & Mackey, 2016). These sanctions reduced the real employment rate in the Iranian job market and led to a situation in which employees lost some habitual features of their job (e.g., overtime salary, rewards, higher workload, and lower payment) and felt insecure (e.g., Gal & Minzili, 2011). This situation provided an epidemiologically suitable context to study job insecurity, its outcomes, and its moderators in a country in which job insecurity is an issue.

From an academic standpoint, job insecurity is a multidimensional phenomenon that is divided into quantitative and qualitative job insecurity. Quantitative job insecurity is related to the overall concern of an employee about the continued existence of the job in the future (Vander Elst, De Cuyper & De Witte, 2011). Qualitative job insecurity is introduced as the perceived threat of losing certain valued features of the job (De Witte, 2005) such as deterioration of working conditions, lack of career opportunities, and decreasing salary development (Hellgren, Sverke, & Isaksson, 1999). Although, previous research has found that both types of job insecurity have detrimental effects on work and life domains of



employees (e.g., Çetin & Turan, 2013; De Witte, De Cuyper, Handaja, Sverke, Näswall, & Hellgren, 2014), the focus of this study will be on qualitative job insecurity. This is because this form of job insecurity is currently considered problematic in Iran as it has been in the center of employee's complaints during the sanction's years (e.g., Gal & Minzili, 2011; Setayesh & Mackey, 2016). As such, the first aim of this study is to investigate the association between qualitative job insecurity and psychological and behavioral well-being.

Although there are already some studies showing that qualitative job insecurity is associated with negative outcomes, still less is known about moderators that have the potential to buffer or amplify this link. Some researchers have suggested personal and organizational moderators that can reduce this link (e.g., Richter, Näswall, Bernhard-Oettel, & Sverke, 2013; De Witte, 2005). In this study, we propose cognitive appraisals, namely hindrance and challenge appraisals, as potential personal moderators that can moderate this association. In other words, we test whether a hindrance or challenge appraisal of job insecurity strengthens or weakens the association between job insecurity and its well-being related outcomes. As such, the second aim of this study is to test the moderating role of hindrance and challenge appraisals of job insecurity in the relationship between job insecurity and psychological and behavioral well-being in the Iranian context.

Contributions of the Present Study

The current study contributes to the existing literature in several ways. First, by using cognitive appraisal theory to propose job insecurity as a situational stressor that leads to negative outcomes, we test the impact of qualitative job insecurity on various well-being related outcomes. Second, by using cognitive appraisal theory to conceptualize hindrance and challenge appraisals of job insecurity as two possible individual-based moderators, we test the extent to which the two appraisals of job insecurity may operate as moderating mechanisms (amplifier or buffer) that moderate negative reactions to job insecurity. Third, we extend knowledge on cognitive appraisal theory by developing the concepts of hindrance and challenge appraisals in the literature of qualitative job insecurity. Figure 1 displays a conceptual model of the relationships between the research variables.

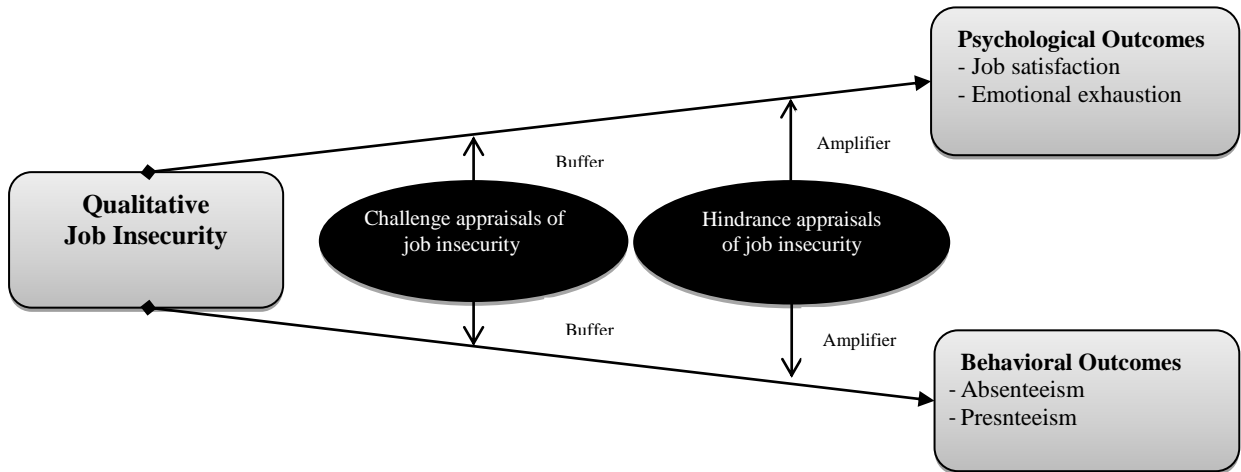


Figure 1. A conceptual model of the association between research variables

Job insecurity - Strains Sequence

An employee concerned about losing job features may experience stress due to the anticipation of future problems such as being in a powerless position or ambiguity about how their future job will look like (Greenhalgh & Rosenblatt, 1984; Vander Elst, De Witte & De Cuyper, 2014). Unlike job loss or unemployment, perceived job insecurity is not a socially-visible phenomenon, but rather a subjective experience for which there are no obvious responses or organizational supports (Lastad, 2015; De Witte, 2005). Employees who are experiencing job insecurity cannot employ appropriate coping strategies to deal/adjust with this stressor because they are uncertain whether the job loss will actually occur or not (Van Vuuren, Klandermans, Jacobson, & Hartley, 1991; Hobfoll, 2001). This represents job insecurity as a chronic work stressor that individuals may continuously be dealing with at their workplace.

Further studies show that employees demonstrate different responses to perceived job insecurity. More specifically, they may experience short-term psychological outcomes such as anxiety, tension, and dissatisfaction (Burgard, Brand & House, 2009), or short-term physiological outcomes such as increased heart rate and blood pressures, increased catecholamine secretion, and high self-reported morbidity (Ferrie, Shipley, Stansfeld & Marmot, 2001), and short-term behavioral outcomes such as drug use, absenteeism, lack of concentration (Adekiya, 2015). These outcomes are not limited to short-term strains and the



accumulation of these responses can also result in long-term outcomes such as poor mental and physical health (e.g., Gazzaniga & Heatherton, 2003; De Witte, Pienaar & De Cuyper, 2016). We will further discuss the outcomes of qualitative job insecurity by separating them into psychological and behavioral outcomes.

Qualitative Job insecurity and Psychological Well-Being

Studies show that job insecurity can significantly influence the psychological well-being of employees at the workplace (Sverke, Hellgren, & Naswall, 2002). The uncertainty and ambiguity aspects of job insecurity provoke concerns about the job and its features in the future (Sverke, Hellgren, & Naswall, 2006). There are only a few studies that considered the well-being related outcomes of the threat to job features. It might be because pioneer researchers such as Greenhalgh and Rosenblatt (1984) stated that consequences of qualitative job insecurity might be less severe compared to those of quantitative job insecurity. Contemporary researchers however sometimes found that qualitative job insecurity had a stronger negative association with job attitudes than quantitative job insecurity, whereas quantitative job insecurity had a stronger positive association with health-related outcomes than qualitative job insecurity (Hellgren, Sverke, & Isaksson, 1999). Others found that the strength of the association between qualitative job insecurity and job-related attitudes and behaviors was similar to the strength of the association between quantitative job insecurity and these outcomes (Ashford, Lee, & Bobko, 1989). Also, De Witte, De Cuyper, Handaja, Sverke, Näswall, & Hellgren (2010) showed that both types of job insecurity have a similar harmful impact on a variety of well-being-related outcomes such as emotional exhaustion, psychological distress, depersonalization, decreased personal accomplishment, and psychosomatic complaints. These findings suggest that first, quantitative job insecurity is not more important than qualitative job insecurity as both job insecurity types can negatively influence job attitudes and well-being. Second, contradictory findings regarding the two types of job insecurity suggest that qualitative job insecurity should be considered more in future research. Based on the literature, most studies have reported job satisfaction and emotional exhaustion as the two most popular outcomes of qualitative job insecurity. In this study, we replicate the association between qualitative job insecurity and the two outcomes by



considering them as psychological outcomes. This impact can be explained using cognitive appraisal theory (Lazarus & Folkman, 1984). According to this theory, stressful experiences are construed as person-environment transactions depending on the impact of the external stressor (i.e., job insecurity). When an individual encounters a situational stressor (i.e., a threat to job features), he/she makes a primary appraisal of the threat. *Primary appraisal* is an individual's decision about the significance of an event as positive, negative, controllable, challenging or stressful. Secondary appraisals address what an individual could do in this stressful situation. Secondary appraisals concern evaluations of factors such as the personal resources to regulate the stressful situation (Barsky, Kaplan, & Beal, 2011; Weiss, Suckow, & Cropanzano, 1999; Vander Elst, Richter, Sverke, Näswall, De Cuyper, & De Witte, 2014). Cognitive appraisal theory predicts that when individuals perceive a stressor as a hindrance they are more likely to experience negative outcomes (LePine, Podsakoff, & LePine, 2005). Following this theory, when the features of the job are likely to change unpleasantly (e.g., an increase in working hours, or a decrease in organizational benefits), the psychological wellbeing of employees may unpleasantly reduce too (e.g., De Witte & Näswall, 2003). As such, we expect employees who are threatened by qualitative job insecurity to report more reduction in their psychological wellbeing, as displayed in the following hypotheses:

Hypothesis 1. Perceived qualitative job insecurity will be a) negatively associated with job satisfaction, and b) positively associated with emotional exhaustion.

Qualitative Job insecurity and Behavioral Well-Being

The impact of qualitative job insecurity is not limited to psychological outcomes. Studies show that the experience of job insecurity, in a longer period, may lead employees to sustain behavioral outcomes (e.g., Adekiya, 2015; De Witte et al., 2010; Sheden, Smith, Scheepers & Ahmad, 2009). Absenteeism and presenteeism are considered as two behavioral reactions to perceived job insecurity (Chirumbolo & Areni, 2005; Johns, 2010). Empirical evidence shows that these two reactions are opposite to each other (Johns, 2010). Absenteeism is generally defined as not showing up for scheduled work due to illness and is scientifically well-documented (e.g., Harrison & Martocchio, 1998; Johns, 2010). Presenteeism



characterizes the behavior of an employee who attends at work while is ill (physically or mentally), despite he could claim a sick leave. This phenomenon has only recently been considered as a subject of interest (Bierla, Huver, Richard, 2012). It is suggested that absenteeism and presenteeism should, as much as possible, be studied together (e.g., Probst, 2003). Studies show that although job insecurity can increase absenteeism (e.g., Collins, Karasek, & Costas, 2005) and decrease presenteeism (e.g., Probst & Brubaker, 2001) simultaneously, presenteeism of employees may have a more harmful influence on organizational outcomes. Till now, most studies have used quantitative job insecurity to investigate the association between job insecurity and absenteeism and presenteeism (e.g., Johns, 2010; Probst & Brubaker, 2001; Heponiemi, Elovainio, Pentti, Virtanen, Westerlund, Virtanen, Oksanen, Kivimäki, Vahtera, 2010; Hansen & Anderson, 2008; Caverley et al., 2007; Bierla, Huver, Richard, 2012). We found no study to test the association between qualitative job insecurity and absenteeism and presenteeism. This represents a research gap that this study intends to fill.

Contemporary researchers state that when the job is not secure, absenteeism may reflect the protest of an employee in regard to the job features/condition (Munro, 2007), whereas presenteeism may reflect evidence of loyalty and commitment (which may indicate a strong organizational citizenship or garner praise) of an employee to the employer (Johns, 2010; Bierla, Huver, Richard, 2012). This view is consistent with the study of Probst and Brubaker (2001) that found employees with the perceptions of low security are more likely to engage in work withdrawal behaviors and report lower organizational commitment which often leads to employee's turnover. As such, when the features of the job are threatened we anticipate employees to reduce their job commitment in terms of an increased absenteeism or a decreased presenteeism. We, however, use cognitive appraisal theory to interpret further these behavioral reactions to perceived qualitative job insecurity. According to cognitive appraisal theory (Lazarus & Folkman, 1984) when employees are threatened to lose some of their valued job features they may show negative psychological outcomes as mentioned (e.g., job dissatisfaction or emotional exhaustion). The culmination of the negative psychological outcomes, which are considered short-term outcomes, may spillover from work to home and lead to long-term outcomes in terms of increased absence due to illness (absenteeism) or



decreased presence due to illness (presenteeism) (e.g., Golden, 2011; Garrow, 2016). As such, we expect employees who are threatened by qualitative job insecurity to report greater absenteeism and lesser presenteeism as displayed in the following hypothesis:

Hypothesis 2. Perceived qualitative job insecurity will be a) positively associated with absenteeism, and b) negatively associated with presenteeism.

Qualitative Job Insecurity and Cognitive Appraisals: Amplifier or Buffer?

Not all employees experience the detrimental impacts of job insecurity to the same extent (e.g., Probst, 2004). As an example, employees high on organizational status or job dependence might be less influenced by job insecurity (Schreurs, Van Emmerik, Notelaers, & De Witte, 2010; Richter, Näswall, Bernhard-Oettel & Sverke, 2014). Dissimilar reactions of employees to the threat of their job features reveal that qualitative job insecurity is also a subjective construct (De Witte, 2005; Sverke, Hellgren, & Näswall, 2002). Similar to other subjective constructs, qualitative job insecurity could be appraised in various ways (Vander Elst, Van den Broeck, De Cuyper, De Witte, 2014). That shows the appraisals of employees of qualitative job insecurity may influence the effect size of perceived qualitative job insecurity on the outcomes. Till now, most studies tested the role of different moderators in the relationship between qualitative job insecurity and popular outcomes (e.g., Vander Elst et al., 2010; Silla, De Cuyper, Gracia, Peiro, & De Witte, 2009). However, no study has considered testing the moderating role of cognitive appraisals of job insecurity in this association. According to cognitive appraisal theory (Lazarus & Folkman, 1984), when individuals are faced with a situational stressor they may preliminarily appraise it as either a hindrance or a challenge. Based on this theory, we divide cognitive appraisals into hindrance and challenge appraisals. Hindrance appraisals are mainly associated with the appraisal of threats as “losses or harms” that are predicted to happen but still have not occurred, whereas challenge appraisals are associated with the appraisal of threats as opportunities for “growths or gains” in a situation that contribute to goal achievement and personal development (Barsky, Kaplan, & Beal, 2011). These appraisals determine if an event or aspect of the environment is perceived as a threat or an opportunity, and they are mostly used to explain the *stressor-stress-strain* connection (Webster, Beehr, & Love, 2011). Because of the two different appraisals, an



individual may interpret the same work stressor in two different ways (Hobfoll, 1989). As an example, studies show that employees may appraise workload as a hindrance (Cavanaugh, Boswell, Roehling, & Boudreau; 2000) or a challenge (Marsh, 2001). As such, employees may not have a same appraisal of the same threat when they encounter a threat posed to their job features (i.e., changes in salary or position). In doing so, when the features of their job are threatened they may appraise it in either way. Cognitive appraisals of individuals are assumed to moderate the association between qualitative job insecurity and well-being related outcomes. As the hindrance appraisal of job insecurity refers to perceiving threat as loss or harm, employees high on this appraisal are more likely to perceive qualitative job insecurity as an unpleasant threat. This is consistent with the framework provided by cognitive appraisals theory (Lazarus & Folkman, 1984). According to this theory, a hindrance appraisal of a situational stressor tends to provoke negative outcomes rather than positive ones. As such, we predict that a hindrance appraisal of job insecurity may amplify the association between job insecurity and both psychological and behavioral outcomes, leading to the following hypothesis:

Hypothesis 3. A hindrance appraisal of job insecurity will amplify the association between qualitative job insecurity and a) job satisfaction, b) emotional exhaustion, c) absenteeism, d) presenteeism

Findings showed that there is a solid association between challenge appraisals and desire to grow and gain (Barsky, Kaplan, & Beal, 2011). As such, employees high on challenge appraisal of job insecurity are more likely to perceive qualitative job insecurity in a less threatening light. This challenge appraisal of job insecurity encourages employees to better adjust to new changes posed to their job features. According to cognitive appraisal theory (Lazarus & Folkman, 1984), a challenge appraisal of a situational threat encourages employees to look at the threat as an opportunity to learn about new situations and to develop their career path. As such, they may appraise the threat less negatively. Therefore, challenge appraisals are expected to decrease the association between qualitative job insecurity and well-being related outcomes. An additional explanation is provided by Conservation of



Resource theory (Hobfoll, 1989). According to this theory, individuals seek to acquire and maintain resources that they can apply to accommodate, withstand, or overcome threats. They may use material sources (e.g., homes, clothes, food), personal resources (e.g., self-esteem, self-confidence and optimism), conditions resources (e.g., status, social support, financial security), and energy resources (e.g., time, money, and knowledge). Stress mainly occurs when these resources are lost or threatened. Indeed, traumatic or stressful events consume these resources and reduce the coping ability of individuals to react to stressors appropriately. Based on COR theory, individuals who are threatened by the potential or actual losses of resources are motivated to obtain, retain, foster, and protect valued resources for future needs (Hobfoll, 1989). COR theory allows us to consider challenge appraisals of job insecurity as personal resources which equip employees with additional resources to adjust to unpleasant changes imposed to the features of their job. In other words, challenge appraisals can help employees to deal with the perception of qualitative job insecurity through highlighting positive aspects of those changes implemented to their jobs. Therefore, a challenge appraisal of job insecurity is anticipated to result in less emotional and behavioral strains toward perceived job insecurity. This leads to the following hypothesis:

Hypothesis 4. Challenge appraisals of job insecurity will buffer the association between job insecurity and a) job satisfaction, b) emotional exhaustion, c) absenteeism, d) presenteeism

Method

Participants and procedure

In order to test our hypotheses, surveys were administered to 250 Iranian employees from a large public hospital located in the north-western region of Tehran, Iran. Participants included 25.20% male and 74.80% female employees from different departments of this hospital. The mean age of the participants was 33.56 years ($SD = 7.92$), and their mean work record was 10.3 years ($SD = 7.58$). 5.20% were professional employees (e.g., medical assistants, nurses, patient transferor, laboratory pathologist, radiologist), and 94.8% were staff employees (e.g., secretary, IT operator, shift planners). 42.80% had a permanent contract



while 57.20% had a temporary contract. Finally, 91.60% of respondents had received at least a college diploma while 8.40% had a high school diploma or less.

After we got an official permission letter from the scientific and ethical committees of the Medical University of Shahid Beheshti of Tehran, a targeted hospital was assigned to conduct this research. In this hospital, the surveys were distributed to the supervisors of each medical department and the research team provided them with additional information about how to complete each survey. Also, items of each scale were practiced with each of these supervisors to ensure all items are clear and understandable for supervisors and their subordinates. Moreover, supervisors were informed about the voluntary and anonymous nature of the data collection from participants. The research team requested them to complete surveys preferably during working hours. To ensure that participants were comfortable to respond to the questions, they were informed that only members of the research team would have access to the data. All scales of this study were translated from English to Persian using back-translation. The Persian language is the official language in Iran. All items were checked by a native English speaker and a native Persian speaker to ensure that items measure the same construct. The scales of this survey are introduced in the following section.

Measures

Qualitative job insecurity. This construct was measured with four items, tapping into similar aspects as the items of De Witte et al. (2010). This scale has previously been used in a study by Van den Broeck et al. (2014) and Urbanavičiūtė, Bagdžiūnienė, Lazauskaitė-Zabielskė, Vander Elst, and De Witte (2015). An example of the items is “I feel insecure about the characteristics and conditions of my job in the future”. All items are rated on a five-point Likert scale from 1 (*totally disagree*) to 5 (*totally agree*). A higher score shows a higher level of qualitative job insecurity. The reliability (*Cronbach alpha*) of this scale was .85.

Hindrance versus challenge appraisals of job insecurity. These appraisals were measured using eight items. Both hindrance and challenge appraisals were measured with 4 items. This scale was initially constructed in Belgium (Peeters, 2014) and was further adapted by Charkhabi, Pasini, De Witte (2015) in Italy and Iran. An item example of the hindrance appraisal component is “*Job insecurity undermines my work efforts*”. An item example of the



challenge appraisal component is “*Job insecurity gives me the feeling that I can achieve something*”. Respondents were asked to rate the items on a scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher scores reflect higher hindrance or challenge appraisal. The reliability (Cronbach alpha) of the hindrance and challenge components were .85 and .87 respectively⁵.

Emotional exhaustion. The Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach, Jackson & Leiter, 1996) was used to measure emotional exhaustion. The MBI-GS has three sub-scales; however, we only used the nine items of the emotional exhaustion subscale. An example of an item is “*I feel used up at the end of the workday*”. All items are scored on a 7-point frequency rating scale ranging from “0” (never) to “6” (daily). High scores reflect higher emotional exhaustion. The reliability (Cronbach alpha) was .93.

Job satisfaction. We used the 4-items scale of job satisfaction developed by Price (1997). An example of an item is “*Most days I am enthusiastic about my job*”. Respondents were asked to rate the items on a five point Likert scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher numbers reflect higher job satisfaction. The reliability (Cronbach alpha) was .83.

Absenteeism and presenteeism. These constructs were measured using the two items suggested by Guest, Isaksson, & De Witte (2010). These items are “*How often have you been absent from work due to your state of health over the last 6 months (pregnancy not taken into consideration)?*”, and “*How often have you gone to work despite feeling that you really should have stayed away due to your state of health over the last 6 months?*” for absenteeism and presenteeism respectively. Responses were recorded as a count of occasions ranging from never (0) to more than five times (5).

⁵ These reported reliabilities are related to the final version of this scale in which each component is measured by three items. This will be further explained in the CFA section of the results part.



Results

Preliminary analysis (CFA) on appraisals scale

Confirmatory factor analysis (CFA) was used to find the best factorial structure of the scale of hindrance vs. challenge appraisals of job insecurity. Three models were compared using CFA. Table 1 reports the results of this CFA and provides an overview of the fit indices for two different components within CFA. At first, the model with 8 items predicted by 1 general factor (cognitive appraisal) was estimated (Model 1). This model showed bad fit indexes (RMSEA = .24, CFI = .61, TLI = .46) and some very low factor loading (e.g., .35). Therefore we decided to test a two-factor model, considering separately hindrance (HI) and challenge (CH) appraisals' dimensions, with covariance between two factors (Model 2). This process was guided by the previous finding in the cognitive appraisals theory (Lazarus & Folkman, 1984). In Model 2, each factor contained four observed variables. Model 2 showed a great improvement in all fit indexes (RMSEA = .08, CFI = .96, TLI = .94) but two items due to low factor loading (.35) needed to be discarded (HI1 and CH1). Model 3 was composed by 6 items and two latent variables. In this model, each factor predicted 3 items (see Figure 2). For the hindrance component, the factor loading of items of HI2 (.76), HI3 (.73) and HI4 (.83) were statistically significant. For the challenge component, the factor loadings of items CH2 (.68), CH3 (.83), and CH4 (.78) were statistically significant (see Annex 2). In Model 3, fit indexes were excellent (RMSEA = .07, CFI = .98, TLI = .96) and the factor loadings were satisfactory. Therefore, in the final model (Model 3) both components of this scale were thus reduced to 3 items instead of 4.

Table 1. Goodness-of-Fit Indicators of challenge-hindrance appraisal scale ($N = 250$)

Models	χ^2	df	CFI	TLI	RMSEA*	SRMR	Δ CFI	Δ RMSEA
Model 1. One factor - 8 items	370.33	20	.61	.46	.24	.17	-	-
Model 2. Two factors - 8 items	40.09	23	.96	.94	.08	.04	-.35	.16
Model 3. Two factors - 6 items	20.70	8	.98	.96	.07	.04	-.02	.01

* CI = 95% confidence interval, *Note:* χ^2 = chi-square goodness of fit statistic; *df* = degrees of freedom; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA = Root-Mean-Square Error of Approximation; SRMR=standardized root mean square residual.

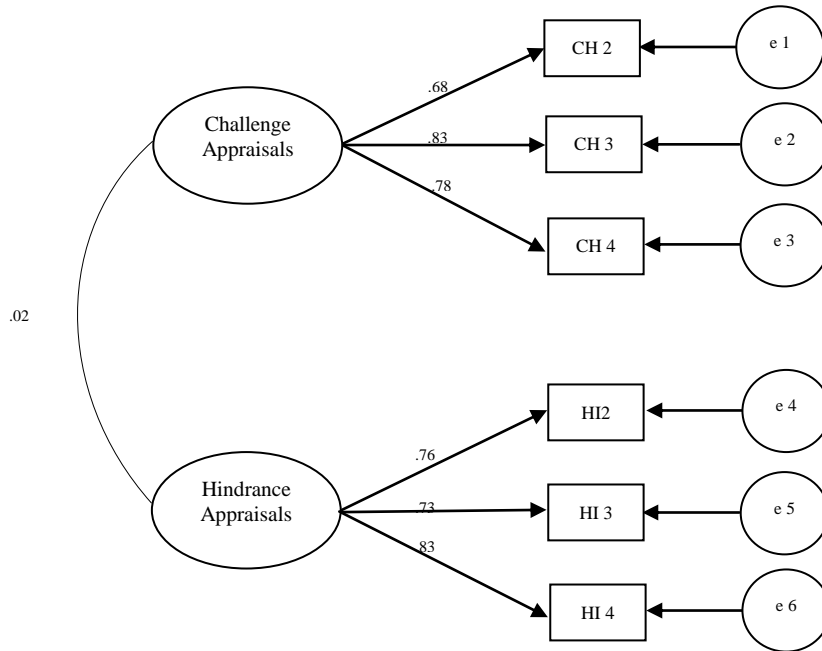


Figure 2. Measurement model of the challenge vs. hindrance appraisals of job insecurity in the total sample ($p < .001$)

Descriptive statistics

The descriptive statistics of the scales (means and standard deviations) and the Pearson correlations between the variables are reported in Table 2.

Table 2. Means, standard deviations, and correlations among the variables ($N = 250$)

Variable	Items	\bar{x}	SD	1	2	3	4	5	6	7
Job insecurity	4	3.34	.95	-	.137*	.449***	-.389***	.424***	-.014	-.202***
Challenge appraisal	3	3.09	.90		-	.243***	-.033	-.091	-.098	-.011
Hindrance appraisal	3	2.74	.97			-	-.156*	.213***	-.147	-.166*
Job satisfaction	4	2.84	.96				-	-.727***	.033	.122
Emotional exhaustion	9	3.47	1.03					-	.007	-.262***
Absenteeism	1	1.02	2.03						-	.278***
Presenteeism	1	3.97	4.05							-

* $p < .05$, ** $p < .01$, *** $p < .001$



As expected, qualitative job insecurity was significantly correlated with both psychological outcomes. More specifically, job insecurity was negatively correlated with job satisfaction ($r = -.38, p < 0.01$) and positively correlated with emotional exhaustion ($r = .42, p < 0.01$). These results are consistent with prior studies (e.g., Çetin & Turan, 2013; Urbanavičiūtė et al., 2015). Further analysis on behavioral outcomes associated with qualitative job insecurity showed that qualitative job insecurity is not significantly associated with absenteeism, but there is a negative relationship between qualitative job insecurity and presenteeism ($r = -.20, p < 0.01$). These results consistent with similar studies (e.g., Probst & Brubaker, 2001) showing that an increase in job insecurity is consistent with a decrease in presenteeism reported by employees. There was no association between challenge appraisals and both psychological and behavioral outcomes. However, the hindrance appraisals correlated with job satisfaction ($r = -.15, p < 0.05$), emotional exhaustion ($r = .21, p < 0.01$) and presenteeism ($r = -.16, p < 0.01$).

Test of the Moderating Role of Hindrance Appraisals

To test our hypotheses, a regression model similar to Figure 1 was constructed using the Process Program developed by Hayes (2012). Model 2 was selected to investigate the simultaneous effects of both moderators in the association between qualitative job insecurity and psychological and behavioral outcomes. Following Probst, Barbaranelli, and Petitta (2013) we used standardized score (z-scores) to test our hypotheses. The results are displayed in Table 3. As the table displays, qualitative job insecurity predicted job satisfaction ($\beta = -.45, p < .001$) and emotional exhaustion ($\beta = .46, p < .001$). As such, we found evidence for hypothesis 1a and 1b and therefore, these two hypotheses are confirmed. Qualitative job insecurity did not predict absenteeism, but predicted presenteeism ($\beta = -.51, p < .05$). Evidence was only found for hypothesis 2b.

Referring to Table 3, the test of moderation paths showed that the hindrance appraisals of job insecurity moderated the association between job insecurity and both psychological outcomes. To draw the interaction effects (slopes), we used the templates developed by Dawson (2014).

Table 3. Regression results (standardized regression coefficients) predicting the outcomes ($N = 250$)

Effect	β	SE	t	p
Direct effect of job insecurity on job satisfaction	-.45	.07	-6.83	.000
Challenge appraisal on job satisfaction	.06	.06	1.14	ns
Hindrance appraisal on job satisfaction	.09	.07	1.35	ns
Job insecurity \times challenge appraisal on job satisfaction	-.09	.04	-1.97	.04
Job insecurity \times hindrance appraisal on job satisfaction	-.14	.06	-2.55	.01
$R^2 = .19$; $F(5, 239) = 11.84$, $p < .000$				
Effect	β	SE	t	p
Direct effect of job insecurity on emotional exhaustion	.46	.06	7.11	.000
Challenge appraisal on emotional exhaustion	-.21	.06	-3.52	.000
Hindrance appraisal on emotional exhaustion	.003	.07	.04	ns
Job insecurity \times challenge appraisal on emotional exhaustion	.09	.05	1.93	ns
Job insecurity \times hindrance appraisal on emotional exhaustion	.11*	.05	2.12	.03
$R^2 = .24$; $F(5, 239) = 15.16$, $p < .000$				
Effect	β	SE	t	p
Direct effect of job insecurity on absenteeism	.04	.12	.33	ns
Challenge appraisal on absenteeism	-.09	.11	-.81	ns
Hindrance appraisal on absenteeism	-.19	.12	-1.55	ns
Job insecurity \times challenge appraisal on absenteeism	-.17	.09	-1.97	ns
Job insecurity \times hindrance appraisal on absenteeism	.16	.10	-1.56	ns
$R^2 = .044$; $F(5, 239) = 2.07$, $p < .000$				
Effect	β	SE	t	p
Direct effect of job insecurity on presenteeism	-.51	.24	-2.05	.04
Challenge appraisal on presenteeism	-.08	.23	.36	ns
Hindrance appraisal on presenteeism	-.29	.26	-1.12	ns
Job insecurity \times challenge appraisal on presenteeism	-.05	.18	-.29	ns
Job insecurity \times hindrance appraisal on presenteeism	.17	.21	.81	ns
$R^2 = .042$; $F(5, 239) = 2.12$, $p < .062$				

$p < .05$, $p < .01$, $p < .001$

Figure 3 is displaying the moderating effects of hindrance appraisals on the association between job insecurity and job satisfaction. A hindrance appraisal of job insecurity moderated the association between qualitative job insecurity and job satisfaction ($\beta = -.14$, $p < 0.01$). Also, following the recommendation of Dawson (2014), we divided moderator into low and high values based on the outcome of Process program in which low and high values for quantitative moderators are mean and minus/plus one SD from mean. We found that a low level ($\beta = -.30$, $p < 0.0001$) and a high level ($\beta = -.59$, $p < 0.0001$) of hindrance appraisals



similarly amplified the link between qualitative job insecurity and job satisfaction. The two coefficients show that the association between job insecurity and job satisfaction is stronger when one scores high on hindrance appraisals compared to when one scores low.

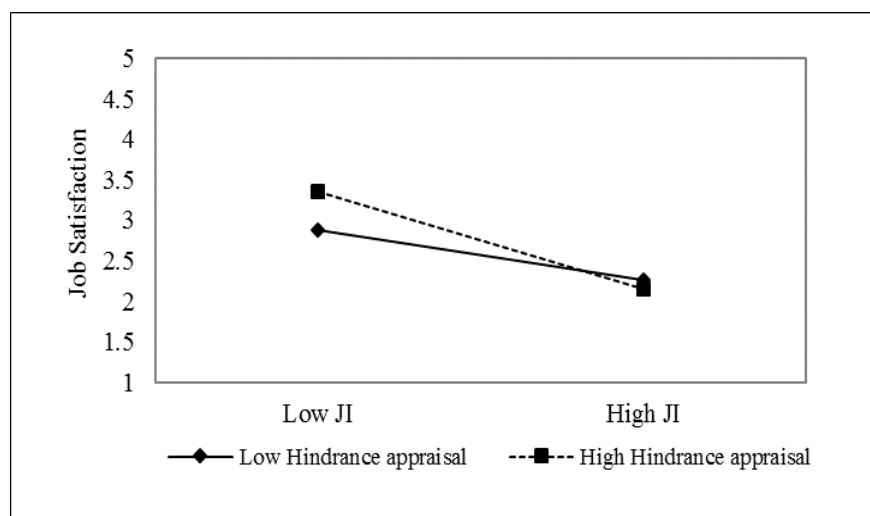


Figure 3. Interaction of qualitative job insecurity \times hindrance appraisals on job satisfaction

Figure 4 is displaying the moderating effects of hindrance appraisals on the association between job insecurity and emotional exhaustion. A hindrance appraisal of job insecurity moderated the association between qualitative job insecurity and emotional exhaustion ($\beta = .11, p < 0.05$). Following Dawson (2014), a low level ($\beta = .35, p < 0.0001$) and high level ($\beta = .53, p < 0.0001$) of hindrance appraisals similarly amplified the link between qualitative job insecurity and emotional exhaustion. The two coefficients show that the association between job insecurity and emotional exhaustion is stronger when an employee scores high on hindrance appraisals compared to when one scores low.

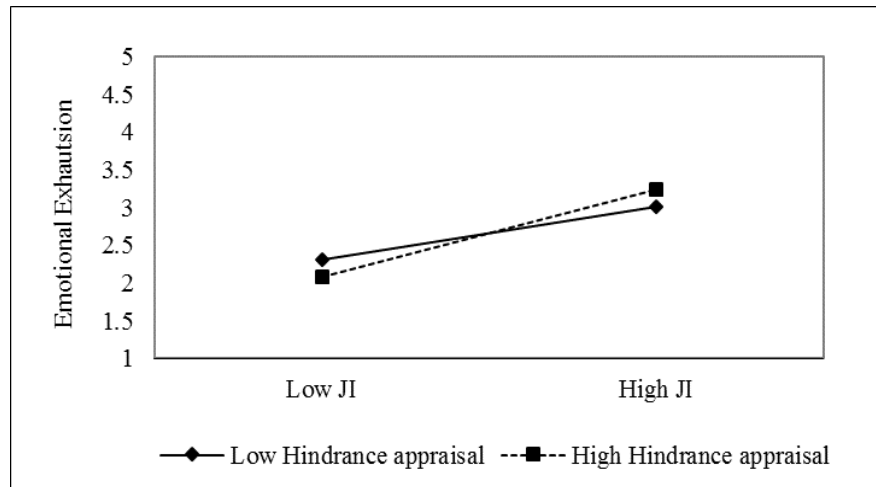


Figure 4. Interaction of qualitative job insecurity \times hindrance appraisals on emotional exhaustion

Further analysis was performed to test the possible moderation effects of hindrance appraisals in the association between qualitative job insecurity and behavioral outcomes (absenteeism and presenteeism). The results showed that these appraisals did not moderate these associations. Therefore, evidence was only found for hypotheses 3a and 3b and hypotheses 3c and 3d were refuted.

Test of the Moderating Effects of Challenge Appraisals

In the second part of our analysis, we tested the moderating impact of challenge appraisals in the association between qualitative job insecurity and both psychological and behavioral outcomes. As table 3 shows, we found that a challenge appraisal of job insecurity moderated the association between qualitative job insecurity and job satisfaction ($\beta = -.09, p < 0.05$), but it did not moderate the association between qualitative job insecurity and emotional exhaustion. Figure 5 displays the moderating effect of a challenge appraisal in the association between job insecurity and job satisfaction. As the Figure shows, a challenge appraisal of job insecurity, unexpectedly, amplified the association between qualitative job insecurity and job satisfaction ($\beta = -.14, p < 0.05$). Following Dawson (2014), a low level ($\beta = -.28, p < 0.0001$) and high level ($\beta = -.49, p < 0.0001$) of challenge appraisals similarly amplified the link between qualitative job insecurity and job satisfaction. Unlike our hypothesis, the challenge appraisals, similar to hindrance appraisals, amplify the association between qualitative job



insecurity and job satisfaction. Therefore, evidence was not found for the hypotheses 4a, and 4b, and thus they were refuted.

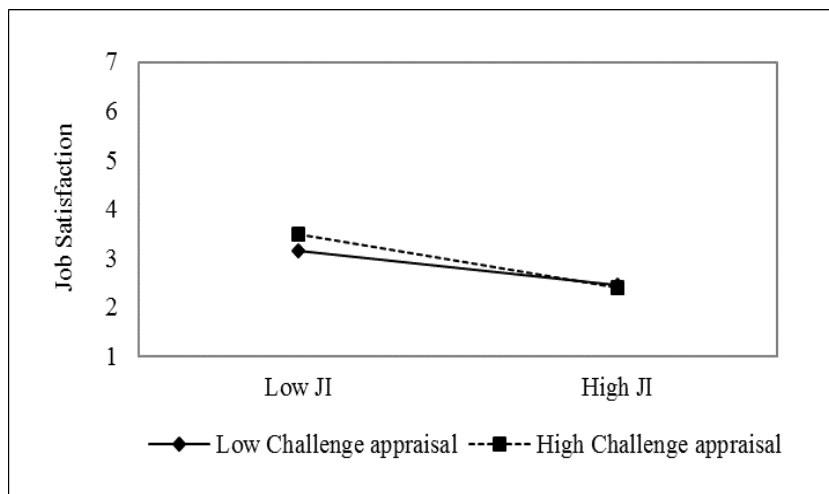


Figure 5. Interaction of qualitative job insecurity \times challenge appraisals on job satisfaction

Further analysis was performed to test the moderation effects of challenge appraisals in the association between qualitative job insecurity and both behavioral outcomes (absenteeism and presenteeism). Results showed that a challenge appraisal of job insecurity did not moderate the job insecurity-absenteeism association and the job insecurity-presenteeism association. Overall, no evidence was found for hypotheses 4c, and 4d, and therefore they were refuted.

Discussion

The current study, on the one hand, aimed at a detailed inspection of the association between qualitative job insecurity and psychological and behavioral outcomes, and on the other hand, examined the extent to which hindrance and challenge appraisals of job insecurity can moderate this association. As our regression analysis suggested, qualitative job insecurity was significantly associated with decreased job satisfaction and increased emotional exhaustion. This finding is consistent with previous studies that found when employees are worried about losing their job features (e.g., salary, position, colleagues), they report more psychological or behavioral strains (e.g., Hellgren, Sverke, & Isaksson, 1999; Van den



Broeck, Sulea, Vander Elst, Fischmann, Ilescu, De Witte, 2014). In support of this finding, appraisal theory (Lazarus & Folkman, 1984) predicts stressful life/work events (e.g., losing the features of the job) are more likely to decrease positive outcomes or increase negative outcomes. This reaction to threat would be indeed an emotional disagreement or effort to protect their job features against the attacking threat. The rather similar correlation (in strength) between qualitative job insecurity and both psychological outcomes may represent that either reaction could be expected when employees are unable to predict how their job will look like in the future. The correlation coefficient results also showed that the impact of qualitative job insecurity on behavioral outcomes is not similar. Qualitative job insecurity appeared more detrimental for presenteeism and not appeared detrimental for absenteeism. As an explanation, according to the study of Bierla, Huver, Richard (2012), presenteeism is considered to indicate the commitment and loyalty of employees to their employer (Bierla, Huver, Richard, 2012). When employees are threatened to lose some of their job features, they are more likely to reduce this established commitment and loyalty to their employer through behavioral withdrawal reactions such as presenteeism (Probst & Brubaker, 2001). In all, these correlations provided enough empirical support that qualitative job insecurity, as a chronic stressor, is negatively associated with well-being related outcomes (Sverke & Hellgren, 2002; De Witte, De Cuyper, Handaja, Sverke, Naswall, Hellgren, 2010).

The results of moderation test revealed that the cognitive appraisals of employees do not moderate the association between qualitative job insecurity and studied outcomes similarly. The hindrance appraisals of job insecurity amplified the association between qualitative job insecurity and psychological outcomes, but they did not moderate the association between qualitative job insecurity and behavioral outcomes. This finding can be supported by appraisal theory (Folkman & Lazarous, 1984). Accordingly, the anticipation of losing the features of the job may warn the incidence of a bigger loss (e.g., the job itself) in the perception of employees. Indeed a small loss (e.g., losing job features) may warn that a bigger loss (e.g., losing job itself) may also occur. In doing so, a hindrance appraisal of losing job features not only may intensify the feeling of insecurity among employees, but also it may stimulate employees to overestimate that threat (due to the anticipation of a bigger loss), and therefore react very negatively. This is well-matched with this finding that hindrance



appraisals of a threat, by increasing the negative anticipations (instead of positive anticipations) about how the job will look like in the future, may result in negative outcomes (Barsky, Kaplan, & Beal, 2011; Weiss, Suckow, & Cropanzano, 1999). This may even be more likely an issue when the employees do not have sufficient personal resources to deal or adjust with this threat (De Witte, 2005; Sverke, Hellgren, & Näswall, 2002). Such situation can be exemplified when a lack of perceived control, as a personal resource, undermines the coping ability of employees to deal with perceived job insecurity in an efficient way (Vander Elst, De Witte, De Cuper, 2011). The unobserved moderating role of hindrance appraisal of job insecurity in the association between job insecurity and behavioral outcomes could also be due to contextual reasons. For example, finding a new job in public sectors of Iran is not easy and most employees prefer to hold their current jobs even though they lose some of their job features. Another reason could be related to the heavy penalties of public organizations for absent employees. In Iran, any absent without an official permission is not legally permitted. Employees who do not respect to this rule may penalize by a decrease in their salary or delay in their career development. In some cases, the employer may even decide to fire them as well. Regardless of whether employees highly appraise qualitative job insecurity as a hindrance or not, these contextual factors may encourage employees to voice their concern through their psychological responses (e.g., decreased job satisfaction) than with their behavioral responses (e.g., absenteeism). As such, a hindrance appraisal of job insecurity may additionally reinforce psychological responses and deter behavioral responses.

On the other hand, challenge appraisals of job insecurity did not buffer the association between job insecurity and both emotional and behavioral outcomes. That may show the moderator is not that strong or relevant to buffer these associations, as hypothesized. Surprisingly, a challenge appraisal of job insecurity amplified the association between qualitative job insecurity and job satisfaction. It shows a challenge appraisal of job insecurity can also significantly increase the negative association between qualitative job insecurity and job satisfaction. That means insecure employees who even have a positive anticipation toward the future of their job features tended to report less satisfaction. Although this amplification effect was weak and opposite of our hypothesis, it still can be justified: employees high on challenge appraisals are predicted to show greater positive anticipation toward how their job



will look like in the future, however, they may report lower job satisfaction to their employer to prevent the possibility of losing job features in the future. Comparing both appraisals, it seems the impact of the amplifying role of a hindrance appraisal of job insecurity is more tangible than the impact of the amplifying role of a challenge appraisal of job insecurity. More specifically, this shows that two cognitive appraisals did not have an equal impact on both psychological outcomes. This along with similar studies (e.g., Sverke, Hellgren, & Naswall, 2002) shows although both psychological outcomes are affected by qualitative job insecurity, the job satisfaction seems to be a more vulnerable outcome than emotional exhaustion when one worries about losing the features of his/her job in the future. Additionally, a challenge appraisal of job insecurity did not moderate the link between qualitative job insecurity and behavioral outcomes. On the one hand, this may show the importance of cognitive appraisals for psychological outcomes rather than behavioral outcomes. On the other hand, it may show that employees are more likely to react to perceived qualitative job insecurity through their psychological outcomes than their behavioral outcomes.

Strengths and Limitations

The findings of this study contribute to the test of consequences associated with qualitative job insecurity within the framework of stress theories such as cognitive appraisals theory and conservation of resources theory. This study also replicated the qualitative job insecurity-wellbeing association for the first time in Iran. Indeed, this study highlighted the importance of those threats that may pose to the features of the job, and also showed their association with psychological and behavioral outcomes of employees. This consistent replication provided more evidence on the negative association between job insecurity and employees' outcomes. Also, this study identified how cognitive moderators such as hindrance and challenge appraisals can amplify or buffer the dynamism of these associations. Three out of eight interaction effects were significant but only two of the three significant interactions were in line with the research hypotheses. Therefore, this showed that the cognitive appraisals of employees hardly play a moderating role in the association between qualitative job insecurity and its psychological and behavioral outcomes. This study also contains some limitations that we would like to address. First, the generalization of these results might be



limited because the sample of this study only represents employees from the public sector (Çetin & Turan, 2013). There are also great numbers of employees who are employed in private hospitals in Iran but this study did not consider them. Therefore attaining a more diverse and representative sample would recommend for the future studies. Second, as the current findings are based on a cross-sectional study, we recommend future studies to use a longitudinal study to check whether the impact of qualitative job insecurity on various outcomes is consistent over time or not. Third, the answers of the respondents might be biased by social desirability bias (Podsakoff et al., 2003). This may happen due to applying a self-reported survey in this study. Although the research team emphasized that the answers only will be used for the academics purposes, still participants may have had the desire to answer based on the expectations of hospital supervisors or our research team. As such, we recommend future studies to replicate our findings using methods that can reduce the social desirability such as experimental studies or interviews. Fourth, in this study, we did not consider the role of demographic information such as gender or education as well as the organizational rules such as organizational penalties or rewards. We highly recommend future studies to take these two factors into consideration when they use absenteeism and presenteeism as behavioral outcomes.

Conclusion

This present study expanded empirical evidence on qualitative job insecurity, its impact on psychological and behavioral well-being, and its cognitive moderators in Iran. Additionally, it added additional support for the view that qualitative job insecurity, as a chronic work stressor, is associated with employees' well-being by testing its impact on a wide range of psychological and behavioral outcomes. Our main finding was that insecure employees are more likely to show their concern through their psychological responses than their behavioral responses. Besides, insecure employees high on hindrance appraisal toward losing the features of their job in the future may additionally react to perceived qualitative job insecurity through psychological outcomes such as job dissatisfaction or emotional exhaustion. A challenge appraisal toward losing the features of their job in the future appeared



not to buffer these associations. Therefore, we cannot consider challenge appraisals of job insecurity as a protective cognitive factor in the job insecurity-wellbeing association.



References

- Adekiya, A. (2015). Perceived job insecurity: Its individual, organizational and societal effects. *European Scientific Journal*. (1), 100-118.
- Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, cause, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management journal*, 32(4), 803-829. doi:10.2307/256569
- Barsky, A., Kaplan, S. A., & Beal, D. J. (2011). Just feelings? The role of affect in the formation of organizational fairness judgments. *Journal of Management*, 37(1), 248-279. doi:10.1177/0149206310376325
- Bidwell, M. J. (2013). What happened to long-term employment? The role of worker power and environmental turbulence in explaining declines in worker tenure. *Organization Science*, 24(4), 1061-1082. doi:10.1287/orsc.1120.0816
- Bierla, I., Huver, B., & Richard, S. (2012). New evidence on absenteeism and presenteeism. *The International Journal of Human Resource Management*, 24(7), 1536-1550. doi:10.1080/09585192.2012.722120
- Burgard, S. A., Brand, J. E., & House, J. S. (2009). Perceived job insecurity and worker health in the United States. *Social science & medicine*, 69(5), 777-785. doi:10.1016/j.socscimed.2009.06.029
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among US managers. *Journal of applied psychology*, 85(1), 65. doi:10.1037/0021-9010.85.1.65
- Çetin, C., & Turan, N. (2013). The relationship between qualitative job insecurity and burnout. *European Journal of Research and Education*, Special issue: Human Resource Management, 21-28.
- Charkhabi, M., Pasini, M., & De Witte, H. (2015). Job Insecurity: Hindrance or Challenge? A Pilot Study on a Job Insecurity Appraisal Scale by the Cognitive Interview Method. Poster presented at The 17th European Congress of Work and Organizational Psychology, Oslo, Norway 20–23 May 2015



- Cheng, G. H., & Chan, D. K. (2008). Who Suffers More from Job Insecurity? A Meta-Analytic Review. *Applied Psychology*, 57(2), 272-303. doi:10.1111/j.1464-0597.2007.00312.x
- Chirumbolo, A., & Areni, A. (2005). The influence of job insecurity on job performance and absenteeism: The moderating effect of work attitudes. *SA Journal of Industrial Psychology*, 31(4). doi:10.4102/sajip.v31i4.213
- Collins, S. M., Karasek, R. A., & Costas, K. (2005). Job strain and autonomic indices of cardiovascular disease risk. *American Journal of Industrial Medicine*, 48(3), 182-193. doi:10.1002/ajim.20204
- Dawson, J. F. (2014). Templates for Interpreting interaction effects. Retrieved from <http://www.jeremydawson.co.uk/slopes.htm>
- De Beer, L. T., Rothmann Jr, S., & Pienaar, J. (2016). Job insecurity, career opportunities, discrimination and turnover intention in post-apartheid South Africa: examples of informative hypothesis testing. *The International Journal of Human Resource Management*, 27(4), 427-439. doi:10.1080/09585192.2015.1020446
- De Witte, H., & Näswall, K. (2003). 'Objective' vs 'Subjective' Job Insecurity: Consequences of Temporary Work for Job Satisfaction and Organizational Commitment in Four European Countries. *Economic and Industrial Democracy*, 24(2), 149-188. doi:10.1177/0143831x03024002002
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4). doi:10.4102/sajip.v31i4.200
- De Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 Years of Longitudinal Studies on the Association Between Job Insecurity and Health and Well-Being: Is There Causal Evidence?. *Australian Psychologist*, 51(1), 18-31. doi:10.1111/ap.12176
- De Witte, H., De Cuyper, N., Handaja, Y., Sverke, M., Näswall, K., & Hellgren, J. (2010). Associations between quantitative and qualitative job insecurity and well-being: A test in Belgian banks. *International Studies of Management & Organization*, 40(1), 40-56. doi:10.2753/imo0020-8825400103



- Falco, A., Dal Corso, L., De Carlo, A., & Di Sipio, A. (2008). Effects of Temporary Job Contracts on the well-being of individuals and organizations. *Testing, Psychometrics, Methodology in Applied Psychology*, 15(4): 193-209.
- Ferrie, J. E., Shipley, M. J., Marmot, M. G., Martikainen, P., Stansfeld, S. A., & Smith, G. D. (2001). Job insecurity in white-collar workers: Toward an explanation of association with health. *Journal of occupational health psychology*, 6(1), 26. doi:10.1037//1076-8998.6.1.26
- Gal, Y., & Minzili, Y. (2011). *The Economic Impact of International Sanctions on Iran*. Paper presented at The Eleventh Annual Herzliya Conference, Israel.
- Garrow, V. (2016). *Presenteeism: A review of current thinking* (507). Retrieved from Institute for Employment Studies website: http://www.employment-studies.co.uk/system/files/resources/files/507_0.pdf
- Gazzaniga, M.S., & Heatherton, T.F. (2003). Psychological science. New York: Norton. Pages 290-291 and 327-333.
- Golden, L. (2011). *The effects of working time on productivity and firm performance: a research synthesis paper* (33). Retrieved from International Labour Office-Geneva website:http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_187307.pdf
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management review*, 9(3), 438-448. doi:10.2307/258284
- Guest, D. E., Isaksson, K., & De Witte, H. (2010). *Employment contracts, psychological contracts, and employee well-being: an international study*. Oxford University Press.
- Hamad, R., Modrek, S., & Cullen, M. R. (2015). The Effects of Job Insecurity on Health Care Utilization: Findings from a Panel of U.S. Workers. *Health Serv Res*, n/a-n/a. doi:10.1111/1475-6773.12393
- Harrison, D. A., & Martocchio, J. J. (1998). Time for Absenteeism: A 20-Year Review of Origins, Offshoots, and Outcomes. *Journal of Management*, 24(3), 305-350. doi:10.1177/014920639802400303



- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology, 8*(2), 179-195. doi:10.1080/135943299398311
- Heponiemi, T., Elovainio, M., Pentti, J., Virtanen, M., Westerlund, H., Virtanen, P., ... & Vahtera, J. (2010). Association of contractual and subjective job insecurity with sickness presenteeism among public sector employees. *Journal of Occupational and Environmental Medicine, 52*(8), 830-835. doi:10.1097/jom.0b013e3181ec7e23
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist, 44*(3), 513. doi:10.1037/0003-066x.44.3.513
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology, 50*(3), 337-421. doi:10.1111/1464-0597.00062
- Johns, G. (2010). Presenteeism in the workplace: A review and research agenda. *Journal of Organizational Behavior, 31*(4), 519-542. doi:10.1002/job.630
- Låstad, L. (2015). *Job insecurity climate: The nature of the construct, its associations with outcomes, and its relation to individual job insecurity* (Unpublished doctoral dissertation). Stockholm University, Sweden.
- László, K. D., Pikhart, H., Kopp, M. S., Bobak, M., Pajak, A., Malyutina, S., Salavecz, G. & Marmot, M. (2010). Job insecurity and health: A study of 16 European countries. *Social science & medicine, 70*(6), 867-874. doi:10.1016/j.socscimed.2009.11.022
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal, 48*(5), 764-775. doi:10.5465/amj.2005.18803921



- Marsh, H. W. (2001). Distinguishing Between Good (Useful) and Bad Workloads on Students' Evaluations of Teaching. *American Educational Research Journal*, 38(1), 183-212. doi:10.3102/00028312038001183
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). Maslach burnout inventory manual. Mountain View, CA: CPP. Inc., and Davies-Black.
- Munro, L. (2007). Absenteeism and presenteeism: possible causes and solutions. *The south African Radio Grapher Journal*. 45 (1): 21-23.
- Peeters, J. (2014). *Jobonzekerheid als werkeis: hindernis of uitdaging? (Job insecurity as work demand: hindrance or challenge?)*. Master thesis defended to obtain the degree of Master of Science in Psychology (supervisor: Hans De Witte), Faculty of Psychology and Educational Sciences, KU Leuven, Leuven.
- Podsakoff, P. M., MacKenzie, S. B., Podsakoff, N. P., & Lee, J. Y. (2003). The measure of management and its implications for leadership research. *The Leadership Quarterly*, 14(6), 615-656. doi:10.1016/j.leaqua.2003.08.002
- Price, J.L. (1997), Handbook of Organizational Measurement, *International Journal of Manpower*, 18: 303- 558.
- Probst, T. M., & Brubaker, T. L. (2001). The effects of job insecurity on employee safety outcomes: Cross-sectional and longitudinal explorations. *Journal of Occupational Health Psychology*, 6(2), 139-159. doi:10.1037//1076-8998.6.2.139
- Probst, T. M. (2003). Development and validation of the Job Security Index and the Job Security Satisfaction Scale: A classical test theory and IRT approach. *Journal of Occupational and Organizational Psychology*, 76, 451–467.
- Probst, T. M. (2004). Safety and insecurity: Exploring the moderating effect of organizational safety climate. *Journal of Occupational Health Psychology*, 9, 3-10
- Probst T.M., Barbaranelli C., Petitta L. (2013). The Relationship between Job Insecurity and Accident Under-reporting: A Test in Two Countries. *Work & Stress*, 27(4),383-402. DOI:10.1080/02678373.2013.850756
- Richter, A., Näswall, K., Bernhard-Oettel, C., & Sverke, M. (2013). Job insecurity and well-being: The moderating role of job dependence. *European Journal of Work and Organizational Psychology*, 23(6), 816-829. doi:10.1080/1359432x.2013.805881



- Schaufeli, W. B. (2016). Job Insecurity Research is Still Alive and Kicking Twenty Years Later: A Commentary. *Australian Psychologist*, *51*(1), 32-35. doi:10.1111/ap.12201
- Schreurs, B., Van Emmerik, H., Notelaers, G., & De Witte, H. (2010). Job insecurity and employee health: The buffering potential of job control and job self-efficacy. *Work & Stress*, *24*(1), 56-72. doi:10.1080/02678371003718733
- Sender, A., Arnold, A., Staffelbach, B. (2016). "Job Security as a Threatened Resource: Reactions to Job Insecurity in Culturally Distinct Regions". *The International Journal of Human Resource Management*, doi: 10.1080/09585192.2015.1137615
- Setayesh, S., & Mackey, T. K. (2016). Addressing the impact of economic sanctions on Iranian drug shortages in the joint comprehensive plan of action: promoting access to medicines and health diplomacy. *Globalization and Health*, *12*(1):31. doi:10.1186/s12992-016-0168-6
- Shedden, P., Smith, W., Scheepers, R., & Ahmad, A. (2009, January). Towards a knowledge perspective in information security risk assessments—an illustrative case study. In *20th Australasian Conference on Information Systems, Melbourne, Australia*.
- 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
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *Journal of occupational health psychology*, *7*(3), 242. doi:10.1037//1076-8998.7.3.242
- Sverke, M., Hellgren, J., & Näswall, K. (2006). *Job insecurity: A literature review*. Retrieved:<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.517.3749&rep=rep1&type=pdf>
- Turner, M., & Lingard, H. (2016). Improving workers' health in project-based work: job security considerations. *International Journal of Managing Projects in Business*, *9*(3), 606-623. doi:10.1108/ijmpb-08-2015-0070
- Urbanavičiūtė, I., Bagdžiūnienė, D., Lazauskaitė-Zabielskė, J., Vander Elst, T., & De Witte, H. (2015). The role of career factors in qualitative and quantitative job insecurity: a



- study in different organizational contexts. *International journal of psychology: a biopsychosocial approach*, 16, 23-45. doi:10.7220/2345-024x.16.2
- Van den Broeck, A., Sulea, C., Vander Elst, T., Fischmann, G., Iliescu, D., & De Witte, H. (2014). The mediating role of psychological needs in the relation between qualitative job insecurity and counterproductive work behavior. *Career Development International*, 19(5), 526-547.
- Vander Elst, T., Richter, A., Sverke, M., Näswall, K., De Cuyper, N., & De Witte, H. (2014). Threat of losing valued job features: The role of perceived control in mediating the effect of qualitative job insecurity on job strain and psychological withdrawal. *Work & Stress*, 28(2), 143-164. doi:10.1080/02678373.2014.899651
- Vander Elst, T. V., De Cuyper, N., & De Witte, H. (2011). The role of perceived control in the relationship between job insecurity and psychosocial outcomes: moderator or mediator?. *Stress and Health*, 27(3), 215-227. doi:10.1002/smi.1371
- Vander Elst, T., De Witte, H., & De Cuyper, N. (2014). The Job Insecurity Scale: A psychometric evaluation across five European countries. *European Journal of Work and Organizational Psychology*, 23(3), 364-380. doi:10.1037/e572992012-050
- Vander Elst, T., Van den Broeck, A., De Cuyper, N., & De Witte, H. (2014). On the reciprocal relationship between job insecurity and employee well-being: Mediation by perceived control?. *Journal of Occupational and Organizational Psychology*, 87(4), 671-693. doi:10.1111/joop.12068
- Van Vuuren, T., Klandermans, B., Jacobson, D., & Hartley, J. (1991). Employees' reactions to job insecurity. *Job insecurity: Coping with jobs at risk*, 79-103. London: Sage Publications.
- Wan Yusoff, W.T., Che Mat, C.R., Zainol, R.M (2014). Predictors and consequences of job insecurity: A preliminary study of Malaysian bank employees. *Malaysian Journal of Society and Space*, 10 (3): 18-32.
- Webster, J. R., Beehr, T. A., & Love, K. (2011). Extending the challenge-hindrance model of occupational stress: The role of appraisal. *Journal of Vocational Behavior*, 79(2), 505-516. doi:10.1016/j.jvb.2011.02.001



Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, 84(5), 786-794. doi:10.1037//0021-9010.84.5.786



2017	<h1>Chapter IV:</h1> <h2>Quantitative Job Insecurity and Boundaryless Career Orientation</h2>
------	--



Boundaryless Career Orientation A Buffer or Amplifier in the Face of Job Insecurity in the USA and Belgium?

This chapter is adapted from the following publication:

Charkhabi, M., Probst, T., & De Witte, H. (revise & resubmit, 2017). Boundaryless Career Orientation: A buffer or Amplifier in the Face of Job Insecurity in the USA and Belgium? *Work & Stress*.

Abstract

The aim of this study is to test the extent to which a Boundaryless Career Orientation (BCO) moderates the impact of job insecurity (JI) on job strains and coping reactions. Based on prior research suggesting that psychological contract breach (PCB) mediates the effects of JI on strains and coping reactions, the current 2-country study tested a moderated mediation model in which BCO moderates the JI-outcomes relationships, as well as employee responses to PCB. The first path is based on appraisal theory, suggesting that employees with high BCO may view JI in a less negative light. The second path is based on conservation of resources theory, which suggests that BCO may serve as a valuable resource in coping with the stressor of PCB. To test our model, data were obtained from two heterogeneous samples of the U.S. (Study1; N=1071) and Belgium (Study2; N=348). Results from both studies consistently revealed that PCB mediated the association between JI and outcomes, while BCO demonstrated somewhat different moderating effects between the two countries. Not all interactions were significant and some of the significant ones were in the opposite direction. In all, BCO can be considered a personal resource when the outcomes are positive.

Keywords: *job insecurity, boundaryless career orientation, psychological contract breach, moderating effect, mediating effect*



Introduction

Job insecurity (JI) as a chronic psychological stressor influences employees and organizations at a global level (Heaney, Israel & House, 1994; De Witte, 2005; De Witte, Vander Elst, & De Cuyper, 2015). This stressor is characterized as the overall concern of employees about the continued existence of the job in the future (Vander Elst, De Cuyper & De Witte, 2011). Economic recessions, rising global competition, and employment conditions are some of the important factors that prompt the perception of JI among employees (Burgard, Brand, & House, 2009; Probst, 2005). A considerable amount of research demonstrates that JI is related to a wide range of negative outcomes. Specifically, at the individual level, it has been linked to poor mental health (Hamad, Modrek, Cullen, 2015), increased emotional exhaustion (Piccoli & De Witte, 2015) and psychological distress at work (Cheng & Chan, 2008). Furthermore, at the organizational level, JI negatively influences attitudinal outcomes such as job satisfaction (Burgard, Kalousova, & Seefeldt, 2012) and work engagement (Schaufeli, 2016).

Recent studies demonstrate that the perception of JI is intensified by economic crises such as the recent global recession that began in 2008 in the US and the EU (Briscoe, Schuler, & Tarique, 2012). In response to the financial crises employees might have differential reactions to the potential threat posed to their job (Lazarus & Folkman, 1984). On the one hand, some employees may prefer to hold their current job with some uncertainty surrounding the future of the job; on the other hand, others may prefer to seek out external job opportunities to leave the insecure situation (Segers, Inceoglu, Vloeberghs, Bartram, Henderickx, 2008). These differing perspectives reflect the employee's Boundaryless Career Orientation (BCO). BCO "involves a career that transcends the boundary of a single employer" (Granrose & Baccili, 2006, p. 164), and is based on individual career goals rather than specific organizational goals (Arthur & Rousseau, 1996). Individuals with high BCO are characterized by a high mobility tendency to navigate physically and/or psychologically across many organizations. In contrast, individuals with a low BCO may prefer to continue their current job in the same organization (Sullivan & Arthur 2006; Volmer & Spurk, 2011). Using Conservation of Resources theory (Hobfoll, 1989) as a theoretical framework, we conceptualize BCO as a personal resource that might potentially moderate the relationship



between JI and outcomes. Specifically, we propose that employees with a high BCO exhibit greater flexibility to leave an insecure job and feel more capable of finding an alternative job in another organization (Gubler, Arnold, & Coombs, 2014). As such, employees with a high BCO tendency may be less influenced by the threat of job loss. This highlights our first objective, which is to investigate the role of BCO as a potential moderator that may enhance or weaken the association between JI and its outcomes.

Furthermore, previous research has shown that the relationship between JI and outcomes is not direct, but rather is mediated by the perceived psychological contract breach between organization and employee (e.g., Vander Elst, De Cuyper, Baillien, Niesen, & De Witte, 2016). The psychological contract between employees and their organization refers to expectations of exchanging interdependent obligations towards each other (Coyle-Shapiro & Kessler, 2002). These exchanges are dynamic, socio-emotional and cover aspects such as job security and loyalty to establish and maintain a long-term employment relationship (Seopa, Wöcke, & Leeds, 2015). The threat of JI, as a breach of the psychological contract, may provoke the perception that the employer is unable to fulfill her/his promises in this exchange, which in turn may result in negative outcomes (Tekleab & Taylor, 2003; Vander Elst et al., 2016). As we introduced BCO as a potential personal resource earlier, it is also expected that BCO moderates the association between JI and negative outcomes through providing job opportunities in which the employees feel valued and respected and potentially benefit from a fair psychological contract rather than a violated psychological contract. This is likely to result in high BCO employees being less negatively influenced by psychological contract breach. As such, we propose BCO as a moderator which may buffer the mediation path (via PCB) between JI and the outcomes in a moderated mediation model.

Contributions of the present research

The current study contributes to the existing literature in several ways. First, by using COR theory to conceptualize BCO as a personal resource, we test the extent to which BCO operates as a protective coping mechanism that attenuates negative employee reactions to JI. Second, we extend knowledge on the nomological network of JI by integrating theoretical pathways of PCB (as a mediator) and BCO (as a proposed moderator) into one comprehensive



model while also examining multiple outcomes of job insecurity. Specifically, we apply social exchange theory (Homans, 1961; Tekleab & Taylor, 2003) to make predictions regarding the mediating role of PCB in the JI-outcomes relationships. Moreover, we rely on appraisal theory (e.g., Lazarus & Folkman, 1984; Schawarzer, 2001) and COR (Hobfoll, 1989) to make predictions regarding the moderating role of BCO in these relationships. Third, from a methodological standpoint, we enhance the generalizability of our study by testing our hypotheses across two countries: USA and Belgium. In doing so, we are able to test the boundary conditions of our findings and estimate the extent to which those results are stable across these countries. Finally, we test our hypotheses regarding the interplay of JI, PCB, and BCO on a range of known outcomes of JI that can be categorized into strains-related outcomes and coping reaction outcomes (Vander Elst et al., 2016). Job burnout and life satisfaction can be labeled as work-related strain and general strain respectively as they are physiological and affective reactions to demands or stressors (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). Turnover intentions can be labeled as a psychological coping reaction to demands or stressors as it is directed at dealing with a demanding stressor/situation (e.g., job insecurity or loss) in a psychological or behavioral way (Geurts, Schaufeli, & Rutte, 1999). In doing so, we are able to assess our hypotheses within the nomological network of JI (Cronbach & Meehl, 1995). Below, we begin our review of the literature by considering these outcomes of JI. Next, we discuss the theoretical foundation and empirical evidence for the mediating role of PCB. Finally, we develop hypotheses regarding the moderated mediation paths involving BCO.

Moving to an Integrated Model

Our purpose is to explain the relationship between JI and outcomes using two mechanisms, namely PCB and BCO. While these mechanisms relate to different theoretical streams, we draw on social exchange, appraisal and COR theories as possible routes for integration (Figure 1).



Job insecurity, Strains, and Coping Reactions

JI as a perceived threat can lead to negatives consequences at work (e.g., Schaufeli, 2016). This impact can be explained based on the cognitive appraisal theory (Lazarus & Folkman, 1984). According to this theory, personal resources and situational characteristics result in situational appraisals (known as primary and secondary appraisals). Primary appraisals refer to the evaluation of “what is at stake” with respect to one’s goals, motives and well-being in a particular situation (e.g., when the threat of potential job loss is perceived). More specifically, primary appraisals include threat appraisal of “harms or losses” that have not yet taken place but are anticipated to occur as well as challenge appraisal which focuses on the potential effort for “gain or growth” in a situation. Secondary appraisals concern evaluations of factors such as the resources needed to adjust to a stressful situation and the fairness of that situation (Barsky, Kaplan, & Beal, 2011; Weiss, Suckow, & Cropanzano, 1999; Vander Elst et al., 2016). The implication of this categorization is that the same stressor can be interpreted in different ways (Hobfoll, 1989). Whereas the primary appraisal is threatening, the secondary appraisal is dealing with the threat, and as such, individuals may experience strains at work or react more severely to the stressful situation.

Following appraisal theory, JI is an unpleasant situational stressor in which individuals may appraise a threat (primary appraisal). It may also be more critical when employees’ personal resources are not sufficient to deal with the perceived threat (secondary appraisal) (De Witte, 2005; Sverke, Hellgren, & Näswall, 2002). Supporting this line of reasoning, previous research has demonstrated that JI evokes negative outcomes such as poor work-related well-being (i.e., decreased work engagement and increased job burnout) and general health complications (i.e., depression, anxiety, headache and increased blood pressure) at workplace (De Witte et al., 2015; Cheng & Chan, 2008). Also, in a recent study, De Witte, Pienaar, and De Cuyper (2016) found substantial evidence for a causal path from JI to health and well-being related outcomes (rather than the other way around). Similarly, we expect that when employees perceive high levels of JI they may experience more strains or show more coping reactions, leading to the following hypothesis:

Hypothesis 1: JI will be: a) negatively related to life satisfaction b) positively related to job burnout, and c) positively related to turnover intentions.



The Mediating Role of Psychological Contract Breach

The psychological contract involves beliefs about reciprocal obligations and entitlements between employees and employers (Mirvis & Hall, 1996; Robinson & Morrison, 2000). Obligations are what employees will do for the employer and entitlements refer to what they expect to receive in return (McLeanParks, Kidder, & Gallagher, 1998). The psychological contract is mainly based on social exchange theory and the norm of reciprocity (Gouldner, 1960; Homans, 1961; Tekleab & Taylor, 2003). According to social exchange theory, when employers do not fulfill their promises and obligations to an employee, he or she reciprocates by altering his/her contributions to the organization (e.g., by reducing their efforts and performance) (Conway & Briner, 2005).

Following the extant literature on psychological contract theory, job security may be viewed an entitlement that employees expect to receive from their employer (Piccoli & De Witte, 2015). Accordingly, if an employee is investing effort and loyalty at a job as part of his obligations, but perceives that the employer is not returning security as part of his entitlements, will feel unfairly treated by the employer. This lack of job security may hurt a fair exchange between what the employee presents (loyalty, commitment and effort), and what that employer is committed to fulfill (job security and rewards) (De Cuyper & De Witte, 2007; Vander Elst, De Cuyper, Baillien, Niesen, De Witte, 2014). Subsequently, it may breach the reciprocal expectation in the psychological contract and leads to lack of reciprocity by the employee (Vander Elst, De Cuyper, & De Witte, 2011; Piccoli & De Witte, 2015). This breach represents a dominant concept in the psychological contract literature known as psychological contract breach (PCB) (Jiang, Probst, & Benson, 2015). Not surprisingly, numerous empirical (e.g., Chambel & Oliveira-Cruz, 2010; Vander Elst et.al, 2016) and meta-analytic studies (e.g., Cantisano, Morales, & Depolo, 2008) have found that PCB is related to negative attitudinal outcomes including job dissatisfaction and increased job burnout. Additionally, substantial organizational changes may also intensify individuals' negative reactions to PCB (Turnley & Feldman, 1998).

The above argument leads us to expect that the relationship between JI and outcomes will likely be mediated by PCB. Indeed, Vander Elst et al. (2016) provide initial support for this linkage of JI- to outcomes. This is consistent with the framework of social exchange



theory (Homans, 1961; Tekleab & Taylor, 2003), which suggests that employees who have invested their resources (e.g., their loyalty and effort) in the organization but fail to gain promised resources (e.g., job security) from the organization may perceive fewer received resources. This may be associated with the notion that they have an unfair deal with the organization. Hence, to reach a fair exchange, they are more likely to reduce their investments, which would not be a favored outcome for the organization, or they may keep working under an unfair exchange condition, resulting in negative outcomes (Rodwell & Gulyas, 2015). This highlights that the lack of job security is more likely to be considered a meaningful breach of the psychological contract between employee and organization. Equally important, some studies have suggested that PCB is more likely to be felt when employees are expecting to receive the security of job from their employer such as a situation in which employees have a permanent or fixed contract with their organization (De Cuyper & De Witte 2006, 2007; De Cuyper, et al., 2010). Consistent with prior studies conducted in Europe that found the association between JI and strains/coping reactions is mediated by PCB (e.g., De Cuyper & De Witte, 2006, 2007; Vander Elst et al., 2016), we attempt to replicate the same path using a larger sample taken from the U.S. to increase the generalizability of our findings. In doing so, we developed the following hypothesis:

Hypothesis 2. PCB mediates the relationship between JI and: a) life satisfaction, b) job burnout, and c) job turnover intentions

The Moderating Role of Boundaryless Career Orientation (BCO)

We believe that the association between JI and its outcomes is likely to vary depending on the BCO of the individuals. This is because BCO refers to degree that an employee desires to cross both objective and subjective dimensions of a career including organizational position, mobility, flexibility, work environment, and the opportunity structure while at the same time de-emphasizing reliance on organizational promotions and career paths (Arthur, 1994; Briscoe et al., 2006, p. 2). Based on this definition, BCO can be categorized as a “*boundaryless mindset*” (i.e. an individual’s career-related openness and curiosity) and “*organizational mobility preference*” (i.e. intra and inter-organizational moves, geographical



relocations, etc.) (Briscoe et al., 2006). While several researchers have examined BCO as a *boundaryless mindset* characterized by enjoying working on projects with people across many organizations and feeling energized and enthusiastic about engaging in new experiences and situations outside of the organization (Briscoe et al., 2006), the focus of this paper is on an individual's *actual* preference for organizational mobility (i.e., moving from organization to organization in order to advance one's career) rather than moving up the ladder within a single organization.

Organizational mobility preference refers to the tendency for an individual to physically cross different professions, enterprises, industries or countries (Volmer & Spurk, 2010; Sullivan & Arthur, 2006). This contrasts with an individual preference for job security, predictability and long-term employment (Fernandez & Enache, 2008), implying that individuals with a high organizational mobility preference choose to cross organizational boundaries and work in different organizations. This tendency toward mobility can be viewed from two negative and positive aspects. From a negative standpoint, lack of job predictability and seeking for a more secure employment opportunity may drive employees to be physically mobile (Briscoe et al., 2006). From a positive standpoint, a dynamic tendency for personal growth, knowledge, and desire to get more favorable benefits from elsewhere may encourage employees to be physically mobile from an organization to another (Sullivan & Arthur, 2006; Briscoe et al., 2006; Gunz, Evans, & Jalland, 2000).

BCO as a potential personal resource is expected to have a buffering role when individuals are encountered with a threat of job loss (i.e., Cappelli, 1999) which is supported by COR theory (Hobfoll, 1989). According to this theory, individuals seek to acquire and maintain resources that they can apply to accommodate, withstand, or overcome threats. They may accumulate material sources (e.g., homes, clothes, food), personal resources (e.g., self-esteem, self-confidence and optimism), conditions resources (e.g., status, social support, financial security), and energy resources (e.g., time, money, and knowledge). Stress often occurs when these resources are lost or threatened. Indeed, stressful or traumatic events consume these resources and reduce the ability of people to appropriately react to stressors.

Based on COR theory, individuals who are threatened by the potential or actual losses of resources are therefore motivated to obtain, retain, foster, and protect valued resources for



future needs (Hobfoll, 1989). A persistent threat (e.g., job insecurity) to valued resources (e.g., financial security) may culminate in negative outcomes such as job burnout (i.e., Hobfoll, 1989, 2001), job dissatisfaction (Burgard, Kalousova, & Seefeldt, 2012) or result in turnover intentions (Hobfoll & Shirom, 1993; Wright & Cropanzano, 1998). COR theory allows us to consider BCO as a personal resource, which equips employees with more resources for overcoming occupational stresses or a threat of job loss. In other words, BCO can help dealing with the perception of JI by maximizing secure alternative job opportunities available to the employee in other organizations. Nevertheless, not all employees have the desire to search these job opportunities in other organizations. We expect that those who have a higher tendency to desire alternative jobs in other organizations (high BCO employees) should be less influenced by JI. Therefore, BCO as a potential personal resource can be helpful in dealing with the perceptions of JI. We expect to observe a reduction (buffering effect) in the relationship between JI and life satisfaction (as a general strain) and job burnout (as a work-related strain) and amplification in turnover intentions (as a coping reaction) as displayed in the following hypothesis:

Hypothesis 3. BCO a) buffers the relationship between JI and life satisfaction, b) buffers the relationship between JI and job burnout, c) amplifies the relationship between JI and job turnover

The Moderating Role of BCO and Psychological Contract Breach

Previous studies have demonstrated that not all individuals react equally to psychological contract breach (Coyle-Shapiro, 2002; Restubog & Bordia, 2006). Some researchers have offered suggestions regarding how situational and attitudinal factors can potentially influence the PCB-outcomes relationship (Chrobot-Mason, 2003; Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; Dudley, & Cortina, 2008). Consistent with this line of research, BCO is an attitudinal factor that might play a buffering role in the PCB-outcome relationship. This contention is supported by social exchange theory (Homans, 1961; Tekleab & Taylor, 2003) and COR theory (Hobfoll, 1989), as mentioned.



Previous studies have shown that a lack of reciprocity triggers strains at work such as increased job burnout (i.e., Jamil, Raja, Daar, 2015), decreased life satisfaction (i.e., Conway & Briner, 2005), and coping reactions such as turnover intentions (i.e., Shore & Barksdale, 1998). These associations are also consistent with cognitive appraisal theory (Lazarus & Folkman, 1984), which states that when individuals are faced with a threat (e.g., lack of reciprocity) and they evaluate it as a hindrance; they are more likely to experience negative outcomes.

PCB resulting from a lack of reciprocity might be less threatening for employees with a high BCO. There are two explanations for this contention. First, individuals with a high BCO are more likely to have a dynamic and active tendency to seek an alternative job outside of their current organization where they can personally grow, get more knowledge and gain more favorable benefits (Gunz, Evans, & Jalland, 2000; Sullivan & Arthur, 2006; Nauta, Vianen, Heijden, Dam, & Willemssen, 2009). Second, according to COR theory, BCO is a potential personal resource that may help individuals to efficiently deal/cope with the threat of job loss (Hobfoll, 1989). Following this theory, when employees encounter a persistent threat that potentially undermines their resources; they begin to protect the valued resources (Hobfoll, 1989). In this regard, PCB is more likely to be perceived as a threat to valued resources (e.g., financial security) and may culminate in negative outcomes in terms of strain (Hobfoll, 1989, 2001; Burgard, Kalousova, & Seefeldt, 2012) or reactions (Hobfoll & Shirom, 1993; Wright & Cropanzano, 1998). Therefore, a high BCO should help employees to deal with the PCB by increasing their chance of finding job alternatives in other organizations and as such, equip them with potential alternative job opportunities in other organizations. This reduces their fear and concern about a possible job loss and may protect them to experience fewer strains at work. Supporting this line of reasoning, cognitive appraisal theory also indicates that individuals with sufficient personal resources who are faced with a stressor are less likely to experience negative outcomes (Lazarus & Folkman, 1984).

BCO deals with this lack of reciprocity through seeking secure job opportunities in other organizations. It may reduce the concern of the employee by giving more freedom to decide between working with an insecure contract (i.e., with a threat of job loss) in the current organization versus working with a secure contract in other organization (i.e., without a threat



of job loss). Upon this reasoning and as our literature review did not find a particular study that considered BCO as a personal resource that may moderate the mediation path of JI-PCB-outcomes; we argue that BCO will have a moderating effect in this mediation path. A higher level of BCO is expected to result in fewer strains (*job burnout and life satisfaction*) and more coping reactions (*turnover intention*). Thus, BCO is hypothesized to be a buffer of the mediation between PCB and strains and an amplifier of the association between PCB and coping reactions. This leads to the following hypothesis:

Hypothesis 4. BCO is hypothesized to a) buffer the indirect effect of JI on life satisfaction through PCB, b) buffer the indirect effect of JI on job burnout through PCB, c) amplify the indirect effect of JI on turnover intentions through PCB

Study 1: USA

Method

Participants and procedure

In order to test our hypotheses, surveys were administered to 1071 employees from 6 campuses of a large land grant university located in the northwestern region of the United States. This sample included classified staff (e.g., hourly, non-exempt employees) and administrative and professionals (e.g., salaried, exempt employees). The participation rate of the staff and professionals was approximately 30%. Of those who completed the survey, 64.3% were female; 34.3% male and 1.4% chose not to report their gender. The mean age of respondents was 47.3 years. 46.2 % were classified staff; 51.4% were administrative and professionals. 2.3% chose not to report this information. 91.8% had a permanent contract while 6.1% had a temporary contract. 2.1 % did not report this information. 91.6% were part-time employees, while 6.2% were full-time. 2.2% did not report this information. Finally, 88.8% of respondents had received at least some college, while 9.8 % had a high school diploma or less. 1.4% did not report their education degree.

Due to major academic budget cuts resulting from the great recession in the U.S., this university lost nearly half of its total state-supported funding and considerably decreased its facilities on travel, hiring, pay and a multitude of other costs during the time of data gathering.



These changes led to the loss of several hundred faculty and staff employee positions within the system. As such, this university provided a changing organizational environment to test our hypotheses.

Both staff and administrative/professionals employees were asked to participate in this online survey. Multiple requests were emailed to respondents in order to invite them to complete the survey. In doing so, participants were required to first log in via their university account ID to verify their status, second, they were redirected to an alternative website containing the survey itself. This procedure was performed to preserve the anonymity of participant responses as well as to assure that only eligible individuals could participate.

Measures

The collected data efforts within each of these locations were part of a larger cross-national research project. Below we briefly introduce the research tools:

Job insecurity. Nine items from the Job Security Satisfaction Scale (JSS; Probst, 2003) were used to measure affective job insecurity. Respondents indicated on a three-point scale (yes, don't know, no) the extent to which each adjective or phrase described affective reactions to their perceived level of job security (i.e. 'upsetting how little job security I have', 'nerve-wracking', 'looks optimistic'). Responses were scored such that higher scores reflect more JI using a scoring system recommended by Hanisch (1992), Item responses were coded as follows: agreement with negatively worded items (i.e. 'never-wracking') was scored "3"; agreement with positively worded items (i.e. 'looks optimistic') was scored "0"; and 'don't know' responses were scored "2". This was based on prior analyses suggesting that endorsement of the 'don't know' anchor is psychometrically closer to a negative response than a positive one (Hanisch, 1992). The Cronbach's alpha reliability of the scale was .89.

Psychological contract breach. This construct was measured using two items of the scale developed by Robinson and Morrison (2000). The items are "Overall, my employer has fulfilled its commitments to me" and "In general, my organization has lived up to its promises". Respondents were asked to rate the items of this measurement on a scale from 1 (totally disagree) to 5 (totally agree). Responses were scored such that higher numbers reflect more PCB. The Cronbach's alpha reliability of the scale was .90.



Boundaryless career orientation. BCO was measured by the 5-item organizational mobility subscale of the Briscoe, Hall and DeMuth (2006) and using a 7-point Likert scale. One of the sample items is “*In my ideal career, I would work for only one organization*” which coded such that higher numbers reflect a greater preference for organizational mobility. The Cronbach’s alpha reliability of the scale was .84.

Life satisfaction. We used the satisfaction with life scale (SWLS) developed by Diener, Emmons, Larsen and Griffin (1985). This scale has 5 items which examine the life satisfaction of individuals using a 7-point Likert scale (from *strongly agree* to *strongly disagree*). Scores consist of a raw score from 5 to 35, divided by 5. Higher scores represent higher life satisfaction. An item example is “*In most ways, my life is close to my ideal*”. The Cronbach’s alpha reliability of the scale was .88.

Job burnout. The Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach, Jackson & Leiter, 1996) was used to measure burnout. The MBI-GS has three sub-scales: Exhaustion (five items; e.g. “*I feel used up at the end of the workday*”), Cynicism (five items, e.g. “*I have become less enthusiastic about my work*”) and Professional Efficacy (six items, e.g. “*In my opinion, I am good at my job*”). All items are scored on a 7-point frequency rating scale ranging from “0” (never) to “6” (daily). High scores on exhaustion and cynicism, and low scores on professional efficacy are indicative of burnout. According to table 1, only 10 items were used to measure job burnout. The Cronbach’s alpha reliability of these items was .83.

Job turnover. The 2 item scale developed by Hanisch and Hulin (1991) was used to measure turnover intention. Sample items include “*How often do you think about quitting your job?*” and “*How likely is it that you will quit your job in the next several months?*” Respondents were asked to rate the items of this measurement on a scale from 1 (*totally disagree*) to 5 (*totally agree*). Higher scores represent higher turnover intention. The scale’s Cronbach’s alpha was .70.

Results

Table 1 presents the descriptive statistics for each of the study’s measures and their inter-correlations in the U.S. sample. The results are consistent with prior studies (e.g., Vander



Elst et al., 2016) showing that JI is significantly linked to all examined research variables as expected. These results provide initial support for hypotheses of 1a, 1b, and 1c.

Table 1. Correlations between the variables in the U.S. ($N = 1071$)

Variable	Items	M	SD	1	2	3	4	5	6
1 Job insecurity	9	1.29	.94	-	.337**	-.092**	-.248**	.320**	.245**
2 Psychological contract breach	2	4.40	1.49		-	.106**	-.261**	.330**	.343**
3 Boundaryless career orientation	5	2.84	1.00			-	-.100**	.065**	.314**
4 Life satisfaction	5	4.65	1.25				-	-.308**	-.243**
5 Job burnout	10	3.63	1.28					-	.479**
6 Job turnover intentions	2	2.10	.09						-

* $p < .05$, ** $p < .01$

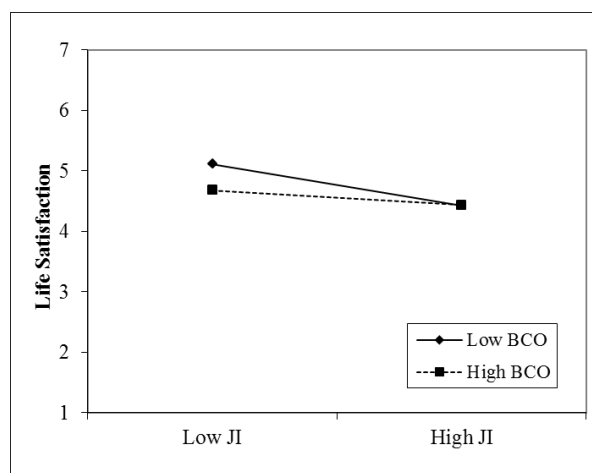
In order to more rigorously test our hypotheses, a regression model was constructed using the Process program developed by Hayes (2012). Specifically, JI was modeled as a continuous independent variable. In the next step, PCB was set as the mediator between JI and both strains and psychological coping reactions. Finally, we used BCO as a proposed moderator between JI and the outcomes of interest and as a proposed moderator of the mediation path between PCB and outcomes. The result of the mediation test is displayed in Table 2. As can be seen, PCB mediated the relationship between JI and all outcomes. Overall, evidence was therefore found for hypotheses H2a, H2b, and H2c. This more rigorous analysis also supports H1a, H1b, and H1c.

**Table 2.** Results of the single mediator and single moderator analyses in the U.S. ($N= 1071$)

Effect	United States			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Job insecurity to PCB	.34	.02	11.47	.0000
	$R^2=.11$; $F(1, 1003) = 131.69$, $p < .0000$			
PCB to life satisfaction	-.25	.04	-6.19	.0000
Direct effect of job insecurity on life satisfaction	-.23	.04	-5.81	.0000
Indirect effect of job insecurity on life satisfaction through mediator	-.08	.02	-5.67	.0000
PCB \times boundaryless orientation on life satisfaction	.01	.04	.47	ns
Job insecurity \times boundaryless orientation on life satisfaction	.11	.04	2.92	.003
	$R^2=.11$; $F(5, 995) = 26.07$, $p < .0000$			
PCB to job burnout	.29	.04	7.24	.0000
Direct effect of job insecurity on burnout	.32	.03	8.09	.0000
Indirect effect of job insecurity on burnout through mediator	.09	.01	8.04	.0000
PCB \times boundaryless orientation on burnout	.05	.03	1.66	ns
Job insecurity \times boundaryless orientation on burnout	-.03	.03	-.91	ns
	$R^2=.16$; $F(5, 999) = 38.44$, $p < .0000$			
PCB to turnover intention	.22	.02	7.82	.0000
Direct effect of job insecurity on turnover	.18	.02	6.53	.0000
Indirect effect of job insecurity on turnover through mediator	.07	.01	6.55	.0000
PCB \times boundaryless orientation on turnover	.05	.02	1.99	.0462
Job insecurity \times boundaryless orientation on turnover	.03	.02	.74	ns
	$R^2=.23$; $F(5, 1001) = 60.10$, $p < .0000$			

* $p < .05$, ** $p < .01$

As Table 2 shows, in the relationship between JI and outcomes, BCO buffered the relationship between JI and life satisfaction ($\beta = .11$, $p = .00$) but was not found to moderate the relationship between JI and job burnout or turnover intentions. Thus, evidence was only found for the hypothesis H3a, whereas hypotheses H3b and H3c were not confirmed (see Figure 2). Indeed, Figure 2 shows the expected buffering role of BCO.

**Figure 2.** Interaction Job insecurity \times BCO on life satisfaction in the U.S.



Considering Table 2, BCO as proposed moderator amplified the relationship between PCB and job turnover ($\beta = .05, p = 0.04$), but was not found to moderate the relationship between PCB and life satisfaction or job burnout. Therefore, evidence was only found for H4c and hypotheses H4a and H4b did not gain support (see Figure 3).

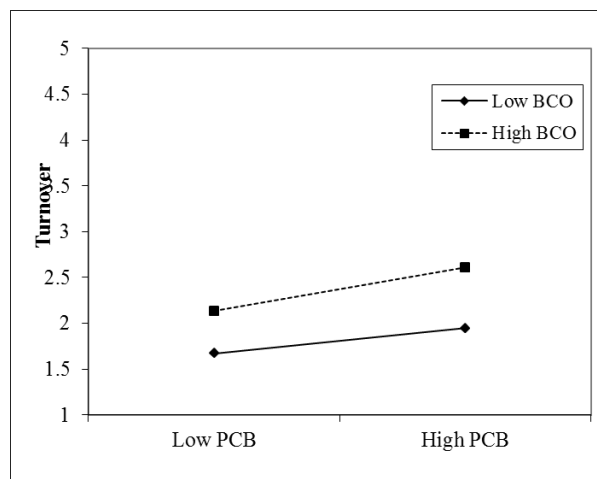


Figure 3. Interaction PCB \times BCO on turnover intentions in the U.S.

Study 2: Belgium

Method

Participants and procedure

Study 2 was carried out to test the reproduction and generalization of the findings from study 1 in a different cultural setting.

Surveys were administered to 348 employees from 14 different small and medium-sized public and private companies/organizations in (the Flemish part of) Belgium. The participation rate of the staff (white collar workers) and professionals (blue collar workers) was approximately 67%. Of those who completed the survey, 71.84 % were female and 28.16% male. The mean age of the respondents was 38.82 years. 67.2 % were staff; 32.8% were administrative and professionals. 90.8% of respondents had a permanent contract and 9.2% had a temporary contract. 66.4% were full-time employees, while 33.6% were part-time. Finally, 85.35% of the respondents had received at least some college while 14.65 % had a high school diploma. The sectors were transportation, human resources, financial, governments, health care, military, and family assistant services. The research staff provided



participants with online access to the questionnaire and explained them the anonymous nature of the data collection with online instructions. Furthermore, participants were requested to participate in the online surveys in the absence of any organizational official; Employees either completed the survey during working hours or had the option to complete it at home.

Measures

The survey contained all the measures previously described in Study 1. The survey scales were translated into Flemish from the English version and items were checked by the research teams of the two countries separately. The Cronbach's alpha of job insecurity, PCB, BCO, life satisfaction and job burnout were .87, .90, .82, .83, and .86 respectively. The only difference was the scale of turnover intention used in Belgium. This construct was measured by the two items of Questionnaire on the Experience and Evaluation of Work (QEEW) developed by Van Veldhoven (1994). An item example is "Next year, I plan to look for a job outside this organization". Respondents were asked to rate the items on a scale from 1 (*totally disagree*) to 5 (*totally agree*). Higher scores represent higher turnover intention. The scale's Cronbach's alpha was .75.

Results

Table 3 presents the descriptive statistics for each of the study's measures and their inter-correlations in the Belgian sample. These results are consistent with prior studies (e.g., Vander Elst et al., 2016) that showed job insecurity to be significantly linked to all examined variables (see Table 3). This again provides initial support for the hypotheses 1a, 1b, and 1c.

Table 3. Correlations between the variables in the Belgium ($N = 348$)

Variable	Items	M	SD	1	2	3	4	5	6
1 Job insecurity	9	2.36	.712	-	.203 **	.029	-.307 **	.148 **	.200 **
2 Psychological contract breach	2	3.47	.90		-	.220 **	-.351 **	.283 **	.392 **
3 Boundaryless career orientation	5	2.72	.777			-	-.158 **	.081	.448 **
4 Life satisfaction	5	4.86	1.01				-	-.257 **	-.296 **
5 Job burnout	10	2.87	1.02					-	.381 **
6 Job turnover	2	1.66	.80						-

* $p < .05$, ** $p < .01$



In order to once again test our mediation and moderation hypotheses a regression model similar to the analysis conducted in the U.S was constructed (Figure 1). Due to missing data on one or more of these variables, the effective sample size was reduced to 348. The results of the mediator tests are displayed in Table 4. As the Table shows, PCB mediated the relationship between JI and all outcomes. Overall, evidence was therefore found for hypotheses 2a, 2b, and 2c and for hypotheses 1a, 1b, and 1c too.

Table 4. Results of the single mediator and single moderator analyses in Belgium ($N = 348$)

Effect	Belgium			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Job insecurity to PCB	.19	.05	3.59	.0004
	$R^2 = .04; F(1, 346) = 12.90, p < .0001$			
PCB to life satisfaction	-.28	.05	-5.42	.0000
Direct effect of job insecurity on life satisfaction	-.23	.05	-4.45	.0000
Indirect effect of job insecurity on life satisfaction through mediator	-.05	.05	-4.75	.0000
PCB \times boundaryless orientation on life satisfaction	-.00	.06	-.00	ns
Job insecurity \times boundaryless orientation on life satisfaction	.14	.06	2.43	.0147
	$R^2 = .21; F(5, 342) = 18.17, p < .0000$			
PCB to job burnout	.27	.05	4.94	.0000
Direct effect of job insecurity on burnout	.15	.06	2.73	.0065
Indirect effect of job insecurity on burnout through mediator	.05	.05	2.57	.0106
PCB \times boundaryless orientation on burnout	.01	.06	.27	ns
Job insecurity \times boundaryless orientation on burnout	.14	.06	2.38	.0176
	$R^2 = .11; F(5, 342) = 8.35, p < .0000$			
PCB to turnover intention	.22	.04	5.88	.0000
Direct effect of job insecurity on turnover	.11	.04	2.96	.0032
Indirect effect of job insecurity on turnover through mediator	-.04	.03	3.23	.0013
PCB \times boundaryless orientation on turnover	.07	.04	1.75	ns
Job insecurity \times boundaryless orientation on turnover	-.10	.04	-2.47	.0138
	$R^2 = .33; F(5, 342) = 34.42, p < .0000$			

* $p < .05$, ** $p < .01$

As Table 4 shows, in the relationship between JI and outcomes, BCO buffered the relationship between JI and life satisfaction ($\beta = .14, p = .01$). This buffer effect is displayed in Figure 4. However, BCO unexpectedly buffered the association between JI and job turnover ($\beta = .10, p = .01$; see Figure 5) and amplified the relationship between JI and job burnout ($\beta = .14, p = .01$; see Figure 6). Therefore, evidence was only found for hypothesis 3a, and our results did not support hypotheses 3b and 3c.

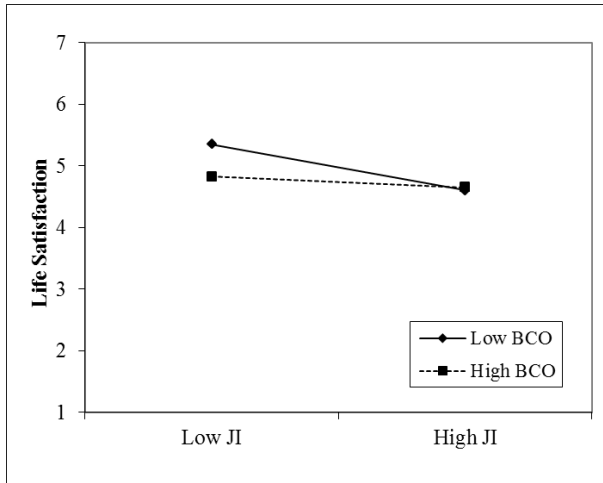


Figure 4. Interaction Job insecurity × BCO on life satisfaction in Belgium

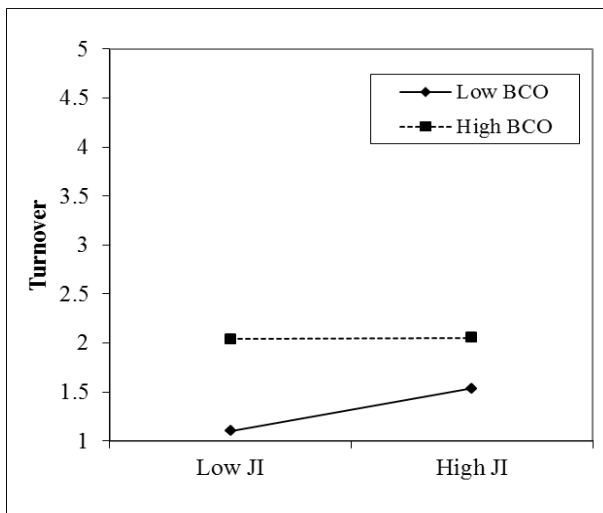


Figure 5. Interaction job insecurity × BCO on turnover intentions in Belgium

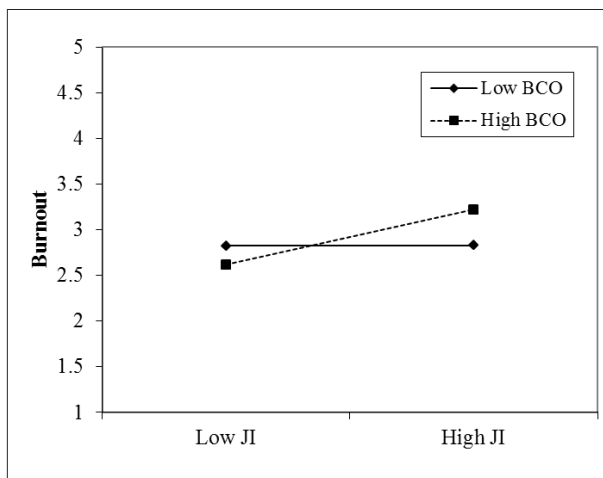


Figure 6. Interaction Job insecurity × BCO on job burnout in Belgium



No evidence was found for the proposed moderated mediation effect of BCO and the relationship between PCB and outcomes; thus, hypotheses H4a, H4b, and H4c were not supported.

Discussion

In the present study, we theoretically integrated and examined two different mediating and moderating paths through which JI is linked to work-related strains (i.e., job burnout), general strains (i.e. life satisfaction), and psychological coping reactions (i.e., turnover intentions). Even though samples were taken from two different geographical places, JI was associated with the same outcome variables in both countries. Therefore, the ‘outcomes’ of JI are very similar in the U.S. and Belgium. This increases the generalizability of the idea that JI is a work stressor that negatively impacts workers and organizations. In the mediation path, we tested the mediating role of PCB in the JI-outcomes link. PCB consistently mediated the direct impact of JI on strains and psychological coping reactions in the two studies. The mediating effect of PCB in the link between JI and strains (life satisfaction and job burnout) is based on social exchange theory, suggesting that the intense negative emotions resulting from a perceived PCB lead to strains among employees (Conway & Briner, 2005; Schwarzer, 2001). Also, the mediating impact of PCB in the association between JI and psychological coping reactions (turnover intention) can be interpreted by social exchange theory, which predicts that employees who perceive JI may feel an unfair exchange in their psychological contract. As a consequence, they may take distance from the job and the organization as an alternative way to psychologically withdraw from working with an unfair psychological contract (Dekker & Schaufeli, 1995; Conway & Briner, 2005; Vander Elst et al., 2016). Replication of the results in Belgium contributes to the finding that PCB is an important mediator (hence ‘explanation’) of the associations between JI and its outcomes. When employees feel that their psychological contract is breached, they react negatively and want to leave the organization.

The findings of the second path regarding the moderating role of BCO in the two countries can be divided into two sub-paths: one in which BCO as a personal resource may moderate the direct impact of JI on outcomes, and a second one where BCO as a moderator



may buffer or amplify the indirect impact of JI (via PCB) on outcomes. In the first moderating sub-path, BCO buffered the JI impact on general strains (life satisfaction) in both countries in a similar way, but it did not buffer the association between JI and work-related strains (job burnout) in the U.S. or Belgium. Contrary to our expectation, BCO even amplified (instead of buffered) the impact of JI on work-related strains in the Belgian sample. The results showed that Belgian employees high on BCO were more likely to experience an increase in job burnout at work, when confronted with JI. Perhaps the increase in burnout is a chronic stress response due to unsuccessful attempts to cope with the stressor (Tilakdharee, Ramidial & Parumasur, 2010). Culturally, it seems that Belgian employees prefer to stay close to the place where they were born or their families reside (Lodewijckx & Deboosere, 2011). In other words, due to family ties, changing an insecure career might be more stressful than accepting some job burnout at their work. While BCO did not amplify the association between JI and coping reactions (turnover intentions) in the U.S. sample, it buffered this association in the Belgian sample. The perception of JI thus leads Belgian employees who score high on BCO to show less turnover intentions. One explanation for this finding could be that Belgium is among countries with lowest actual job mobility within Europe (Andersen, Haahr, Hansen & Holm-Pedersen, 2008). In this regard, evidences show that Liberal regimes (the UK and Ireland) experience higher occupational mobility but also maintain fairly high levels of job security. In Southern regimes (Greece, Italy, Spain and Portugal) flexibility is obtained at the expenses of job security. Corporatist regimes (Germany, France, and Belgium) are marked by low levels of mobility without being able to maintain high levels of job security. Social-democratic regimes (Denmark, the Netherlands, and Finland) have low mobility but keep job security at a high level (Recchi, Baldoni, Francavilla, & Mencarini, 2006). The same evidences display that the occupational mobility rate in all European countries (including Belgium) is considerably less than U.S. (0.1% vs. 3.1%). Thus, low turnover intention or mobility might be due to a cultural or regional habit. A second explanation is related to the overall strictness of employment protection. A low level of this gives employers the power to fire, hire, or relocate workers according to their needs. The evidence shows that the strictness of employment protection is 2.2% in Belgium and 0.2% in U.S. (U.S. Census Bureau, 2010). This considerable difference in the strictness of employment protection may be a reason to



Belgian employees feel more protected by law than U.S employees. A third explanation is that high job mobility rates are connected with considerable transaction costs and sunk costs at the company level in the form of wasted investment in job-specific training. This may discourage Belgian companies to offer job mobility programs to employees or may discourage Belgian employees to spend many times in new training programs that might be time and energy consuming (Andersen, Haahr, Hansen & Holm-Pedersen, 2008).

In the second moderating sub-path, BCO only amplified the association between PCB and coping reactions (turnover intention) in the U.S sample, as hypothesized. According to COR theory, when employees perceive a breach (i.e., lack of reciprocity) of their psychological contract, they may look for secure alternative job opportunities in other organizations. Employees high on BCO in the U.S. may react more severely to PCB compared with Belgians employees. This might be due to more external employability rate in U.S. (5.2%) compared with Belgium (8.6 %) (The World Factbook reported by Central Intelligence Library of U.S., 2015). The higher rate of external employability in the U.S. may encourage employees with high BCO to leave an insecure psychological contract and look for a secure one. Other moderation effects were not statistically significant. This shows that BCO plays a more prominent role in the direct association between JI and outcomes, as discussed above.

The comparison of moderating effects of BCO in the relationship between JI and outcomes showed that although BCO is a buffer of the relationship between JI and general strains (i.e., life satisfaction) in the U.S. and Belgium, BCO did not moderate the indirect association of JI-outcomes (through PCB) in both countries. Perhaps this is because some of the outcomes such as life satisfaction seem to be positive and some others such as job burnout seem to be negative. When the positive outcomes are negatively influenced by JI, employees are more likely to feel their personal resources are threatened and may react more severely to the stressor (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). One explanation could be that employees differentiate between stressors that only threaten their work and those that may spillover from work to the family, thus also affecting their life satisfaction. More precisely, in the path of JI-PCB-outcomes, BCO only strengthened the link of PCB with turnover intention in the U.S. This can be understood by considering appraisal theory: Job insecure U.S. employees with a high BCO are more likely to withdraw from an uncontrollable and



threatened work situation compared to Belgian employees. They may unintentionally want to withdraw from a stressful situation by mobility across different jobs or organizations. Indeed, the withdrawal reaction may give the U.S. employees a chance to find a favored job in another organization. This suggests that BCO can be important in helping employees to leave a stressful and insecure work condition instead of experiencing negative outcomes. In contrast, the lower level of tendency to occupational mobility may encourage Belgian employees to hold their current job and tolerate some insecurity around of their job.

Theoretical implications

From a theoretical standpoint, we can highlight the contribution of this study to the JI literature through the mechanisms that influence the link between job insecurity and its outcomes in multiple ways. First, this research underpins the similarity in outcomes of JI in two different countries. Second, this study replicates previous studies in which the mediation effect of PCB was supported (e.g., De Cuyper & De Witte, 2007; Vander Elst et al., 2011; Vander Elst et al., 2016). Third, this study introduced and tested BCO as a new personal resource moderator of the link between JI and its outcomes. We also compared the moderating role of BCO on direct and indirect impacts of JI-outcomes relationship. Fourth, this study adds a new outcome (i.e., life satisfaction) to the existing studies, which has not been linked to PCB before. Fifth, we generalized a new categorization of JI outcomes in terms of general/work-related strains and coping reactions across two different countries. This categorization reflects the ‘reason’ or ‘function’ of a reaction, and allows for the formulation of specific theoretical predictions regarding the possible differential effects of JI on both types of outcomes (Vander Elst et al., 2016). Sixth, the findings allow us to compare the strength of the mediating effect of PCB on JI-outcomes association in the two contexts.

Practical implications

Our findings have important implications for employees and organizations. First, our results replicated the direct impact of JI on work-related strains, general strains and coping reactions across two different cultural contexts (U.S. and Belgium). Such consistent replication across cultural contexts and measures lends additional weight to the validity of our



findings. This is practically important as it allows us to understand that employees in both countries react similarly to perceived JI. Moreover, it may help to educate employees how they perceive JI and how it can affect their psychological reactions. Given these findings, we can help them to have a realistic understanding of the impacts of JI.

The findings also have implications for employers, as they need to realize the importance of the psychological contract they establish with their employees. They may realize that the lack of job security might be perceived as a breach of the psychological contract. As such, they may pay more attention to the fulfillment of promises and commitments in the psychological contract with their employees. Given the explanations regarding the link between JI, strains, and coping reactions, organizational practitioners may use this knowledge in precluding JI to result in negative outcomes for both employees and organizations, especially in times of organizational change when the perception of JI seems likely. In this respect, practitioners should implement interventions directed at the underlying mechanisms of the JI-outcomes relationship. For example, they may consider implementing actions that reduce the appraisal of a breach of the psychological contract. This could be accomplished by applying a clear, realistic and pragmatic communication program with the participation of employees in the organization (Vander Elst, Baillien, De Cuyper, & De Witte, 2010; Vander Elst et al., 2016) or by setting a reward/punishment system for employers to hamper the occurrence of any breach in the psychological contract or amend it promptly (Probst, Barbaranelli, & Petitta, 2013). Such actions may promote employees' understanding of JI, and may reduce severe reactions in terms of work-related strains, general strains or negative coping reactions in the workplace.

Limitations

Despite the contributions of our study, there are several limitations that should be noted. First, a cross-sectional research design was used. Since cause and outcomes were measured at the same time it might be difficult to determine the direction of the association. In other words, it is not known if the cause preceded the outcome and is, therefore, a potential cause of the outcome. Our research design precludes us from making strong causal inferences about the direct or indirect (via PCB) relationships of JI and its outcomes (Rosposa, & Stone-



Romero, 2008). However, where inferred, the direction of our model is in line with theory. A number of previous studies have also acknowledged casual associations in the direction predetermined in this study (Huang, Niu, Lee, & Ashford, 2012; Vander Elst et.al, 2016; De Witte et al., 2016).

Second, because we used a self-reported questionnaire, common method bias might be a concern (Podsakoff et al., 2003). To limit common method bias, future studies should vary their design and could benefit from using trained external evaluators or longitudinal designs or a combination of both to measure strain and coping reactions. Nevertheless, given that psychological contract breach is a highly subjective construct by nature, it would be hard to use other methods than self-reports. Besides, we tried to reduce common bias by highlighting the voluntary element of the survey.

Third, additional remarks can be made regarding the samples of this study. Although our samples were heterogeneous, they were not representative for the U.S. and Belgium working population. The samples, for example, consisted of large groups of well-educated employees with a permanent contract type. However, the type of contract might be a potential reason to have influenced the way that employees receive and appraise JI and PCB. Moreover, we used a non-random 2-country sample that might limit the generalizability of the findings from our samples to other samples. Notwithstanding, we cannot attribute all differences in findings to the countries differences. As the two samples were heterogeneous and different, the features of samples may also justify some of the differences. We recommend future studies to apply a random sampling method to replicate our findings.

Conclusion

Overall, this study demonstrates that PCB and BCO as mediating and moderating paths can significantly affect the association between JI and its outcomes. PCB explained a considerable proportion of the relationship between JI and a wide range of outcomes. Moreover, PCB demonstrated that its effect is not context-specific; since employees of both countries studied (U.S. and Belgium) reacted similarly to the perceived breach of their psychological contract. In contrast, the effect of BCO on the JI-outcomes relationships was not straightforward in the countries studied. It seems that BCO has a more meaningful role on



the direct association between JI and outcomes rather than the associations mediated by PCB. It can be better seen when the outcome is a positive variable (i.e., life satisfaction). As BCO similarly moderated the association between JI and positive outcomes in both studies, this leads us to conclude that BCO can act as a personal resource to buffer the relationship between JI and outcomes when the outcome is positive. The impact of BCO on the mediation path implies that BCO can also moderate the association between JI and outcomes but when the outcome is negative (i.e., job turnover). Although these evidences are not enough to strongly conclude that BCO can act as a personal resource to amplify the link between JI and negative outcomes but we can mention that BCO as a personal resource may help employees to leave a stressful workplace and find an alternative opportunity. This may not be a favorable outcome for organizations but it might be a helpful way to employees feels more secure and less stressed. Besides, BCO played a slightly different moderating role in Belgium compared to the U.S., which indicates that BCO acts differently in different contexts. We suggested that potential factors such as family and emotional ties, different occupational mobility rate, strictness of employment protection, and different employability rate in Belgium and U.S. may have caused the differences in the findings. In all, although there might be the imagination that a high BCO would potentially be a good psychological characteristic in today's mobile workforce, our findings oppositely indicate that individuals with a high BCO overall have lower life satisfaction, higher burnout and higher turnover intentions.



References

- Andersen, T., Haahr, J.H., Hansen, M.E., & Holm-Pedersen, M. (2008). *Job Mobility in the European Union: Optimizing its Social and Economic Benefits* (Final). Retrieved from European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities website: <http://www.dti.dk/job-mobility-in-europe/25567>
- Arthur, M. B. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior, 15*(4), 295-306. doi:10.1002/job.4030150402
- Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career: A new employment principle for a new organizational era*. New York: Oxford University Press.
- Ballou, N. S. (2013). *The Effects of Psychological Contract Breach on Job Outcomes*. (Master's Thesis). San Jose State University. Retrieved from http://scholarworks.sjsu.edu/etd_theses/4327
- Barsky, A., Kaplan, S. A., & Beal, D. J. (2011). Just feelings? The role of affect in the formation of organizational fairness judgments. *Journal of Management, 37*(1): 248–279.
- Briscoe, J. P., Hall, D. T., & DeMuth, R. L. F. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior, 69* (1): 30–47.
- Briscoe, D., Schuler, R., & Tarique, I. (2012). *International human resource management: Policies and practices for multinational enterprises* (4th ed.). New York City, NY: Routledge.
- Burgard, S. A., Brand, J. E., & House, J. S. (2009). Perceived job insecurity and worker health in the United States. *Social Science & Medicine, 69*(5), 777-785. doi:10.1016/j.socscimed.2009.06.029
- Burgard, S. A., Kalousova, L., & Seefeldt, K. S. (2012). Perceived Job Insecurity and Health. *Journal of Occupational and Environmental Medicine, 54*(9), 1101-1106. doi:10.1097/jom.0b013e3182677dad
- Cappelli, P. (1999): "Career jobs are dead," *California Management Review, 42*: 146–167.
- Cantisano, G. T., Domínguez, J. F., & Depolo, M. (2008). Perceived Sexual Harassment at Work: Meta-Analysis and Structural Model of Antecedents and Consequences. *Span. j. psychol, 11*(01), 207-218. doi:10.1017/s113874160000425x



- Chambel, M. J., & Oliveira-Cruz, F. (2010). Breach of psychological contract and the development of burnout and engagement: A longitudinal study among soldiers on a peacekeeping mission. *Military Psychology*, 22(2), 110-127. doi:10.1080/08995601003638934
- Cheng, G. H., & Chan, D. K. (2008). Who Suffers More from Job Insecurity? A Meta-Analytic Review. *Applied Psychology*, 57(2), 272-303. doi:10.1111/j.1464-0597.2007.00312.x
- Chrobot-Mason, D. L. (2003). Keeping the promise: psychological contract violations for minority employees. *Journal of Managerial Psychology*, 18: 22-45.
- Conway, N., & Briner, R. B. (2005). *Understanding psychological contracts at work: A critical evaluation of theory and research*. NY: Oxford University Press.
- Coyle-Shapiro, J. A. M. (2002). A psychological contract perspective on organizational citizenship behavior. *Journal of Organizational Behavior*, 23 (8): 927-946.
- Coyle-Shapiro, J. A., & Kessler, I. (2002). Exploring reciprocity through the lens of the psychological contract: Employee and employer perspectives. *European Journal of Work and Organizational Psychology*, 11(1), 69-86. doi:10.1080/13594320143000852
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281-302. doi:10.1037/h0040957
- De Cuyper, N., & De Witte, H. (2006). The impact of job insecurity and contract type on attitudes, wellbeing and behavioral reports: A psychological contract perspective. *Journal of Occupational and Organizational Psychology*, 79: 395-409.
- De Cuyper, N., & De Witte, H. (2007). Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behavior. *Work & Stress*, 21 (1): 65-84.
- 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 and Organization*, 40(1), 57-73. doi:10.2753/imo0020-8825400104



- Dekker, S. W. A., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 30(1): 57-63.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512. doi:10.1037/0021-9010.86.3.499
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, 31(4): 1-6.
- De Witte, H., De Cuyper, N., Vander Elst, T., Vanbelle, E., & Niesen, W. (2012). Job Insecurity: Review of the Literature and a Summary of Recent Studies from Belgium. *Romanian Journal of Applied Psychology*, 14(1), 11-17.
- De Witte, H., Pienaar, J., & De Cuyper, N. (2016). Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being. Is there causal evidence? *Australian Psychologist*, 51(1), 18-31.
- De Witte, H., Vander Elst, T., & De Cuyper, N. (2015). Job Insecurity, Health and Well-Being. In J. Vuori, R. Blonk, & R. H. Price (Eds.), *Sustainable Working Lives: Managing Work Transitions and Health Throughout the Life Course*. New York: Springer, pp. 109-128.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49: 71-75.
- Dudley, N. M., & Cortina, J. M. (2008). Knowledge and skills that facilitate the personal support dimension of citizenship. *Journal of Applied Psychology*, 93: 1249-1270.
- Dulac, T., Coyle-Shapiro, J., Henderson, D. J. & Wayne, S. J. (2008). Not all responses to breach are the same: The interconnection of social exchange and psychological contract processes in organizations. *Academy of Management Journal*, 51: 1079-1098.
- Fernandez, V., & Enache, M. (2008). Exploring the relationship between protean and boundaryless career attitudes and affective commitment through the lens of a fuzzy-set QCA methodology. *Intangible Capital*, 4(1), 31-66



- Geurts, S. A., Schaufeli, W. B., & Rutte, C. G. (1999). Absenteeism, turnover intention and inequity in the employment relationship. *Work & Stress, 13*(3), 253-267. doi:10.1080/026783799296057
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*: 161-78.
- Gubler, M., Arnold, J., & Coombs, C. (2014). Organizational boundaries and beyond. *Career Dev Int, 19*(6), 641-667. doi:10.1108/cdi-11-2013-0143
- Gunz H, Evans M, & Jalland M. (2000). *Career boundaries in a boundaryless world*. In: Peiperl M, Arthur MB, Goffee R, Morris T (eds) *Career Frontiers: New Conceptions of Working Lives*. Oxford: Oxford University Press, pp. 24-53.
- Hamad, R., Modrek, S., & Cullen, M. R. (2015). The Effects of Job Insecurity on Health Care Utilization: Findings from a Panel of U.S. Workers. *Health Serv Res, n/a-n/a*. doi:10.1111/1475-6773.12393
- Hanisch, K. (1992). The Job Descriptive Index revisited: Questions about the question mark. *Journal of Applied Psychology, 77*: 377-382.
- Hanisch, K. A. & Hulin, C. L. (1991). General attitudes and organizational withdrawal: An evaluation of a causal model. *Journal of Vocational Behavior, 39*: 110-128.
- Heaney, C. A., Israel, B. A., & House, J. S. (1994). Chronic job insecurity among automobile workers: Effects on job satisfaction and health. *Social Science & Medicine, 38*(10), 1431-1437. doi:10.1016/0277-9536(94)90281-x
- 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., & Shirom, A. (1993). Stress and burnout in work organizations. In R.T. Golembiewski (Ed.) *Handbook of organization behavior* (pp. 41-61). New York: Dekker.
- Homans, G. (1961). *Social Behavior: Its Elementary Forms*. New York: Harcourt, Brace & World.
- Huang, G., Niu, X., Lee, C., & Ashford, S. J. (2012). Differentiating cognitive and affective job insecurity: Antecedents and outcomes. *Journal of Organizational Behavior, 33*(6), 752-769. doi:10.1002/job.1815



- Jamil, A., Raja, U., & Darr, W. (2013). Psychological Contract Types as Moderator in the Breach-Violation and Violation-Burnout Relationships. *The Journal of Psychology*, 147(5), 491-515. doi:10.1080/00223980.2012.717552
- Jiang, L., Probst, T. M., & Benson, W. L. (2015). Organizational context and employee reactions to psychological contract breach: A multilevel test of competing theories. *Economic and Industrial Democracy*. doi:10.1177/0143831x15579288
- Lazarus, R. S., & Folkman, S. (1984). *Stress appraisal and coping*. NY: Springer.
- Lodewijckx, E., Deboosere, P. (2011). Households and families: Stability and fast development go hand in hand. *Generations & Gender Programme Belgium GGP Belgium Paper Series. No.6. 1-27*.
- Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). Maslach burnout inventory manual (3rd edn.). Palo Alto, CA: Consulting Psychologists Press.
- McLean Parks, J., Kidder, D. L., & Gallagher, D. G. (1998). Fitting square pegs into round holes: mapping the domain of contingent work arrangements onto the psychological contract. *Journal of Organizational Behavior*, 19(S1), 697-730. doi:10.1002/(sici)1099-1379(1998)19:1+<697::aid-job974>3.0.co;2-i
- Mirvis, P.H. & Hall, D.T. (1996). ``Career development for the older worker'', in Hall, D.T. (Ed.), *The Career is Dead: Long Live the Career*, Jossey-Bass, San Francisco, CA, pp. 278-96.
- Nauta, A., Vianen, A., Heijden, B., Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: The impact of employability culture, career satisfaction, and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology*, 82(2), 233-251. doi:10.1348/096317908x320147
- Podsakoff, P. M., MacKenzie, S. B., Podsakoff, N. P., & Lee, J. Y. (2003). The measure of management and its implications for leadership research. *The Leadership Quarterly*, 14(6), 615-656. doi:10.1016/j.leaqua.2003.08.002
- Piccoli, B., & De Witte, H. (2015). Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity. *Work & Stress*, 29(3), 246-263. doi:10.1080/02678373.2015.1075624



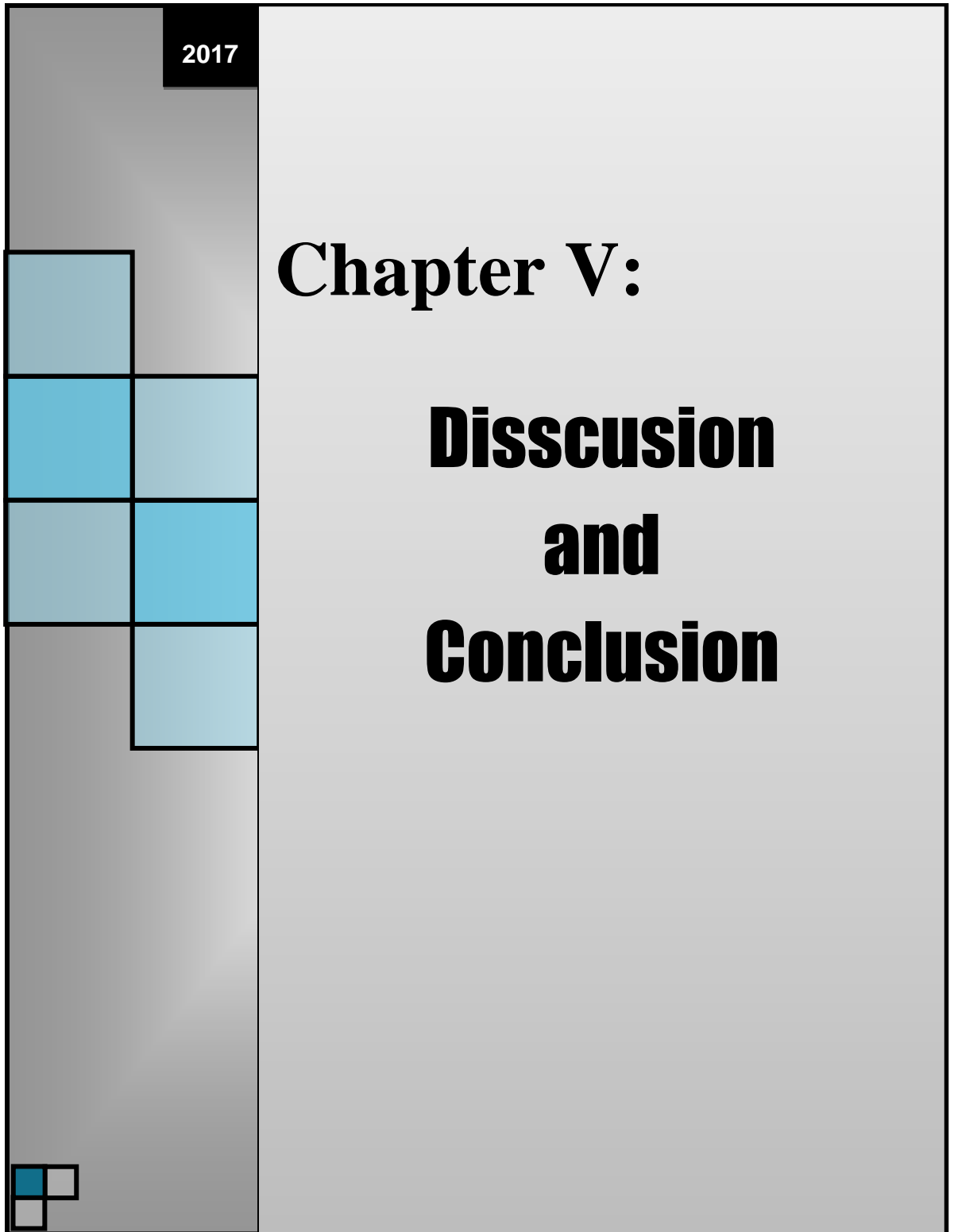
- Probst, T.M. (2003). 'Development and validation of the Job Security Index and the Job Security Satisfaction scale: A classical test theory and IRT approach', *Journal of Occupational and Organizational Psychology*, 76: 451-467.
- Probst, T. M. (2005). Economic stressors. In J. Barling, K. Kelloway, & M. Frone (Eds.) *Handbook of work stress*, (pp. 267-297). Thousand Oaks, CA: Sage Publication, Inc.
- Probst, T. M., Barbaranelli, C., & Petitta, L. (2013). The relationship between job insecurity and accident underreporting: A test in two countries. *Work & Stress*, 27: 383-402.
- Recchi, E., Baldoni, E., Francavilla, F., Mencarini, L. (2006). *Geographical and Job Mobility in the EU* (final). Retrieved from DG Employment, Social Affairs and Equal Opportunities website: <http://westminsterresearch.wmin.ac.uk/8168/>
- Restubog, S. L., Bordia, P., & Tang, R. L. (2006). Effects of psychological contract breach on performance of IT employees: The mediating role of affective commitment. *Journal of Occupational and Organizational Psychology*, 79(2), 299-306. doi:10.1348/096317905x53183
- Robinson, S. L., & Morrison, E. (2000). The development of psychological contract breach and violation: a longitudinal study. *Journal of Organizational Behavior*, 21(5), 525-546. doi:10.1002/1099-1379(200008)21:5<525::aid-job40>3.0.co;2-t
- Rodwell, J., & Gulyas, A. (2015). Psychological contract breach among allied health professionals. *Journal of Health Organization and Management*, 29(3), 393-412. doi:10.1108/jhom-05-2013-0107
- Rosopa, P. J., & Stone-Romero, E. F. (2008). Problems with detecting assumed mediation using the hierarchical multiple regression strategy. *Human Resource Management Review*, 18(4), 294-310. doi:10.1016/j.hrmr.2008.07.009
- Schaufeli, W. B. (2016). Job Insecurity Research is Still Alive and Kicking Twenty Years Later: A Commentary. *Australian Psychologist*, 51(1), 32-35. doi:10.1111/ap.12201
- Schwarzer, R. (2001). Stress, resources, and proactive coping. *Applied Psychology: An International Review*, 50 (3), 400-407.
- Segers, J., Inceoglu, I., Vloeberghs, D., Bartram, D., Henderickx, E. (2008). Protean and boundaryless careers: A study on potential motivators. *Journal of Vocational Behavior*, 73: 212-230.



- Seopa, N., Wöcke, A., & Leeds, C. (2015). The impact on the psychological contract of differentiating employees into talent pools. *Career Dev Int*, 20(7), 717-732. doi:10.1108/cdi-03-2015-0033
- Shore, L. M., & Barksdale, K. (1998). Examining degree of balance and level of obligation in the employment relationship: a social exchange approach. *Journal of Organizational Behavior*, 19(S1), 731-744. doi:10.1002/(sici)1099-1379(1998)19:1+<731::aid-job969>3.0.co;2-p
- Skromme Granrose, C., & Baccili, P. A. (2006). Do psychological contracts include boundaryless or protean careers? *Career Dev Int*, 11(2), 163-182. doi:10.1108/13620430610651903
- Sullivan, S. E., & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*, 69: 19-29.
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7 (3): 242-264
- Tekleab, A. G., & Taylor, M. S. (2003). Aren't there two parties in an employment relationship? Antecedents and consequences of organization-employee agreement on contract obligations and violations. *Journal of Organizational Behavior*, 24 (5): 585-608.
- The World Factbook. (2015). Unemployment rate of world countries. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/fields/2129.html>
- Tilakdharee, N., Ramidial, S., & SB Parumasur, S.B. (2010). The relationship between job insecurity and burnout. *SAJIMS*, 3(13): 254-271.
- Turnley, W. H., & Feldman, D. C. (1998). Psychological contract violations during corporate restructuring. *Human Resource Management*, 37(1), 71-83. doi:10.1002/(sici)1099-050x(199821)37:1<71::aid-hrm7>3.0.co;2-s
- U.S. Census Bureau, (2010). Internal mobility: The United States. Retrieved from http://siteresources.worldbank.org/ECAEXT/Resources/258598-1284061150155/7383639-1323888814015/8319788-1324485944855/10_us.pdf



- Vander Elst, T., Baillien, E., De Cuyper, N., & De Witte, H. (2010). The role of organizational communication and participation in reducing job insecurity and its negative association with work-related well-being. *Economic and Industrial Democracy, Stress and Health*, 31 (2): 249-264.
- Vander Elst, T., De Cuyper, N., & De Witte, H. (2011). The role of perceived control in the relationship between job insecurity and psychosocial outcomes: Moderator or mediator? *Stress and Health*, 27(3): e215-e227.
- Vander Elst, T., De Cuyper, N., Baillien, E., Niesen, W., & De Witte, H. (2016). Perceived Control and Psychological Contract Breach as Explanations of the Relationships Between Job Insecurity, Job Strain and Coping Reactions: Towards a Theoretical Integration. *Stress & Health*, 36(2), 100-116. DOI: 10.1002/smi.2584
- Vander Elst, T., De Witte, H., & De Cuyper, N. (2014). The Job Insecurity Scale: A psychometric evaluation across five European countries. *European Journal of Work and Organizational Psychology*, 23(3): 364-380.
- Van Veldhoven, M., & Meijman, T. (1994). *De Vragenlijst Beoordeling en Beleving van het Werk*. NIA: Amsterdam.
- Volmer, J., & Spurk, D. (2010). Protean and boundaryless career attitudes: relationships with subjective and objective career success. *ZAF*, 43(3), 207-218. doi:10.1007/s12651-010-0037-3
- Volmer, J., & Spurk, D. (2011). Protean and boundaryless career attitudes: relationships with subjective and objective career success. *In: Zeitschrift für ArbeitsmarktForschung*, 43 (3): 207-218.
- Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, 84 (5): 786-794.
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83(3), 486-493. doi:10.1037/0021-9010.83.3.486.





Introduction

This chapter aims to discuss, elaborate on and summarize our findings reported in chapters of II, III, and IV of this volume in terms of implications for theory, research and practice. Chapter II includes Studies 1 and 2, chapter III includes study 3, and chapter IV includes studies 4 and 5. First, we discuss the major findings in view of our particular contributions to the domains of job insecurity-wellbeing and moderators of job insecurity. Secondly, we elaborated our findings to theory, research and practical implications for future studies. These implications will be summarized in suggestions for practitioners in the field of job insecurity to provide them with practical assistance for their work within organizations and industries. Thirdly, we will discuss the limitations of this thesis from a methodological and statistical point of view. Fourthly, we will end with a short conclusion on the various moderators of job insecurity in different countries.

A brief summary of key findings

The current dissertation focused on two major aims. The first aim was to test the link between job insecurity and well-being related outcomes in terms of psychological and behavioral outcomes. Findings from studies 1, 2, 4 and 5 in chapter II and IV consistently replicated the negative association between quantitative job insecurity and well-being related outcomes in Iran, Belgium and U.S. Moreover, the findings of the study 3 in chapter III showed that qualitative job insecurity is also negatively associated with psychological and behavioral outcomes in Iran. These findings show that job insecurity has a detrimental impact on employees in the workplaces and its impact is not context-specific. We mainly used the cognitive appraisal theory (Folkman & Lazarus, 1984) to justify these findings.

The second aim was to test the moderating role of individual-based moderators in the link between job insecurity and psychological and behavioral well-being. The individual-based moderators were divided into cognitive moderators and attitudinal moderators. Based on the literature review, we proposed cognitive appraisals, namely hindrance and challenge appraisals, as cognitive moderators and boundaryless career orientation as an attitudinal moderator with the potential to moderate the association between job insecurity and both psychological and behavioral outcomes. Consequently, in the first step, we tested the



moderating role of cognitive appraisals in the association between job insecurity and the outcomes to determine the extent to which these appraisals may amplify or buffer this association. Testing these effects in study 1 and 2, we noticed that hindrance appraisals showed more moderating power in the quantitative job insecurity-psychological outcomes association. However, this moderation effect was only found in Belgium, not in Iran. On the contrary, challenge appraisals of job insecurity did not buffer the association between quantitative job insecurity and outcomes in Iran and Belgium. Testing these effects in study 3, we noticed that hindrance appraisals moderated the qualitative job insecurity-psychological outcomes relationship in Iran but they did not moderate the qualitative job insecurity-behavioral outcomes relationship. Similarly, in studies 1 and 2, challenge appraisals of job insecurity did not buffer the association between qualitative job insecurity and well-being related outcomes. Instead, they amplified only the association between qualitative job insecurity and job satisfaction. In all, these results showed that hindrance appraisals of job insecurity, as an individual-based moderator, can amplify the link between quantitative job insecurity and psychological outcomes (only emotional exhaustion) in Belgium and the link between qualitative job insecurity and psychological outcomes (both emotional exhaustion and job satisfaction) in Iran.

In the second step, in study 4 and 5 of this thesis, we tested the moderating role of boundaryless career orientation, as another type of individual-based moderators, to identify how this moderator could influence the association between quantitative job insecurity and outcomes. The moderating role of boundaryless career orientation was investigated in two ways. First, we tested the moderating role of boundaryless career orientation between quantitative job insecurity and job strains (e.g., life satisfaction and job burnout) and coping reactions (e.g., turnover intention) in the U.S. (study 4) and Belgium (study 5). Results consistently showed that boundaryless career orientation could significantly moderate the link between job insecurity and these outcomes, however, the result for the link between job insecurity and outcomes were not straightforward. Boundaryless career orientation moderated the association between quantitative job insecurity and life satisfactions in U.S. and Belgium. However, it only moderated the association between quantitative job insecurity and job burnout and turnover intentions in Belgium and not in U.S. Secondly, we tested the



moderating role of boundaryless career orientation, as a moderated mediation, between psychological contract breach and those same outcomes. Boundaryless career orientation did not moderate this association. This will be discussed in more detail in the next sections.

Implications for theory

The current thesis adds novel implications to the literature of job insecurity in two general ways. These contributions divide into contributions to stress theories and contributions to existing literature on job insecurity. In the following section, we talk about these contributions in more detail:

- *Contributions to stress theories*

First, the findings of this thesis contribute to the test of outcomes associated with quantitative and qualitative job insecurity within the framework of stress theories such as cognitive appraisal theory and conservation of resources theory. We specified those processes that may link job insecurity to psychological and behavioral well-being giving theoretical explanations and using 2-country cross-sectional studies. In these multi-country studies, a regular replication of findings indicated that the perception of job insecurity was, as expected, associated with a decreased rate of well-being related outcomes in all of the countries included in the analysis. This replication provided additional empirical evidence for the assumptions of cognitive appraisal theory (Lazarus & Folkman, 1984). Based on one of the assumptions of this theory, when individuals encountered a situational stressor such as job insecurity, they may perceive it in a negative light. In fact, the perception of job insecurity as a threat can undermine the coping ability of employees to sustain or adjust with the stressor and this may result in negative outcomes such decreased job satisfaction or increased emotional exhaustion (Piccolo & De Witte, 2015). Our replication in Iran, Belgium and U.S. supported this assumption and its subsequent explanation provided by this theory. From a methodological standpoint, it enhances the generalizability of our findings from a national level to a broader level. Also, our findings were consistent with previous studies that found similar results in U.S. (Probst, Barbaraneli & Petitta, 2014), Australia (Dekker & Schaufeli, 1995), Belgium



(Näswall & De Witte, 2003), Sweden (Sverke, Hellgren & Näswall, 2006), and UK (Ferrie, Shipley, Stansfeld & Marmot, 2002). Replication of these findings for qualitative job insecurity provided a stronger foundation to use cognitive appraisal theory as a means with high predictive-explanatory power.

Secondly, we introduced a new categorization of moderators in the job insecurity-outcomes association. In doing so, we systematically divided the individual-based moderators into cognitive moderators and attitudinal moderators. Cognitive moderators included hindrance and challenge appraisals of job insecurity and attitudinal moderators included boundaryless career orientation (BCO). In addition, these moderators suggested adding novel resources to the concept of personal resources presented in the conservation of resources theory (Hobfoll, 1989). This is because cognitive appraisal theory does not *specifically* talk about the type of personal resources that can moderate this association. Indeed, cognitive appraisal theory fails to specify it in detail. Instead, the conservation of resources theory gives a more specific classification of the resources of individuals. Contrary to cognitive appraisal theory, the conservation of resources theory, which developed after cognitive appraisal theory, provides a more specific explanation of the importance of personal resources in the person-stressor encounter. Yet, conservation of resources theory seems to be unable to differentiate the possible appraisal of individuals when individuals encounter a stressor. It seems a combination of these two theories might provide a good means to explain, on the one hand, how individuals may appraise a situational stressor such as job insecurity as well as how their appraisal may result in negative or positive outcomes, and on the other hand, how individual resources may influence the person-stressor encounter. This may further encourage researchers to move toward using a combination of two theories in which advantages of both theories are maximized and their weaknesses are minimized. The new theory is recommended to include the following cases: 1) the possible appraisals of an individual of a threat are specifically defined and classified, as mentioned in the cognitive appraisal theory, 2) the resources of an individual are systematically defined and classified, as mentioned in the conservation of resources theory, 3) the mechanism that stress influences the individual is described, and 4) the mechanism that an individual uses the resources to deal/adjust with a stressor is described. Besides, introducing *boundaryless career orientation* as a personal resource suggested a new



personal resource to the previous personal resources included in the conservation of resources theory. Also, by testing the moderating role of boundaryless career orientation in the association between job insecurity and life satisfaction we provided more empirical evidence for the propositions of conservation of resources theory.

- *Contributions to existing literature*

First, this study presented and tested a nomological network of outcomes of quantitative and qualitative job insecurity in which job satisfaction and emotional exhaustion are introduced as psychological well-being and absenteeism and presenteeism are represented as behavioral well-being (Studies 1, 2, 3, 4, & 5). Secondly, this study replicated the job insecurity-strain view for the first time in Iran (Studies 2 & 3). This provided more evidence to test our hypotheses in a broader level. In addition, this study highlighted the importance of those threats that may be posed to the features of the job and their impacts on both psychological and behavioral well-being of employees in Iran (Study 3). Thirdly, this study added novel moderators to the job insecurity literature by introducing challenge vs. hindrance appraisals as cognitive moderators and boundaryless career orientation as an attitudinal moderator. This distinction in the type of moderators can be used as a pattern for future studies. Fourthly, it proposes some original interpretations for the job insecurity-emotional exhaustion relationship and the job insecurity-job satisfaction relationship based on the logic of the cognitive appraisal paradigm. These interpretations can be added to cognitive appraisal theory to consider job insecurity as a chronic work stressor that provokes various negative outcomes. Fifthly, study 4 and 5 replicated previous studies in which the mediation effect of psychological contract breach (PCB) between quantitative job insecurity and well-being related outcomes approved (e.g., De Cuyper & De Witte, 2007; Vander Elst et al., 2011). Sixthly, in study 4 and 5 we added a new outcome (i.e., life satisfaction) to the existing studies, which had not previously been linked to PCB.



Implications for research

The current dissertation has implications for research in the realm of moderators of job insecurity. These can open new horizons for future researchers who will conduct research in the area of job insecurity-wellbeing. We briefly talk about these implications below:

i. Psychological outcomes or behavioral outcomes or both?

In all five studies, we tested the association between job insecurity and a variety of well-being related outcomes including psychological (job satisfaction and emotional exhaustion) and behavioral outcomes (absenteeism and presenteeism). Study 1 and 2 showed that quantitative job insecurity was negatively associated with job satisfaction and positively associated with emotional exhaustion. The correlation between quantitative job insecurity and job satisfaction was greater than the correlation between quantitative job insecurity and emotional exhaustion in Belgium and Iran. However, both correlations were greater in Iran than Belgium. Our findings consistently showed that job insecurity is more likely to be highly associated with poor job satisfaction than emotional exhaustion. Besides, as the results of study 3 showed, qualitative job insecurity was negatively associated with job satisfaction and positively associated with emotional exhaustion in Iran. Qualitative job insecurity was only negatively associated with presenteeism and not with absenteeism in Iran. Similarly, quantitative job insecurity and qualitative job insecurity had the same relationship with both psychological outcomes. Consistent with previous studies (e.g., Reisel, Probst, Chia, Maloles, & König, 2010), we can conclude that both quantitative and qualitative job insecurity similarly associate with psychological outcomes. These comparisons may help future researchers learn more about the possible outcomes of job insecurity.

ii. Continuing with National-Sectional Studies

In our five studies, we sampled a high proportion of employees from countries with different social and cultural backgrounds. It may encourage researchers in future to replicate our findings using cross-national samples from those countries that still are untested, and we do not have enough statistical and empirical data to conclude how job



insecurity may influence employees there. These continuous replications approach suggest to us to aim to see whether all employees react similarly and to the same extent to perceived job insecurity. The research design, sampling methods, standardization of scales, and the analyzing method of data in our studies may inspire future studies follow the same procedure while studying these impacts. In short, our studies provide a template for designing future cross-national studies in this area of research.

iii. Facilitating Measuring Hindrance vs. Challenge Appraisals

In order to measure the cognitive appraisals of job insecurity, we needed to go beyond theoretical definitions and develop an instrument to measure the hindrance vs. challenge appraisals of job insecurity. The primary version of this scale was constructed in Belgium and we further developed it in Iran and Italy. This instrument aimed to bring these appraisals from a perceptual aspect to a more objective aspect. This provides a base for future studies to develop this scale both conceptually and methodologically. Also, this initiative instrument may encourage researchers to develop instruments that specifically measure the cognitive evolution of individuals toward different situational stressors such as workload or role ambiguity. Although this scale separated hindrance appraisals from challenge appraisals, it shows that job insecurity is more likely to be associated with hindrance appraisals, rather than challenge appraisals.

iv. Emotional Personal Resources or Cognitive Personal Resources?

In chapter 2 and 3 of this thesis, we suggested future research is needed to differentiate emotional vs. cognitive personal resources from each other. As our findings showed, we did not gain enough confirmation and evidence to assume the cognitive appraisals of employees can significantly moderate the link between job insecurity and all other outcomes. In contrast to our findings, previous researchers showed that those personal resources related to emotions are more likely capable of moderating this association. For example, Xanthopoulou, Bakker, Demerouti, & Schaufeli (2007) and Bakker, Schaufeli, Leiter & Taris (2008) showed that [emotional] personal resources such optimism, hope, positive/negative affects moderate the association between job demands



and strains. This may encourage future studies to give more weight to emotional personal resources than cognitive personal resources while studying the moderators of job insecurity-well-being sequence.

v. Showing Gaps to Future Researchers

These five studies demonstrated research gaps that could be the basis for future studies. First, these studies apply personal resources as a means to reduce the job insecurity-strains association (Studies 1, 2, 3, 4, & 5). This may encourage future studies to test more diverse types of personal resources in this respect. By testing these effects, future researchers would have the opportunity to determine the extent to which the various individual resources can buffer or amplify this link. Furthermore, it helps future studies to compare the moderating power of cognitive appraisals vs. attitudinal appraisals in the association between job insecurity and outcomes. Secondly, based on studies 1, 2 and 3 we suggest future studies to replicate our findings using different research designs, such as experimental approaches or longitudinal studies or a combination of them. Thirdly, we recommend future studies to distinct the impact of job insecurity on job-related attitudes (e.g., job satisfaction), job-related strains (e.g., emotional exhaustion) and job-related behaviors (e.g., absenteeism and presenteeism) while testing these moderators in the association between job insecurity and outcomes. This is because we found different associations between two forms of job insecurity and various outcomes. For example, study 1 and 2 showed that quantitative job insecurity has a greater correlation with job satisfaction than emotional exhaustion in Belgium and Iran, while study 3 showed that qualitative job insecurity has a greater correlation with emotional exhaustion than job satisfaction in Iran. In addition, qualitative job insecurity was only associated with presenteeism and not with absenteeism. In short, we suggest future studies use a specific and distinct categorization of outcomes while studying this association.



Implications for practice

Our findings have important implications for employees and organizations. We discuss these implications based on our findings in more detail below:

First, our results replicated the association between job insecurity and well-being related outcomes in terms of psychological and behavioral well-being across three different cultural contexts (Studies 1, 2, 4, 5). Such consistent replication lends additional weight to the validity of our findings. This is important in practice, since it contributes to realizing that employees in three countries react in a similar way to perceived job insecurity. This may inspire us to use the same or similar intervention programs in any of these countries to reduce the perception of job insecurity in other countries included in this thesis. One of the interventions could be enhancing the network of social support for employees. This is because studies show that both workplace (supervisors and colleagues) and personal (family and friends) supports can mitigate the negative impact of job insecurity on health-related outcomes (Lim, 1996; Viswesvaran, Sanchez, & Fisher, 1999).

Secondly, our findings showed that hindrance appraisals amplified the association between quantitative job insecurity and emotional exhaustion in Belgium. In addition, it amplified the association between qualitative job insecurity and both emotional exhaustion and job satisfaction in Iran. These findings may encourage occupational health psychologists to design and apply interventions to reduce hindrance appraisals of job insecurity or turn them into a less detrimental appraisal of the threats. These interventions could provide employees with information describing the organization's resources and supports available to help employees deal with the feeling of insecurity (Huang, Zhao, Niu, Ashford, & Lee, 2014).

Thirdly, employment provides individuals with valuable experiences, social interactions, and opportunities for personal development and skill use (Jahoda, 1982). The potential loss of such psychologically important factors may lead to reduced individual well-being and mental frustration (Olesen, Butterworth, Leach, Kelaher & Pirkis, 2013). It has been theorized that anticipation of a stressful event might be as harmful as, or even more detrimental for individual outcomes than the actual event itself (For empirical evidence: De Witte, 1999). When applied to employment relationships, this assumption implies that the experience of job insecurity may have at least as many negative outcomes as the actual job



loss itself. In accordance, research has also identified an associations between job insecurity and negative psychological reactions such as anxiety, depression, and distress (Cooper & Melhuish, 1980; Roskies & Louis Guerin, 1990). This may encourage occupational health psychologists or health practitioners to design intervention programs for reducing the hindrance appraisals of job loss or turning these appraisals into challenge appraisals. These interventions could include examples of those insecure employees with and without hindrance appraisals of job insecurity that exprinced (or did not experience) the detrimental outcomes of such appraisals. This may encourage employees to turn their appraisals from a hindrance to a challenge one.

Fourthly, the turnover intention is defined as an employee's inclination to leave his or her workplace. An actual turnover has been found to be very likely the result of intentions to withdraw from the job (Steel & Ovalle, 1984). Based on Cavanaugh and Noe (1999), loyalty and intentions of employees to stay with an organization depends on employers' ability to provide job security for employees. Therefore, to the extent that employer is unable to provide security, the loyalty and intention of the employee may be reduced. According to Ashford et al. (1989), the underlying logic of a relationship between job insecurity and turnover intentions, is that individuals are inclined to withdraw from stressful situations. Job insecurity, as a chronic work stressor, should provoke the withdrawal responses. This may provide predictive insights for employers to avoid losing their employees who feel insecure. These insights can be summarized into three recommendations: 1) we recommend that employers realize the importance of the link between perceived job security and loyalty and the turnover intentions of employees, 2) we suggests that they increase pro-social behaviors within the organization, as these behaviors make employees feel valued and appreciated in the organizational process, and 3) we suggest they learn how to give costructive feedback to employees on their job performance.

Fifthly, the existence of job insecurity may have negative implications for organizational performance. Less secure employees compared with more secure employees have been found to have significantly higher levels of absenteeism and work task avoidance (known as risk-related behaviors) (Probst, 1999). In fact, employees with job insecurity are found to engage in risk-related behaviors when they perceive that the condition of their job



security is not satisfactory (Rundmo & Iversen, 2007). This may assist human resource management of organizations to understand the connection between perceived job insecurity and task avoidance behaviors in their organization. We suggest that they consider implementing programs designed to improve employee wellness. These programs can aim at reducing work stressors, such as job insecurity, and helping employees to return to work.

Sixthly, studies 4 and 5 highlight the need for organizations to actively manage employees' psychological contracts. This might be important because the perceptions of unfulfilled organizational promises can subsequently reduce employees' outcomes. To this ends, several studies have been suggested that both prevent and mitigate the effects of PCB (e.g., Chih et al., 2016). Examples of such studies include providing realistic job information during recruitment processes; making realistic promises in relation to the length of employment, career development, and rewards; and helping managers to more effectively understand and manage employees' perceptions of organizational promises (Rousseau, 1995).

Seventhly, as the negative indirect association of job insecurity and outcomes via PCB are found to be greater for American employees than for Belgian employees, thus we advise American employers to cultivate perceptions of organizational justice. This can be achieved in many ways. First, organizations need to treat employees with sufficient and appropriate respect (Greenberg, 2004). Also, it is important for American employers to show fairness in their decision making, interpersonal treatment of employees, and work procedures. In particular, American employers need to apply unambiguous and fair standards and rules, make decisions based on accurate information, reward employees appropriately based on their contribution, and provide clear and adequate explanations for their decisions that may affect employees future prospects, particularly around the allocation of resources, so that these actions may reduce biases in the workplace (Greenberg 2004). Moreover, these efforts may uphold organizational justice through restoring the sense of equality that has been hurt by PCB (Greenhalgh & Rosenblatt 1984), and therefore they may diminish the detrimental effects perceived PCB on outcomes. Organizational practitioners may use this knowledge to avoid job insecurity which leads to negative outcomes, especially in times of organizational change when the perception of job insecurity is increased. In this respect, practitioners should implement interventions to target the underlying mechanisms of the job insecurity-outcomes



relationship. We suggest that they take actions that reduce the appraisal of the psychological contract breach. For example, using a clear, realistic, and pragmatic communication program, along with the participation of employees (Vander Elst, Baillien, De Cuyper, & De Witte, 2010; Vander Elst et al., 2016) may reduce this association. Also, by setting a reward/punishment system for employers, they may hamper the occurrence of any psychological contract breach or amend it promptly (Probst, Barbaranelli, & Petitta, 2013).

Limitations

Despite the contributions of our studies, there are several limitations that may affect our conclusions. In the following paragraphs, we discuss these limitations in more detail:

First, the findings were established on a cross-sectional research design, which limits us to study the effects of job insecurity on outcomes or its moderators over time. This is because job insecurity is a phenomenon which is influenced by social and economic shocks; thus, studying the moderating effects over time may show differences in how cognitive moderators may consistently (or inconsistently) influence the association between job insecurity and outcomes (Vander Elst et al., 2014; Piccoli & De Witte, 2015). For example, this may preclude us making strong causal inferences about the direct or indirect (via PCB) relationships of job insecurity and its outcomes (Rosposa, & Stone-Romero, 2008), however, where inferred, the direction of our hypotheses is in line with theory. Many previous studies have also acknowledged causal associations in the direction predetermined in our studies (i.e., De Witte et al., 2016). Future research may apply a longitudinal research design to test the same hypotheses with a more convenient research design.

A second possible limitation concerns the characteristics of the sample: women and white-collar workers were over-represented in comparison with the men and the blue-collar population. Also, the samples were not completely representative of working populations. For example, the samples consisted of large groups of well-educated employees with a permanent employment contract or employees from public organizations. There are also many employees who are employed in private companies in U.S., Belgium, and Iran, but this study did not consider them. Such a sample can limit the generalization of the results. Therefore, achieving a more diverse and representative sample would be recommended for future researches.



Moreover, in some studies (i.e., study 4 and 5) we used non-random 2-country samples to test our hypotheses that may also limit the generalizability of the findings from our samples to other samples. We recommend future studies also take this into consideration.

A third possible limitation is that the answers of the respondents might be biased by social desirability bias. This may happen due to applying a self-reported survey in this study (Podsakoff et al., 2003). Although the research team emphasized that the answers will only be used for academics purposes however participants may have had the desire to answer based on the expectations of their supervisors or research team. Therefore, we recommend future studies use a mixture of methods including experimental design or interview techniques to measure the same associations.

Fourth, in this study, we did not consider the role of demographic information such as gender, type of contract and education as well as the organizational rules such as organizational penalties and rewards. These two factors (demographic information and organizational penalties) seem to have an influence on the job insecurity-wellbeing association particularly when we test the same associations across two countries (i.e., study 1 and 2). We highly recommend future studies consider these two factors when the link between job insecurity and well-being related outcomes are studied.

Conclusion

Testing many hypotheses in different countries considerably expanded our knowledge on the detrimental impact of job insecurity in all these contexts. It also indicated that social and cultural contexts might sometimes may influence the way that employees react to a perceived threat. Testing different individual-based moderators, cognitive and attitudinal moderators, we noticed that both types of moderators might have a particular moderating role in the job insecurity-outcomes association. This shows that these moderators have the tendency to differently amplify or buffer the job insecurity-wellbeing association based on the type of outcomes (positive vs. negative outcomes). We suggest future studies test these moderation effects based on each of these outcomes in a more specific and comprehensive way. Besides, we took samples from different geographical regions with differing sample sizes. Although these samples were convenience, we suggest that future studies replicate our findings using more representative samples within cross-national studies. Finally, we



presented a full list of demographic information in all our five studies that help readers to get more involved with the specific characteristics of our samples in different countries, however, we did not consider studying the possible role of demographics information when interpreting our findings. This is because previous studies have shown that demographic information of samples can influence the association between job insecurity and outcomes (e.g., Näswall & De Witte, 2003; De Cuyper & De Witte, 2007). As such, we recommend that future studies control demographic information such as gender, the degree of seniority and type of contract while studying the job insecurity-outcomes association across different countries.



References

- Ashford, S.J., Lee, C., & Bobko, P. (1989). Content, Cause, and Consequences of job insecurity: A theory-based Measure and Subsequences Test. *Academy of Management Journal*, 32(4), 803-829. doi:10.2307/256569
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200. doi:10.1080/02678370802393649
- Cavanaugh, M. A., & Noe, R. A. (1999). Antecedents and consequences of relational components of the new psychological contract. *Journal of Organizational Behavior*, 20(3), 323-340. doi:10.1002/(sici)1099-1379(199905)20:3<323::aid-job901>3.0.co;2-m
- Cooper, C.L., & Melhuish, A. (1980). "Occupational Stress and Managers", *Journal of occupational Medicine*, 22 (9), 588-592.
- De Cuyper, N., & De Witte, H. (2007). Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behaviour. *Work & Stress*, 21(1), 65-84. doi:10.1080/02678370701229050
- Dekker, S. W., & Schaufeli, W. B. (1995). The Effects of Job Insecurity on Psychological Health and Withdrawal: A Longitudinal Study. *Australian Psychologist*, 30(1), 57-63. doi:10.1080/00050069508259607
- De Witte, H. (2016). On the scarring effects of job insecurity (and how they can be explained). *Scandinavian Journal of Work, Environment & Health*, 42(2), 99-102. doi:10.5271/sjweh.3545
- De Witte, H., & Näswall, K. (2003). 'Objective' vs 'Subjective' Job Insecurity: Consequences of Temporary Work for Job Satisfaction and Organizational Commitment in Four European Countries. *Economic and Industrial Democracy*, 24(2), 149-188. doi:10.1177/0143831x03024002002
- Ferrie, J. E. (2002). Effects of chronic job insecurity and change in job security on self-reported health, minor psychiatric morbidity, physiological measures, and health related behaviours in British civil servants: the Whitehall II study. *Journal of Epidemiology & Community Health*, 56(6), 450-454. doi:10.1136/jech.56.6.450



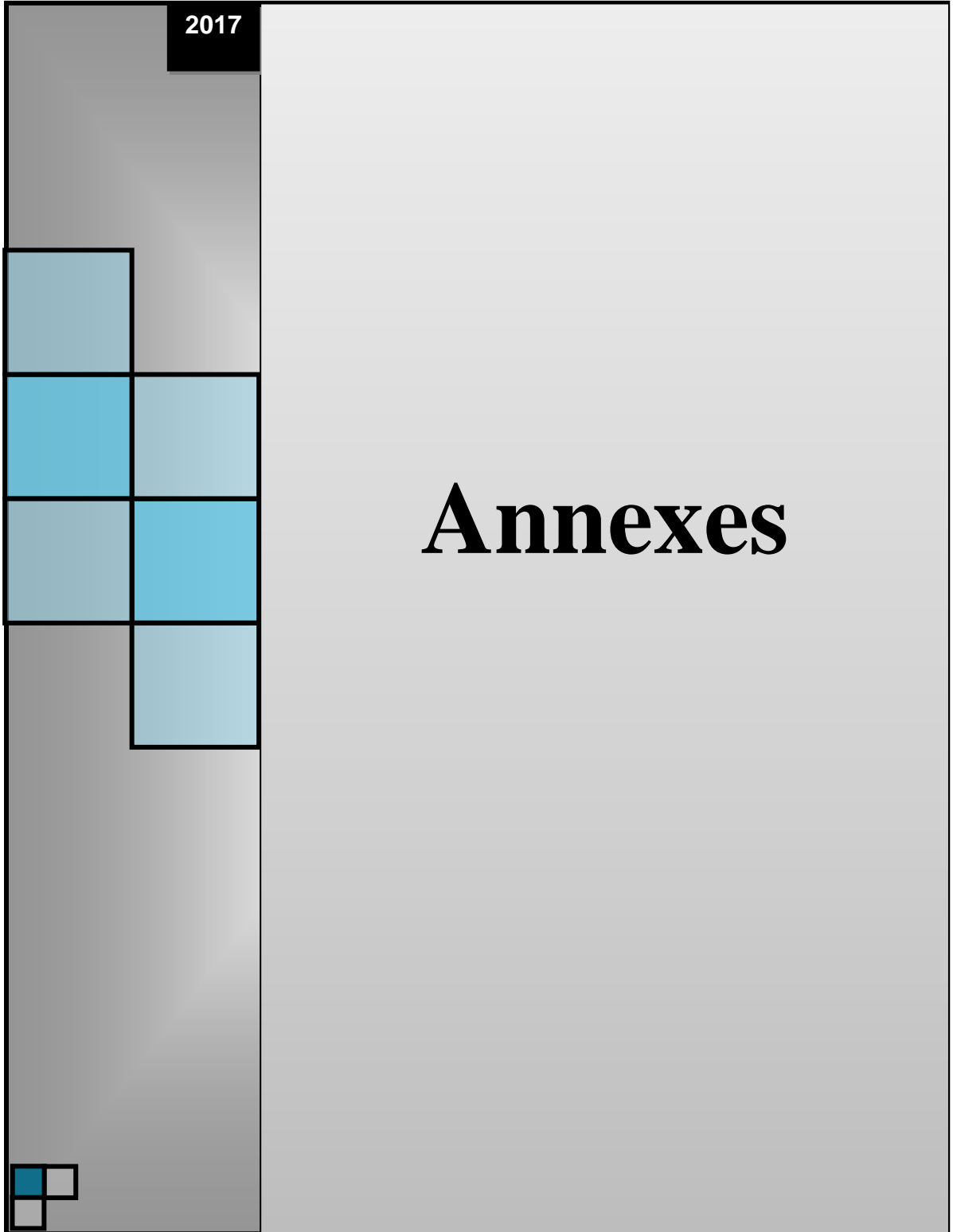
- Greenberg, J. (2004). Stress Fairness to Fare No Stress:. *Organizational Dynamics*, 33(4), 352-365. doi:10.1016/j.orgdyn.2004.09.003
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job Insecurity: Toward Conceptual Clarity. *Academy of Management Review*, 9(3), 438-448. doi:10.5465/amr.1984.4279673
- Hobfoll, 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
- Huang, G., Zhao, H. H., Niu, X., Ashford, S. J., & Lee, C. (2014). "Reducing job insecurity and increasing performance ratings: Does impression management matter?": Correction to Huang et al. (2013). *Journal of Applied Psychology*, 99(1), 86-86. doi:10.1037/a0035129
- Jahoda, M. (1982). *Employment and unemployment: A social-psychological analysis*. Cambridge [Cambridgeshire: Cambridge University Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and, coping*. NY: Springer.
- Lim, V. K. (1996). Job Insecurity and Its Outcomes: Moderating Effects of Work-Based and Nonwork-Based Social Support. *Human Relations*, 49(2), 171-194. doi:10.1177/001872679604900203
- Näswall, K., & De Witte, H. (2003). Who Feels Insecure in Europe? Predicting Job Insecurity from Background Variables. *Economic and Industrial Democracy*, 24(2), 189-215. doi:10.1177/0143831x03024002003
- Olesen, S. C., Butterworth, P., Leach, L. S., Kelaher, M., & Pirkis, J. (2013). Mental health affects future employment as job loss affects mental health: findings from a longitudinal population study. *BMC Psychiatry*, 13(1). doi:10.1186/1471-244x-13-144
- Piccoli, B., & De Witte, H. (2015) Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity, *Work & Stress*, 29(3), 246-263, DOI: 10.1080/02678373.2015.1075624
- Podsakoff, P. M., MacKenzie, S. B., Podsakoff, N. P., & Lee, J. Y. (2003). The mismeasure of management and its implications for leadership research. *The Leadership Quarterly*, 14(6), 615-656. doi:10.1016/j.leaqua.2003.08.002



- Probst T.M., Barbaranelli C., Petitta L. (2013). The Relationship between Job Insecurity and Accident Under-reporting: A Test in Two Countries. *Work & Stress*, 27(4),383-402. DOI:10.1080/02678373.2013.850756
- Probst, T. M., Carnevale, P. J., & Triandis, H. C. (1999). Cultural Values in Intergroup and Single-Group Social Dilemmas. *Organizational Behavior and Human Decision Processes*, 77(3), 171-191. doi:10.1006/obhd.1999.2822
- Reisel, W. D., Probst, T. M., Chia, S., Maloles, C. M., & König, C. J. (2010). The Effects of Job Insecurity on Job Satisfaction, Organizational Citizenship Behavior, Deviant Behavior, and Negative Emotions of Employees. *International Studies of Management and Organization*, 40(1), 74-91. doi:10.2753/imo0020-8825400105
- Roskies, E., & Louis-Guerin, C. (1990). Job insecurity in managers: Antecedents and consequences. *Journal of Organizational Behavior*, 11(5), 345-359. doi:10.1002/job.4030110503
- Rosopa, P. J., & Stone-Romero, E. F. (2008). Problems with detecting assumed mediation using the hierarchical multiple regression strategy. *Human Resource Management Review*, 18(4), 294-310. doi:10.1016/j.hrmr.2008.07.009
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks: SAGE Publications.
- Rundmo, T., & Iversen, H. (2007). Is job insecurity a risk factor in occupational health and safety? *IJRAM*, 7(2), 165. doi:10.1504/ijram.2007.011729
- Shih, C., & Chen, S. (2011). The Social Dilemma Perspective on Psychological Contract Fulfilment and Organizational Citizenship Behaviour. *Management and Organization Review*, 7(01), 125-151. doi:10.1111/j.1740-8784.2010.00202.x
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69(4), 673-686. doi:10.1037//0021-9010.69.4.673
- Vander Elst, T., Baillien, E., De Cuyper, N., & De Witte, H. (2010). The role of organizational communication and participation in reducing job insecurity and its negative association with work-related well-being. *Economic and Industrial Democracy*, 31(2), 249-264. doi:10.1177/0143831x09358372



- Vander Elst, T. V., De Cuyper, N. & De Witte, H. (2010). The role of perceived control in the relationship between job insecurity and psychosocial outcomes: moderator or mediator?. *Stress and Health*, 27: e215–e227. doi: 10.1002/smi.1371.
- Vander Elst, T., Richter, A., Sverke, M., Näswall, K., De Cuyper, N., & De Witte, H. (2014). Threat of losing valued job features: The role of perceived control in mediating the effect of qualitative job insecurity on job strain and psychological withdrawal. *Work & Stress*, 1-22. doi:10.1080/02678373.2014.899651
- Vander Elst, T., Van den Broeck, A., De Cuyper, N., & De Witte, H. (2014). On the reciprocal relationship between job insecurity and employee well-being: Mediation by perceived control? *J Occup Organ Psychol*, 87(4), 671-693. doi:10.1111/joop.12068
- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The Role of Social Support in the Process of Work Stress: A Meta-Analysis. *Journal of Vocational Behavior*, 54(2), 314-334. doi:10.1006/jvbe.1998.1661
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141. doi:10.1037/1072-5245.14.2.121





Annex 1. Confirmed items obtained from CFA for the challenge vs. hindrance scale in Belgium and Iran

Challenge appraisal	Belgium	Job insecurity provides opportunities to improve my job skills.	<i>Confirmed</i>
		Job insecurity makes me focus on my work so that I can perform well.	<i>Confirmed</i>
		Job insecurity gives me the feeling that I can achieve something.	<i>Confirmed</i>
Hindrance Appraisal	Belgium	Job insecurity undermines my concentration on my job.	<i>Confirmed</i>
		Job insecurity limits me in performing well.	<i>Confirmed</i>
		Job insecurity undermines my work efforts.	<i>Confirmed</i>
Challenge Appraisal	Iran	Job insecurity provides opportunities to improve my job skills.	<i>Confirmed</i>
		Job insecurity makes me focus on my work so that I can perform well.	<i>Confirmed</i>
		Job insecurity gives me the feeling that I can achieve something.	<i>Confirmed</i>
Hindrance Appraisal	Iran	Job insecurity undermines my concentration on my job.	<i>Confirmed</i>
		Job insecurity limits me in performing well.	<i>Confirmed</i>
		Job insecurity undermines my work efforts.	<i>Confirmed</i>

Annex 2. Confirmed and discarded items obtained from CFA for the hindrance vs. challenge appraisals scale in Iran

Hindrance Appraisal	HI1	Job insecurity seems like a threat to me	<i>Discarded</i>
	HI2	Job insecurity undermines my concentration on my job	<i>Confirmed</i>
	HI3	Job insecurity limits me in performing well	<i>Confirmed</i>
	HI4	Job insecurity undermines my work efforts	<i>Confirmed</i>
Challenge Appraisal	CH1	Job insecurity seems like a challenge to me	<i>Discarded</i>
	CH2	Job insecurity provides opportunities to improve my job skills	<i>Confirmed</i>
	CH3	Job insecurity makes me focus on my work so that I can perform well	<i>Confirmed</i>
	CH4	Job insecurity gives me the feeling that I can achieve something	<i>Confirmed</i>