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Résumé

Comme d'autres pays de l'Europe de l'Ouest, les Pays Bas ont été témoins d'une hausse de l'âge moyen de sa population active. Depuis quelques années, ces changements ont incité le gouvernement Néerlandais à revoir l'imposition sur les plans de préretraite dans le privé et à repousser l'âge légal de départ à la retraite. En même temps, les entreprises demandent aux employés d'être de plus en plus employables pour pouvoir compenser la perte de sécurité de l'emploi à vie. Bien qu'il y ait beaucoup de stéréotypes sur les motivations et capacités des travailleurs seniors, ces employés vont devoir travailler plus longtemps et sont plus susceptibles de changer d'emploi et à continuer à se développer.

Le but de cette étude était d'examiner comment les contenus des relations employeur/employé, conceptualisés à travers le contrat psychologique, influencent certaines intentions de carrières liées à l'employabilité, pour un échantillon d'employés âgés entre 45 ans et 55 ans et actifs sur le marché du travail néerlandais. Un deuxième but était d'étudier comment les stéréotypes influencent cette relation.

Notre modèle de recherche a été conceptualisé par une étude quantitative dans laquelle environ 1100 employés ont participé. Nous avons trouvé que les incitations déficit/excès et le niveau d'accomplissement de dimensions de contrats psychologiques spécifiques avaient différentes relations avec les intentions de carrières des participants et que le fait de s'identifier comme étant un travailleur âgé avait un effet modérateur sur quelques unes de ces relations.

Mots clés: contrat psychologique, fin de carrière, employés seniors, intentions de carrière, mobilité professionnelle, activités de développement.

Abstract

Like other Western European countries, the Netherlands has witnessed an increase in the average age of its working population. Since a few years these changes have incited the Dutch government to review the taxation of private early retirement schemes and to push back the legal retirement age. At the same time companies are asking employees to be ever more employable, so that they can compensate for the loss of lifelong employment security. Although there are many stereotypes about the motivation and capabilities of older workers, these employees will now have to work longer and are more likely to change jobs and to continue developing themselves.

The goal of this study was to examine how the contents of the employer-employee relationship, conceptualized through the psychological contract, influence two employability-related career intentions for a sample of employees aged 45-55 and active on the Dutch labor market. A second goal was to study how stereotypes influence this relationship.

Our research model was realized through a quantitative study in which almost 1100 employees participated. We found that deficient/excess inducements and the level of fulfilment of specific psychological contract dimensions had different relationships with the career intentions of participants and that the seeing oneself as an older worker had a moderating effect on some of these relationships.

Key words: psychological contract, late career, older employees, career intentions, job mobility, development activities.

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Introduction

The late career is currently a topic for a lot of debate in the Netherlands. Changes to the Dutch retirement system, mainly due to (1) an increase of the number of older people in the Netherlands, and (2) an increase in longevity (Nauta et al., 2005), have led to a slight change in the actual retirement age of Dutch employees (Otten et al., 2010). The Government initially tried to discourage people from leaving on early retirement through the Early Retirement, Pre-pension and Life-course Savings Scheme Act (VPL) of 2006. This act was put into place in order to make early retirement financially less attractive for employers and employees (Henkens & Leenders, 2010).

Otten et al. (2010) reported that initial results of the new policy showed a significant change in people leaving on early retirement before the age of 60 (18000 in 2006 and 8000 in 2007) and a slight increase in retirement after 60 (average age 61 in 2006 and 62 in 2007). Besides dissuading people from opting for early retirement the Dutch government decided in 2010 that the legal age for state retirement benefits is to be gradually raised to the age of 67 in the coming years. Over the course of the next 25 years the percentage of older Dutch employees above the age of 45 will increase to around 40% of the active working population (Nauta et al., 2005). Even though it is not yet clear how many older employees will forfeit on early retirement and will keep working until the legal retirement age it is becoming clear that, based on the information that was available in 2010, the majority of employees will retire towards the ages of 62-65 instead of 57-60, which was not an exception a few years ago.

Although the government is trying to motivate the group of older employees to continue to work until the legal retirement age there are also signs that, even if they wanted to, a large number of older employees are not able to do so. Very few older workers that lose their job succeed in finding a new job (Bloemen, 2011, De Vries, 2012), Corpeleijn (2009) reported that only 7% of Dutch employees aged 60 and up that lost their job in 2003 had found a new job two years later. The Dutch labor law has strict rules and regulations regarding the hiring and firing of employees and in the absence of a valid reason for firing an older worker it is to be expected that the employer will look for other solutions. One of these possible solutions is demotion, which entails a downward hierarchical move. Where demotion was considered to be a taboo in the work environment before, it is becoming more and more

common practice (West et al., 1990) and is considered to be part of an age-conscious HR policy (Josten & Schalk, 2005).

These changes have consequences for a lot of people that are currently aged 45-55 because they will change their planning from early retirement before 60 to retirement after 62, and even later if we are to believe the Dutch government. It means that a lot of employees will have to add a number of years to their career. The remainder of this career is however not necessarily devoid of any changes. Older workers can no longer rely on previous experiences because of rapid changes in technology (Friedberg, 2003). If they do not invest in development activities this group risks their human capital will become obsolete (Van Dalen et al., 2008). At the same time they have to be prepared for frequent movements in between jobs and employers (e.g. Hall & Mirvis, 1995, Warr & Birdi, 1998, Baruch, 2006). This emphasis on employability is important because older workers will have to remain active in order to stay employable during the late career. Van Veldhoven & Dorenbosch (2008) found that certain HR practices were related to developmental proactivity and willingness to accept job mobility has been found to be related to a wide variety of personal, organizational, and contextual aspects (NG et al., 2007).

Key concepts

Psychological contract

This study examined how the contents of the employment relationship, using the concept of psychological contracts, influence two employability related career intentions: development activities and mobility intentions. Rousseau (1990) defined the concept as follows: “A psychological contract is an employee’s perception regarding mutual obligations in the context of his relationship with the organization, which shape this relationship and govern the employee’s behavior”.

The psychological contract consists of “individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization” (Rousseau, 1995). There are different ways to measure psychological contracts. Rousseau & Tijoriwala (1998) presented a framework for psychological contract measurement that contained three forms: feature-, content-, and evaluation-oriented. The content oriented

measure was chosen for this study. The contents of the psychological contract are the obligations that make up the psychological contract. Researchers are interested in content measures because they offer insights into the specific inducements of the psychological contract (Sels et al, 2004). As with HR practices this measurement orientation allows for the identification of relationships between specific obligations and outcome variables.

The Tilburg Psychological Contract Questionnaire or TPCQ (Freese et al., 2010), which is a psychological contract measure that has been developed for examining contract contents and evaluation in a Dutch-speaking context, was selected to conceptualize the psychological contract because it uses a clear distinction between different types of dimensions that form the psychological contract. The questionnaire measures six dimensions of employer obligations: job content, career development, social atmosphere, organizational policies, work-life balance and rewards. The use of a set of dimensions is interesting because the psychological contract changes over time (Schalk, 2004) and specific sets allow for a more precise examination of relationships between sets of obligations, that can be compared to HR practices used in companies, and career intentions for older workers.

On the basis of the literature review it was hypothesized that certain of these dimensions would have positive relationships with the outcome variables for older workers. As the literature review will develop, older workers appear to have higher expectations on relational employer obligations (Kalleberg & Rognes, 2000) and attach more importance to work-life balance (Beehr & Bowling, 2002, Ng & Feldman, 2007) and rewards (e.g. Freese and Schalk, 1996, Schalk, 2004).

Older workers

There has been considerable debate regarding the definition of the older employees (e.g. Sterns & Subich, 2002, Maurer, Wrenn & Weiss 2003, Kooij et al., 2007, Ng & Feldman, 2008). As a result, studies have used the cut-off point of 40 (e.g. Warr , 1993, Daveri & Maliranta, 2007, Maurer et al., 2008, Van der Heijden et al., 2009), 45 and up (e.g. Bailey & Hansson, 1995, Josten & Schalk, 2005, Nauta et al., 2005, De Lange et al., 2010), or 50 and up (e.g. De Lange et al., 2005, Greller, 2006, Loretto & White, 2006, Armstrong-Stassen & Schlosser, 2008, Henkens & Leenders, 2010, Krings et al., 2011).

However, researchers do not necessarily use chronological age as sole variable regarding their conceptualization of age. Sterns & Miklos (1995), Sterns & Subich (2002), Greller & Richtermeyer (2006) and Kooij et al. (2007) use some or all of the 5 approaches that were originally proposed by Sterns & Doverspike (1989) in order to distinguish adult life and career stages. These approaches are: (1) chronological-legal, (2) functional, (3) psychosocial, (4) organizational, and (5) life span orientation.

Rousseau's definition of the psychological contract (1990) implies that there has to be an employment contract in order for the contract to be existent. Therefore participants in this study had an employment contract at the time of the data collection. We would like to point out that we use the terms older worker and older employee throughout this thesis. The words worker and employee are therefore interchangeable in this study. Although the word worker might have a connotation with manual labour or a working-class person, it has been used in previous studies to regroup employees with different degrees, working at a variety of organizational levels. A meta-analysis by Bal et al. (2008) used to term older workers for the entire sample, although a lot of the studies included in the analysis had examined samples that consisted of US managers, Taiwanese and US MBA students, MBA alumni, and so on.

Career intentions

The first career intention that we measured was intentions to participate in development activities. Renkema et al. (2009) defined development intentions as 'the intention to participate in development activities for employability in the current function, as well as for changing functions or jobs within or outside the organization in which the worker is currently employed.' Intentions to participate in development activities have been identified as a strong predictor for actual participation (Maurer, Weiss, and Barbeite, 2003).

The second set of career intentions examined a number of mobility intentions. Mobility is a relevant variable because employability can be measured through investing in training and education and by moving in between positions (Van Dam et al., 2006). According to Veiga (1983) the willingness to accept a mobility opportunity is one of the most common conceptualizations of measuring career mobility. Mobility is applied to situations in which an employee moves from one work setting to another, either within the organization or elsewhere (Ng et al., 2007).

The identity of an older worker

The identification with the stereotype of being an older worker was selected as a moderator variable because age stereotypes influence the self-efficacy for learning and development (Maurer, 2001). Older workers who identify themselves with negative stereotypes about their abilities to master that what is taught will be less confident and might choose not to participate in a specific training (Kanfer & Ackerman, 2004). Low identification might lead to employees trying to break loose from the beliefs regarding older workers (Herrbach et al., 2009). We therefore hypothesized that the extent to which an older employee will identify with age-related stereotypes will also have an impact on the mobility intentions of that person. This resulted in the research model that will be presented at the end of chapter two.

Research objectives

The purpose of this study was to examine the relationships between the individual dimensions of the psychological contract and two employability related career intentions for a sample of workers aged 45-55, active on the Dutch labor market: intentions to participate in development activities and intentions to accept mobility options. The second objective was to establish if the extent to which an employee identifies him or herself with the stereotype of being an older worker has any affects on these relationships. Four research questions were formulated and formed the basis for the definition of the different hypotheses. The research questions were: (1) what are the influences of deficient and excess inducements on the career intentions of older workers, (2) what is the relationship between the absolute levels of fulfilment and the outcome variables, (3) what are the differences between the psychological contract content-dimension relationships with career intentions, and (4) what is the influence of a higher or lower identification with the social group of older workers on the different relationships.

Research design

This study adopted an etic research perspective and the approach of this study was therefore quantitative. Rousseau & Tijoriwala (1998) describe the etic perspective as a theory oriented approach in which the researcher assesses 'general constructs, typically derived from

theory, meaningful to individuals across a variety of settings'. The measurement of the data was done through the use of a cross-sectional design. We tested a set of hypotheses that were derived from the literature review. The measurement of the different variables was achieved through the use of a self-administered questionnaire that was filled out by a sample of 1100 Dutch employees in the age group 45-55.

Research findings

We found that levels of deficient inducements are positively and levels of fulfilment are negatively related to perceived psychological contract violation. The three-dimensional surfaces that we used to examine the outcomes of the polynomial regression analyses did not show any differences between the separate models for the psychological contract dimensions. After dividing the sample into two separate groups for low and high identification with the stereotype of being an older worker, the analyses were run again and found similar results. The only dimensions that showed a different surface was work-life balance, which reported a negative relationship between excess inducements for the low identification group and a positive sign for the same relationship for the high identification group.

Regarding development activities we found that, with the exception of social atmosphere, all models showed a positive relationship between deficient inducements and development intentions. This suggests that participants want to invest in their career opportunities as the level of perceived psychological contract breach through deficient inducements increases. Some models also reported a positive relationship for over-fulfilment, although deficient inducements had higher levels of development intentions. For most models higher absolute levels of fulfilment had a positive influence on the intentions to participate in development activities. We also used structural equation modeling in order to establish what the different relationships between the variables in the research model would be if only obligations or delivered inducements were examined. We found that there are different significant structural paths for both sets. The identification with the stereotype of an older employee was found to moderate some of the relationships for development activities, such as the relationship with absolute fulfilment levels for rewards.

The three-dimensional response surfaces for the intentions of external upward mobility showed that participants reported a positive relationship between deficient inducements and

the intentions to accept a job at another company in which they would have more responsibilities. Over-fulfilment on job content and career development was positively related to the willingness of accepting a job with more responsibilities.

For downward mobility we found a negative relationship between the higher levels of deficient inducements and intentions, which suggest that participants were less motivated to accept a job with fewer responsibilities when they received the lowest levels of inducements compared to the perceived employer obligations. The findings for absolute levels of fulfilment were that the intentions for mobility II dropped for all dimensions as absolute levels of fulfilment increased. Certain models showed opposite results for the low and high identification groups.

Relevance of this study

This study is relevant because there are few studies that focus specifically on the group of older workers. Most studies on psychological contracts measure larger samples and compare different relationships between age groups, such as younger and older employees. This study is to our knowledge the only one in which the TPCQ was used to examine a diverse sample in this specific age range in the Netherlands. It is also the only study that used polynomial regression analysis in the Dutch context to show the combined effect of obligations and delivered inducements on the dependent variables. Especially the absolute levels of fulfilment were informative and this fulfilment line is not identified as such while using difference scores.

Structure of this thesis

This thesis has four chapters divided over two main parts. The first two chapters present the literature review. The independent variables of the research model can be found in the second chapter and the dependent variables and moderator variable are all presented in chapter one. Chapter one explores research on older workers, career intentions, and stereotypes. After issues concerning the definition of older workers, chapter two will go on to address common research topics and different economic and social factors that are changing the context in which older workers find themselves. The next paragraphs are dedicated to the different variables in the research model. We will start with mobility intentions. An overview

of topics and findings give readers an idea of what has been studied over the last decades. The next paragraph will discuss development activities. Besides defining what development activities are we will address the abilities and willingness of older workers to participate. The last paragraph explores the influence of stereotypes and social identity theory on the career intentions that were presented in the previous sections.

Chapter two gives an overview of relevant research on psychological contracts. After a historical account regarding the development of the concept of psychological contracts the following paragraphs discuss more recent research. These paragraphs explore the different aspects of the concept, using Rousseau & Tijoriwala's (1998) framework for psychological contract measurement: feature-, content-, and evaluation-oriented. A final paragraph presents research on psychological contracts of older workers.

The second part of this thesis accounts for the research design, data collection, analysis, results, research findings, and discussion. Chapter three will start by giving an overview of the research questions and the development of the separate hypotheses that were tested later on. After the research design phase we will explore the different steps that were taken in order to prepare the research tools and to carry out the data collection. The next step in chapter three is a description of the sample and the different data analysis techniques that were used. The data analysis part is divided into three parts: (1) factor analysis, (2) polynomial regression analysis, and (3) structural equation modelling. The fourth and final chapter explores the findings and presents the reader with a discussion of these findings. The last paragraphs are devoted to limitations regarding this study and the suggestions for future research and practice.

Chapter One

Older workers, stereotypes and late career decisions

1 Older workers, stereotypes and late career decisions

1.1 Introduction

This chapter will give the reader an overview of the context, sample, dependent variables and moderator variable that have been used in this study. The chapter will start with a non-exhaustive overview of research on older workers. Issues regarding the definition of older workers, career concepts, age discrimination and stereotypes are presented in order to give the reader an idea of the different studies that have been published. The overview is non-exhaustive because some research will only be presented briefly or not at all. An example is the research on bridge employment.

Although this is a research topic that is very interesting in the United States, it is not relevant in the Netherlands as bridge employment is virtually non-existent. The structure of Dutch retirement schemes in combination with HR practices and cultural attitudes does not see older people having to work in order to make ends meet after they retire from their regular job. Another topic that is not treated in this chapter is the research on retirement decisions. As the sample for this study is 45-55 years old, and the Dutch legislation regarding the legal retirement age is moving from 65 towards 67 in the coming years, we consider that the reasons for retiring fall outside of the scope for this study, as these decisions are not necessarily taken 10 years or so in advance.

The context of relevant changes in the Netherlands is highlighted before presenting the dependent variables in the research model, development activities and mobility intentions. For both variables a more general introduction will be followed by research concerning older workers. The last paragraph in this chapter will discuss the identification of an employee with stereotype of being an older worker. This variable acts as a moderator variable in the research model.

1.2 Defining the older worker

There are different ways of defining an older employee (e.g. Sterns & Doverspike, 1989). Researchers can use chronological age, generational cohorts, career theories, and so

on. This paragraph will present a number of possible tools to determine whether an employee can be defined as an older worker or not. After the identification of older worker, we will discuss research related to this minority group and the issues of ageism, stereotypes and age discrimination.

1.2.1 When is someone an older employee?

1.2.1.1 Defining age

There has been considerable debate regarding the definition of the older worker (e.g. Sterns & Subich, 2002, Maurer, Wrenn & Weiss 2003, Kooij et al., 2007, Ng & Feldman, 2008). The result is that some studies use a different definition of the older worker than others. Ng & Feldman (2008) concluded that researchers frequently use the legal definition from the United States Age Discrimination in Employment Act (ADEA), which provides a legal framework for the protection of employees over 40. Although the ADEA provides a cut-off point at 40 for American researchers this does not mean that only American researchers use the age of 40 to make a distinction between younger and older workers. There have been a number of European and American studies that have used the cut-off point of 40 (e.g. Warr , 1993, Daveri & Maliranta, 2007, Maurer et al., 2008, Van der Heijden et al., 2009). Other studies define older workers as aged 45 and up (e.g. Bailey & Hansson, 1995, Josten & Schalk, 2005, Nauta et al., 2005, De Lange et al., 2010), or 50 and up (e.g. De Lange et al., 2005, Greller, 2006, Loretto & White, 2006, Armstrong-Stassen & Schlosser, 2008, Henkens & Leenders, 2010, Krings et al., 2011).

According to Kooij et al. (2007) there are also differences regarding the definition of the older worker between specific fields of research, with researchers studying older employees in organizational contexts using the term older worker to refer to people over 40 and researchers examining participation on labour markets using old for people over 50. The distinction between older and younger workers is not necessarily made on the basis of chronological age alone. Sterns & Miklos (1995) suggested that it is very difficult to capture the multidimensional process of aging in a single definition. A number of recent studies show that chronological age may serve as a proxy for age-related processes that influence outcomes

in the work environment and that age-related changes in motivational variables have more impact on work outcomes than chronological age (Kanfer & Ackerman, 2004).

The result is that researchers do not necessarily use chronological age as sole variable regarding their conceptualization of age. A factor that might lead to more debate about the issues regarding the definition of the older worker in the near future is the actual aging of the workforce in Northern American and European countries, which can alter perceptions of when someone is considered middle-aged or old (Ng & Feldman, 2008).

1.2.1.2 Different ways of conceptualizing age

Sterns & Miklos (1995), Sterns & Subich (2002), Greller & Richtermeyer (2006) and Kooij et al. (2007) use some or all of the 5 approaches that were originally proposed by Sterns & Doverspike (1989) in order to distinguish adult life and career stages. These approaches are: (1) chronological-legal, (2) functional, (3) psychosocial, (4) organizational, and (5) life span orientation. The chronological-legal approach refers to chronological or calendar age and is the most frequently used indicator to define the distinction between younger and older workers (Sterns & Miklos, 1995). Empirical studies often use a great variance of age categories, without providing any scientific explanation for the selected categories (Peeters & Van Emmerik, 2008). The legal aspect of this approach refers to legal cut-off points, provided by legal definitions of age, such as the United States Age Discrimination in Employment Act (Sterns & Subich, 2002). A majority of the legal aspect related decisions (e.g. legal retirement age) are not taken by the employee himself. Therefore chronological age outcomes are often part of the context in which the older employee is active (Greller & Richtermeyer, 2006).

The functional approach refers to the decline of individual employee performance, as they get older. Kooij et al. (2007) suggest that biological and psychological changes during the aging process may have an impact on the older employees' health, cognitive abilities and performance. This concept has been widely criticized (Sterns & Subich, 2002), as age-related decline in for instance mental functions does not apply to the majority of employees, aged 50 and up (Greller & Richtermeyer, 2006), but is more likely to occur after retirement (Farr & Ringseis, 2002).

The psychosocial approach provides definitions of middle aged and older employees that are founded on social perceptions such as the aging of knowledge and skill sets (Sterns & Subich, 2002). Self-perception is also part of this approach and Kooij et al. (2007) therefore use the term subjective age because it involves how old an employee feels, looks and acts. Social and self-perception of one's age may influence the behavior of older employees (Greller & Richtermeyer, 2006). There are different ways of conceptualizing one's subjective age. Maurer, Weiss & Barbeite (2003) used two different measures: perceived relative age and subjective age. The first measure, which they called perceived relative age, measures how old employees feel, compared to the other people in the work environment. The second measure, which they named subjective age, looks at how young or old employees perceive themselves. Self-perception and identification with the stereotype of being an older worker are discussed in paragraph 1.6.

The organizational view examines the effects of age and tenure. Effects of aging can potentially be mixed-up with the effects of tenure and vice versa (Sterns & Subich, 2002). Organizational age does not necessarily refer to tenure alone, but can also relate to career stage, skill obsolescence and company related age norms (Kooij et al., 2007). The life span approach differs from other views of development orientations in that it assumes that behavioural change processes from a developmental point of view, may occur at any point across an individuals' life span (Baltes et al., 1980).

The life span concept identifies three sets of influences on the development of every individual throughout his or her life. These are normative age-graded, normative history-graded and non-normative influences (Baltes et al., 1980). The normative age-graded influences are related to chronological age. The normative history-graded influences are influences that affect members of the same generational cohort in the same way. Finally, the non-normative influences will affect individuals only. Examples for a non-normative influence would be a career change and individual health events (Sterns & Miklos, 1995). The life span approach suggests that variability between individuals, increases with age, and especially for older adults, meaning that there will be more heterogeneity for a sample of older employees (Baltes et al., 1980). Part of the heterogeneity of the group of older workers can be explained through the greater variety in options that these employees have, such as the possibility to continue their career, change careers, start new careers, and retire from the active working population (Ulrich & Brott, 2005).

1.2.1.3 Generational cohorts

Another way of making a distinction between younger and older employees is through the use of generational cohorts to which an employee belongs. Generational cohorts are used to identify individuals who share historical or social life experiences that will be a constant factor throughout their entire lives (Smola & Sutton, 2002) because they can shape generational values (Finegold et al, 2002). These events may be unique for each cohort, such as economic depressions, wars or major epidemics (Baltes et al., 1980). The sample for this study consists of employees aged 45 to 55 years. This places them in the second half of the Baby Boom generation, born between 1946 and 1964. Hess & Jepsen (2009) described the baby boomer as being an older worker. The other generational cohorts that are active on the labor market are the generations X and Y.

Although there is debate over the exact cut-off points for the cohorts (e.g. Smola & Sutton, 2002), there is more or less consensus that generation X are people born between roughly 1964 and 1980 and that people belonging to generation Y were born after 1980. Smola & Sutton (2002) found that generational experiences have a bigger impact on work values than chronological age. In paragraph 1.6 we presented a study by Hess & Jepsen (2009) that found significantly higher levels for both relational and transactional employer obligations for the Baby Boom cohort than for the Generation X cohort and a study by Lub et al. (2011) that found differences between the Generation X cohort and Generation Y cohort regarding transactional and relational psychological contracts, with Generation Y participants reporting increased relational expectations.

1.2.2 Career theories

1.2.2.1 The relevance of career theories

One of the ways that older workers are identified is by the career stage at which they are presumed to be. In career models, the older worker is not identified by the exact chronological age, but by the major life periods that the model identifies and links to certain age ranges (e.g. Veiga, 1983, Noe et al., 1988). Career stages can be relevant in defining older employees because some of the stereotypes and popular beliefs that will be discussed in the

following paragraph are anchored in to the life periods that are used in the different career theories. The older career models identified specific work activities and psychological issues for each stage in an employees' life (Cohen, 1991).

Career theories are not always right and are not necessarily based on empirical data (Feldman, 1999). Most of the traditional career models remained dominant for as long as they did, because the majority of organizational structures supported them (Sullivan, 1999). There exists a range of career models. In the following sections, a few career models that are known as organizational models and the more recent models, the boundaryless and protean career models, are presented. As most models share a certain resemblance the goal of the following section is not to be exhaustive, but to give a few examples.

1.2.2.2 Careers

The organizational career concepts were based on the idea of lifelong employment with the same firm and valued seniority and maturity (Hall & Mirvis, 1995). An organizational career resembles the occupational career that was described by Super (1980) as 'the sequence or combination of occupational positions held during the course of a lifetime.' The later career stages used to be the stages in which employees would not necessarily participate in development activities because they were considered as the group that had mastered the trade and could continue to work by maintaining the levels already attained (Maurer, Weiss & Barbeite, 2003). The shift from the traditional career perceptions towards the protean and boundaryless career concepts has also changed the way that companies think about career development regarding older workers and this group will now have to invest in acquiring competencies, such as identity development and adaptability, in order to keep up with the continuous learning that is part of the new career concepts (Hall & Mirvis, 1995).

Most career concepts use different career stages to indicate the position of an employee on the career time-line. Examples of such career concepts are those proposed by Super et al. (1957) who suggested three career stages during the employees' vocational career that typically runs from the age of 25 to 65: exploration, establishment, and maintenance, or the career concept of Veiga (1973, 1983) who identified three career stages: learning (age 29-37), maturity (age 38-55), and preretirement (age 56-64). Cohen (1991) performed a meta-

analysis on 30 studies with 41 different samples in order to examine the moderating effect of career stages on the relationship between organizational commitment and outcomes. Cohen divided the sample into three subgroups so as to replicate previous operationalizations (early-, mid-, and late career) in the career literature, by using two career stage indicators: age (up to 29, 30 to 39, and 40 years and above) and tenure (up to 2, 3 to 8, and 9 and more). According to Cohen both indicators had the same effect on the relationship between the variables, although the size of their effect was different.

Cohen reported that for the indicator age the relationships between organizational commitment and intentions to leave the company, and actual turnover were moderated by the career stage, as the relationship was less strong for mid- and late career. For the indicator tenure, the relationship between organizational commitment and performance, and absenteeism were stronger for late career. Hess & Jepsen (2009) studied the differences in psychological contracts between career stages, using Super's theory of career development, but were unable to identify significant differences between the stages.

Super (1957) proposed a framework called the life-career rainbow within his developmental self-concept theory. This framework was developed to identify the different aspects of a persons' career in relation to the life span, which Super called the career pattern. The different roles that a person has (such as student, worker, parent, citizen) and the personal and situational determinants make up the career pattern. According to the revised life-career rainbow (Super, 1980) we can identify five stages of the career developmental process: growth, exploration, establishment, maintenance and disengagement. The process along these five stages is called the maxi cycle. Within the stages there can also be mini cycles, as people move in between functions, job, and careers. This means that a person in, say the maintenance stage of the career pattern can experience the same five stages, but in a shorter form. Someone can grow to see that he or she wants a change.

After exploring the different possibilities an opportunity is selected and through development establishment in the new situation is realized and the employee is able to maintain the role. As the employee has grown into the new role, he or she can then start to disengage from parts of the job that are no longer relevant. The establishment and maintenance stage appear to be the most relevant stages for older workers (Sterns & Subich, 2002). One of the characteristics of the maintenance stage is that employees start thinking

about holding on to their place in the working environment, until they will eventually move into the disengagement stage and retirement (Sterns & Subich, 2002). A study by Ebner et al. (2006) concluded that a maintenance orientation had a positive relationship with the subjective well being of older workers, compared to a negative relationship for younger workers.

1.2.2.3 Boundaryless and protean careers

The boundaryless and protean career concepts are two distinct constructs and have been widely discussed in the literature (Baruch, 2006). Both concepts do not consider the career as a steady progression along predictable stages within the context of a single organization. Arthur & Rousseau (1996) described the boundaryless career as careers that experience movements across organizational boundaries, break traditional ideas about career advancement, see employees choose personal or family interests over career opportunities, are kept going by external networks, draw their marketability and validation from outside of the employing organization, are based on the perceptions of the employee. Sullivan (1999) compared the traditional career to the boundaryless career and stated the following differences between the two career models: employment relationship (job security versus employability), boundaries (one or two organizations versus several organizations), skills (unique to the organizational context versus applicable in other environments), measurement of success (salary, promotion and status versus work that is meaningful), who is responsible for the management of one's career (employer versus employee), development (formal versus informal), the identification of significant accomplishments (on the basis of age versus on the basis of development).

Besides the boundaryless career, there is another career concept that is called the protean career. Hall (1996) described the protean career, as: 'a career that is driven by the person, not the organization, and that will be reinvented by the person from time to time, as the person and the environment change.' When the organizational career could be seen as a steady upward progression along set points, the protean career can have ups and downs, lateral moves to comparable jobs, and changes between different lines of work (Hall & Mirvis, 1995). Within the protean career literature there has been discussion regarding the older workers. Hall & Mirvis (1995) identified positive and negative sides of protean careers

for older workers. Positive aspects for older workers in a protean career are that this group of workers is flexible and autonomous, which makes for a good match with the conceptualization of being initiator of ones' own career. Hall & Mirvis identified a negative point regarding career success: the increased room to manoeuvre between different opportunities that combine salary and personal interests.

Career success within the protean career construct can for instance consist of: fulfilment, feelings of self-actualization, and one's satisfaction from the own career (Baruch, 2006). Since the goal of the protean career is psychological success, and not getting higher up in the organization with an increase in salary (Hall, 1996), the older worker might have difficulties moving away from these traditional ideas. Another negative aspect for older workers mentioned by Hall & Mirvis (1995) is the move towards more individual work solutions within the protean career, such as becoming an independent contractor, while this group would prefer a more traditional workplace in order to have sufficient social interaction. Research has produced findings that show that employees are no longer reasoning in traditional career concepts. A study by Finegold et al. (2002) for instance, found higher commitment across different age groups when the organization satisfied their needs for continued development.

1.2.2.4 Bridge employment and early retirement

A particular topic that can be relevant to the study of the careers of older workers is bridge employment which refers to any job or self-employment between retiring from ones career and the moment that a person stops working altogether (Feldman, 1994). The existing retirement schemes are often related to the amount of bridge employment that we can find in a country (Gaillard & Desmette, 2008). In most European countries it is custom to work until the legal retirement age, or until the moment that an employee can benefit from an early retirement scheme. In the Netherlands bridge employment is not common. A possible reason for this is that every employee will pay into private retirement funds. These funds have strict conditions for paying out. A condition for receiving early-retirement payments from these funds is that the employee completely leaves the labor market (Bloemen, 2011). This straightforward way of going from work into retirement does not exist everywhere. In countries like the United States it is not exceptional to retire from the career job and to

continue working in another job for a certain period of time (e.g. Kanfer & Ackerman, 2004, Ulrich & Brott, 2005). Besides bridge employment, some older workers can also choose to leave the active working population. Since the average early retirement age in the Netherlands is around 60 (Otten et al, 2010) early retirement falls outside of the scope of this research, as the sample is aged 45-55.

1.2.3 Research on older employees

Some examples of research on older employees that has been published over the course of the past thirty years or so are the relationship between age and job mobility (Veiga, 1973), age and job performance (Warr, 1993, Ng & Feldman, 2008), age and job opportunities (Hutchens, 1988), age and turnover (Healy et al., 1995, Ng & Feldman, 2008), age and voluntary development activities (Warr & Birdi, 1998), age and personal initiative at work (Warr & Fay, 2001), age and education initiative (Warr & Fay, 2001), age and learning preparedness (Maurer, Weiss & Barbeite, 2003), age as a moderator on the relationship between age discrimination and affective- and continuance commitment (Snape & Redman, 2003), age-related changes in development and work motivation (Kanfer & Ackerman, 2004), the influence of age on the relationship between psychosocial characteristics of the work environment and the motivation to develop (De Lange et al., 2005), age and developmental changes in personal goal orientation (Ebner et al., 2006), age and career aspirations (Pillay et al., 2006), age and wages (Daveri & Maliranta, 2007), age and productivity (Daveri & Maliranta, 2007) age and creativity at work (Binnewies et al., 2008), age and proactive behavior regarding career development (van Veldhoven & Dorenbosch, 2008), age and career opportunities (van Veldhoven & Dorenbosch, 2008) age as a moderator of the relationship between psychosocial work characteristics and indicators of learning related behavior (De Lange et al., 2010), age as a moderator of the relationship between proactive personality and development variables (Bertolino et al., 2011), age and work related motives (Kooij et al., 2011).

Other studies look specifically at the group of older workers and examine a wide range of topics, such as: the relationship between age stereotypes and managements' desirability of starting a retirement procedure (Rosen & Jerdee, 1979), Obstacles for older workers regarding job and career changes (Bailey & Hansson, 1995), individual and organizational issues

regarding older workers in the changing reality for employees and employers (Sterns & Miklos, 1995), the antecedents of career attitudes and intentions of older managers (Herriot et al., 1997), age and self-efficacy for career relevant learning and development (Maurer, 2001), The response of older workers to technological (Friedberg, 2003), the employability of older workers (Patrickson & Ranzijn, 2003), the influence of demotion on the older employees' health, job content satisfaction, and perception of skills and job fit (Josten & Schalk, 2005), the influence of job type on the relationship between age and employability (Nauta et al., 2005), employers' attitudes towards and treatment of older workers (Loretto & White, 2006), the influence of age stereotypes on the ability and willingness of older employees to learn and develop (Maurer, Wrenn & Weiss, 2003), the relationship between organizational and individual factors and the perception of content plateauing by older employees (Armstrong-Stassen, 2008), The effect of early retirement schemes on the participation in development activities of older employees (Fouarge & Schills, 2009), The relationship between burnout and early retirement decisions (Henkens & Leenders, 2010), the mediator role of age stereotypes on the relationship of age discrimination and outcomes (Kring et al., 2011), age discrimination in HR decisions (Weiss & Maurer, 2011), the willingness of participating in training and development during organizational change (Van Vianen et al., 2011).

1.2.4 Age discrimination and stereotypes

1.2.4.1 Ageism

Early definitions of ageism were aimed at older people (e.g. Butler, 1969) but more recent definitions have included all ages (Grima, 2011). Marshall (2007) describes ageism as 'a general term that encompasses differential attitudes and/or behavior based on age designations. It can refer to cultural phenomena that attribute different meanings to different age groups.' The ageist perceptions that exist in a society are likely to exist in organizations as well (Gaillard & Desmette, 2008). Snape & Redman (2003) identified two interconnected dimensions of ageism. The first dimension contains the ageist attitudes, in which we can also find the different age stereotypes. The second dimension refers to discriminatory behavior towards certain age categories, as was described in the previous section. So, although age discrimination is part of the bigger framework of what can be called ageism, ageist attitudes and age discrimination are two distinct constructs (Marshall, 2007). Grima (2011) used the

terms ‘stigmatizing HRM measures’ and ‘negative stereotypes.’ We will therefore present age discrimination and stereotypes separately in the following two sections.

1.2.4.2 Age discrimination

Age discrimination can be aimed at any age group (e.g. Marshall, 2007, Wood et al., 2008). It is possible to discriminate younger employees who just graduated from University, but older employees can also be discriminated against. Roscigno et al. (2007) examined over two thousand verified cases of age discrimination that were filed with the Civil Rights Commission of Ohio and concluded that employees close to 50 years old and approaching the retirement age had the biggest chance of experiencing age discrimination. Although age discrimination usually uses negative images and attitudes towards a certain group, the opposite might also be the case (e.g. Loretto & White, 2006, Gaillard & Desmette, 2008).

In some instances employers might use positive biases regarding older workers, such as having more experience, being reliable, and so on. Krings et al. (2011) found that older workers were considered as being warmer than younger employees. In this section we will discuss age discrimination and in the next section stereotypes that can lead to age discrimination are presented. As there now exists an ever more comprehensive set of measures that make up the (age) discrimination legislation in European and North American countries, age discrimination is no longer something that will be out in the open for everybody to see (Weiss & Maurer, 2001), but will generally be subtle in the form of discouragements or dissuasion (Wood et al., 2008).

In order to assess if there have been changes in the way that older workers are perceived in the workplace, Weiss & Maurer (2001) replicated a study from the 1970’s (Rosen & Jerdee, 1976a) and concluded that students had changed their attitudes and showed far less discrimination towards older workers than the sample of students that participated in the same exercise in 1976. Although they still rated older workers less favourably than younger employees, there was only one out of five scenario in which student showed a significant difference approach between younger and older workers. Weiss & Maurer (2001) discussed several possible reasons for their results and suggested that, in contrast to the 1970’s, society nowadays no longer expects overt discrimination due to more legislation and

jurisprudence, changed societal attitudes because of the changing age pyramid, negative behavior towards specific groups as a result of a more diversity-conscious society and potentially due to the more politically correct behavior shown by management. In the Netherlands there seem to be more policy measures regarding older workers than other minority groups such as disabled employees and women (Peeters et al., 2005).

This does not mean however, that age discrimination no longer exists, as showing politically correct behavior does not mean that someone does not hold stereotypical beliefs and will not act on these beliefs (Marshall, 2007). Roscigno et al. (2007) go as far as to say that it would be naïve to think that legislation and organizational rules and regulations would not leave enough room for discrimination to exist. A study by Loretto & White (2006) concluded that even though a sample of Scottish employers indicated to have incorporated age equality in their policies, their HR practices such as recruitment, training and promotion showed age biases and discrimination.

Age discrimination can have different forms, such as slower progression concerning promotions and salary (Grima, 2011), not giving any opportunities for promotion (Rosen & Jerdee, 1976b, Loretto & White, 2006, Roscigno et al., 2007, Armstrong-Stassen, 2008), barriers to participation in training and/or development opportunities (Rosen and Jerdee, 1976b, Sterns & Miklos, 1995, Maurer, Wrenn & Weiss, 2003, Grima, 2011), giving isolated or short term training but no long-term career development opportunities (Hall & Mirvis, 1995), performance reviews that are influenced by negatively biased views on the performance of older employees and therefore fail to assess the actual performance (Sterns & Miklos, 1995, Snape & Redman, 2003, Ng & Feldman, 2008), not hiring someone (Greller & Simpson, 1999, Loretto & White, 2006, Krings et al., 2011), denying sick leave benefits (Roscigno et al., 2007), pushing employees up to the point that they resign (Roscigno et al., 2007), not providing a challenging job (Armstrong-Stassen, 2008), inviting only the younger job applicant (Krings et al. (2011).

Age discrimination potentially limits job opportunities (Hutchens , 1988) and can have a variety of potential outcomes, such as job content plateauing, which in turn can lead to an intention to leave the company (Armstrong-Stassen, 2008). The perceived risk of experiencing age discrimination after a potential job change can be an obstacle to accept this job change (Bailey & Hansson, 1995). According to several authors (e.g. Snape & Redman,

2003, Grima, 2011) many isolated forms of age discrimination have been studied but research focussing on the consequences of age discrimination on older workers is rather scarce.

Snape & Redman (2003) found that age discrimination is negatively related to affective commitment, that age discrimination towards younger employees is related to lower levels of continuance commitment, that age discrimination towards older employees is related to higher levels of continuance commitment, and that age discrimination leads to stronger intentions of leaving for early retirement amongst older employees. The relationship between age discrimination and higher continuance commitment for older employees might seem odd at first sight, but is actually related to the perceived alternatives on the labor market by this group. As older workers perceive that they have fewer possibilities on the labor market, they will be more inclined to stay with the organization. If they experience age discrimination, this can lead to higher continuance commitment because it confirms their perceptions about the lack of possibilities elsewhere.

1.2.4.3 Stereotypes

In the previous section age discrimination was discussed. Possible antecedents of interactions that can be qualified as age discrimination are the age stereotypes and beliefs on older workers (Greller & Simpson, 1999, Loretto & White, 2006). Krings et al. (2011) defined stereotypes towards older workers as ‘simplifying, generalizing beliefs and experiences about characteristics of older workers based on their age.’

Researchers have identified a variety of stereotypes concerning older employees. Examples are lacking the capacity of younger employees to respond to creative and productive job demands (Rosen & Jerdee, 1976a), no motivation and/or ability to change with the times (Rosen & Jerdee, 1976a, Maurer, Wrenn & Weiss, 2003, Roscigno et al., 2007, Gaillard & Desmette, 2008), older workers have higher absenteeism rates (Warr, 1993, Wood et al.), older employees are too slow, inflexible and/or difficult to train (Warr, 1993, Hall & Mirvis, 1995, van Veldhoven & Dorenbosch, 2008), older workers will undergo mental and/or physical decline as they age (Warr, 1993, Sterns & Miklos, 1995, Nauta et al., 2005, Maurer et al., 2008, Loretto & White, 2006, Roscigno et al., 2007), older workers show less performance and/or productivity than younger employees (Warr, 1993, Maurer et al., 2008), older workers have more accidents (Sterns & Miklos, 1995), the continued investment of

developing older workers is too expensive (Hall & Mirvis, 1995), older employees have less abilities to learn than their younger colleagues (Borghans and Ter Weel, 2002), lack of potential for learning and development (Maurer, Wrenn & Weiss, 2003), older workers are expensive because they will continue to get the same level or even more remuneration (Nauta et al., 2005), the employability will decrease as employees get older (Nauta et al., 2005), older workers are less motivated to participate in learning and development activities (Loretto & White, 2006, Maurer et al., 2008, Kooij et al., 2011), waiting for retirement (Gaillard & Desmette, 2008), absence of a flexible, innovative and/or change orientation (van Veldhoven & Dorenbosch, 2008, Wood et al., 2008), older workers are more expensive to the organization as are younger employees (Peeters & Van Emmerik, 2008).

As stated at the beginning of this section, attitudes towards older employees can also be positive. Loretto & White (2006) used focus groups to identify stereotypes and attitudes towards older workers. Some of the examples that they reported were that older employees have: better interpersonal skills, more patience, and greater willingness to work. According to Krings et al. (2011) the positive stereotypes are part of the framework in which negative stereotypes are also placed. The positive stereotypes regarding older workers are related to social functioning and can be captured by the concept of warmth, whereas the negative stereotypes can be summed up by the concept of competence. Krings et al. state that older workers are perceived as being warmer than younger employees, but that they are seen as less competent at the same time.

Maurer et al. (2008) examined the antecedents of age stereotypes and found that participants, who had experienced behavior by older workers that was consistent with age stereotypes, held more stereotypical beliefs. They argued that observing behavior that corresponds with a certain stereotype of a specific group would usually confirm the stereotype and strengthen the persons' stereotypical belief regarding that group. Loretto & White (2006) reported positive experiences with behavior of older employees by HR managers who had positive attitudes towards hiring older workers, suggesting that observation of behavior works both ways. Maurer et al. (2008) also found that participants that believed that older workers experience a general decline in their abilities reported more stereotypical beliefs concerning the older workers' ability to develop. Stereotypes will be discussed in more detail in paragraph 1.6.

1.3 Relevant social and economic changes

1.3.1 Life expectancy

One of the relevant changes that we see across European and North American countries is the increasing longevity of the population (Nauta et al., 2005, Loretto & White, 2006, Pillay et al., 2006). The predictions for the Netherlands are that the group of over 65 years olds will increase from fifteen percent in 2010 to twenty-five percent in 2035 (Otten et al., 2010). In European countries the average retirement age is around 65, and when people retire from their career, they are not likely to go back to work because of public and private retirement schemes that set specific conditions for receiving payments, and that allow them to maintain a certain level of income.

Besides increased longevity, there is another factor that contributes to the growing group of non-active older people in western societies. European and North American countries have seen lower birthrates after the birth of the Baby Boom generation (e.g. Kanfer & Ackerman, 2004, Loretto & White, 2006, Pillay et al., 2006). This means that there are more people that can be considered old than there are young people. One result of current developments is that there will be a larger group of older people that, through retirement benefits, is dependant on society for a longer period of time (e.g. Otten et al, 2010).

Another consequence of increased longevity is that the older people get, the more care and medical attention will have to be made available for them as well (Nauta et al., 2005). These consequences of an aging population will result in increasing costs for healthcare and retirement benefits for both governments and private organizations, such as retirement funds, which have been announcing in the Dutch press that they are going to lower retirement benefits in the Netherlands for over a year now.

1.3.2 Decline in active working population

Both European countries and the US and Canada will continue to see an increase in the participation of older workers in the active workforce as the shift in the age pyramid cannot be considered being a temporary one (Nauta et al., 2005). The biggest cohort of the

working population in the US in 2005 was aged 40-44 (International Labor Organization, 2005). Over the course of the next 25 years the percentage of older Dutch employees above the age of 45 will increase to around 40% of the active working population (Nauta et al., 2005). In 2010, more than half of the United States working population was between 40 and 75 years old (NG & Feldman, 2010).

There are several reasons for the increase in older workers on the labor markets of western economies, such as: shrinkage of the overall workforce (van Veldhoven & Dorenbosch, 2008), aging of the baby boom generation (e.g. Kanfer & Ackerman, 2004, Ulrich & Brott, 2005, Nauta et al., 2005, De Lange et al., 2005,), lower birthrates (e.g. Kanfer & Ackerman, 2004, Loretto & White, 2006, Pillay et al., 2006), young people entering the labor market at older ages than before due to more years spent studying (De Lange et al., 2005). Otten et al. (2010) reported that the participation of Dutch employees aged 50-65 increased from 40% in 1996 to 55% in 2008.

Although the participation of older workers as part of the active working population is said to increase considerably over the coming years, this has not always been the case in recent years. A number of recent studies have reported that participation rates of older workers were lower than those of the rest of the active population (e.g. Loretto & White, 2006). It is however difficult to use data from as recent as 6 years ago, or to project the situation in one country onto another, as reforms and legislation is changing rapidly and are different in every country. An example is the European Union, where each member state is obligated to adhere to the minimum protection of employees that is part of European labor law.

The trends in a lot of countries are to reduce or stop early retirement schemes and to push the legal retirement age back (De Lange et al., 2010). But every member state can organize its retirement system every which way it seems fit, as long as it does not go against European legislation. The result is that there is no one European retirement regulation and it is therefore very difficult to use data regarding participation of older workers from one European country to describe the situation in another EU member state.

1.3.3 Changes in legislation

1.3.3.1 Changes regarding retirement age

The Dutch retirement system is constructed in such a way that employees receive 70% of the legal minimum wage from the government and the rest is paid out by a company or sector private retirement fund to which the employee contributes automatically during their entire career. The participation is mandatory and contributions are collected through the employer who withholds and pays a percentage of the salary to the private retirement fund. In 2010 the Dutch government decided that the legal age for the state retirement benefits is to be gradually raised to the age of 67 over the coming years. Besides the raising of the legal retirement age, the Dutch government is also trying to prevent older workers to leave the labor market by means of early retirement, through new policies that are being put in place, such as the Early Retirement, Pre-pension and Life-course Savings Scheme Act (VPL) of 2006, that aims to make early retirement financially less attractive for employers and employees (Henkens & Leenders, 2010).

Early retirement is a private affair in the Netherlands. Most companies or sectors have schemes in place that allow employees to retire early when they are eligible. In general employees are eligible for early retirement when they are aged 57-62, have a job tenure that exceeds 10 years, and will leave the labor market altogether at the moment that the early retirement scheme will start paying out (Bloemen, 2011). Although initiatives to dissuade employees from using the early retirement schemes have resulted in legislation, it is not yet clear how many older employees will forfeit on early retirement and will keep working until the legal retirement age. The average retirement age for Dutch employees in 2007 was 62, which was one year later than the period before the new policy regarding early retirement was put into place (Otten et al, 2010).

Otten et al. did report that there was a significant change in people leaving on early retirement before the age of 60, which dropped from 18000 a year in the period 2004-2006 to 8000 for 2007. According to Otten et al. (2010) 6 out of 10 employees did not want to continue working until the age of 65. The Centraal Bureau voor de Statistiek (CBS), TNO, and the Dutch Ministry of Social Affairs and Employment published a report in which they

asked different age group if they wanted to continue working until the age of 65. The results for the age group 45-55 are presented in the table below.

<i>Year</i>	<i>Yes</i>	<i>No</i>	<i>Don't know</i>
2005	21%	48%	31%
2006	27%	43%	30%
2007	34%	40%	26%
2008	36%	35%	29%
2009	42%	33%	25%
2010	44%	29%	27%

Table 1.1 Do you want to continue working until your 65th? (Koppes et al., 2011)

Although the age group of 45-55 years old shows the same pattern and shift in pattern as the total sample, there was a difference in the percentage of people answering no. The group 45-55 scored about 8 percent higher in 2005, and although this gap was reduced by 2010, there was still a 4% difference between the group and the rest of the sample. While in European countries governments and representative bodies of both employers and employees have been negotiating about reducing early retirement schemes and pushing back the legal retirement age (e.g. De Lange et al, 2005, Gaillard & Desmette, 2008), economic reasons have been identified as one of the discouragements for employees in the US to go on retirement (Kanfer & Ackerman, 2004). Although financial reasons can be a reason for Dutch employees not to opt for an early retirement scheme (e.g. Henkens & Leenders, 2010, Bloemen, 2011), it seems that the reality for US employees is often different, forcing them to work well into retirement. Literature shows that many US employees take up another job after retiring from their career job, in order to make ends meet (e.g. Feldman, 1994, Kanfer & Ackerman, 2004).

1.3.3.2 Other legal aspects

Older workers can leave the labor pool through early retirement, unemployment, and disability. In the past the rules for disability were not always strictly applied and a number of older employees were declared disabled for work in order to get around possible problems with early retirement or getting unemployment benefits (Bloemen, 2011). Since 2002 new

legislation has been put into place to prevent older employees to fall into the disabled category until they reach the formal retirement age. One of these initiatives is a law called Wet Verbetering Poortwachter. Under this new law both employers and employees have to be very active in finding reintegration alternatives.

Unemployment benefits might also be an alternative for early retirement. Dutch unemployment benefits are 70% of the last earned salary and older employees can be entitled to up to 36 months of benefits. As the number of older unemployed workers finding a new job is very low (Bloemen, 2011, De Vries, 2012), it is not exceptional that if a 63-64 year old employee becomes unemployed, this person will continue receiving unemployment benefits up till the legal retirement age. Corpeleijn (2009) reported that only 7% of Dutch employees aged 60 and up that lost their job in 2003 had found a new job two years later.

Results published in 2012 by the CBS, which is the Dutch statistical bureau, show that only 15% of the unemployed workers aged 45-65 was able to find a job in the second quarter (De Vries, 2012). Although every employee is protected from unlawful termination of the employment contract, economical lay-offs are possible. The strict legislative climate regarding sick and disabled employees and the employment protection of employees that prevents them from getting fired has consequences. If employers cannot terminate employment contracts when people are not functioning as expected, it is to be expected that the employer will look for other solutions.

One of these possible solutions is demotion, which entails a downward hierarchical move. Where demotion was considered to be a taboo in the work environment before, it is becoming more and more common practice (West et al., 1990) and is considered to be part of an age-conscious HR policy (Josten & Schalk, 2005).

1.3.4 Organizational and economic changes

The last few decades have seen enormous changes in the field of technology, such as PC's, the Internet and telecommunication (Sterns & Miklos, 1995, Borghans & Ter Weel, 2002), which puts an ever-increasing pressure on organizations to be flexible (Hall, 1996, Van den Berg & Van der Velde, 2005) and to change traditional roles (Herriot et al., 1997), and on

employees to keep updating their skills and competences (e.g. Warr & Birdi, 1998). These technological and other advances can have a different impact on older workers than for younger employees (Friedberg, 2003). Older workers can no longer rely on previous experiences, because the changes have made certain skills and knowledge obsolete. This means that older workers will have to compete with younger workers, although they have the disadvantage of lacking the latest skills and knowledge that younger people have. Technological advancement and the resulting job related changes are therefore likely to be perceived as a threat by older workers (Bailey & Hansson, 1995).

During the last decades we have also seen a shift from lifelong employment towards new career concepts with the emphasis on employability, marked by frequent movements (e.g. Hall & Mirvis, 1995, Warr & Birdi, 1998, Baruch, 2006). These changes have taken place in a time that organizations have had to reorganize, change towards flatter organizations through downsizing (Hall, 1996, Ostroff & Clark, 2001, Van Vianen, 2007), and had to resort to mass lay-offs (Sterns & Miklos, 1995). Nowadays employees need to be prepared for unannounced involuntary career changes throughout the duration of their careers (Bailey & Hansson, 1995), and in order to stay employable on the labor market they need to develop themselves (Herriot et al., 1997) so as to prevent human capital obsolescence (Van Dalen et al., 2008). These new career concepts emerged as large organizations started to reorganise in the 1980's in order to remain profitable (Baruch, 2006). Although reorganizations and lay-off have been present in the media since the beginning of the financial crisis in 2008, it is not something new.

Outside pressures because of globalization and economic forces (Ostroff & Clark, 2001) have been around for decades. The beginning of the nineteen eighties saw economic problems in European countries. Nicholson & West (1988) reported that a survey that they conducted in 1983 showed that of a sample of 1364 British managers only 9% had never changed employers. There have been discussions about the differences in the new concepts such as the boundaryless careers that are used by researchers and the real situation in organizations, and it seems that some of the literature might be off when it is compared with empirical evidence (Baruch, 2006, Van Vianen, 2007). Even though there is a lot of talk about older workers and increased employability, there are also indications that go against this view.

Herriot et al. (1997) suggested that there are fewer possibilities for internal moves in the organizations that have removed hierarchical levels and sold or reorganized departments during downsizing. Besides the lowered number of moves within organizations, there have been reports that show that especially older workers seem to have difficult times on the labor market (e.g. Van Dalen et al., 2008). Although outside of the scope of this study, the statistics for the age group 55-64 show that the unemployment went up from 36,4% in 1999, to 45,2% in 2004, and finally 55,1% in 2009 (Eurostat, 2011). When older employees lose their job, they are more likely to spend more time being unemployed and looking for work than younger employees (e.g. Hutchens, 1988, Patrickson & Ranzijn, 2003, Snape & Redman, 2003, Wood et al., 2008, Corpeleijn, 2009, Grima, 2011).

Corpeleijn (2009) reported that in the period 2003-2004, one out of three unemployed people over 50 had found a new job after 12 months, compared to two out of three for the under 50 year olds. Since the beginning of the economic crisis in 2008 a lot of older Dutch employees have lost their jobs. The number of unemployed workers in the age group 45-65 grew from 93.000 in the third quarter of 2008 to 173.000 in the same quarter of 2012 (De Vries, 2012). A recent report on the unemployment trends in the Netherlands (Centraal Bureau voor de Statistiek, 2012) showed that older workers represented the largest portion of employees that recently became unemployed.

Another aspect of the obstacles in changes in viewing the importance of getting older workers more employable is that organizations are not necessarily moving with the times. Older workers are potentially experiencing stereotype-based age discrimination in recruitment, as was reported in a Swiss study by Krings et al. (2011). However, age discrimination was categorized as being only part of the problem for older workers when applying for jobs in an Australian study (Patrickson & Ranzijn, 2003). The authors concluded that older workers seemed to ignore the changes in job seeking behavior that have taken place since they last applied for a job. A third reason suggested by Patrickson and Ranzijn was the extent of age incongruence between the older job applicant and the recruiter. When the difference was smaller, the older job applicant seemed to receive a better evaluation from the recruiter.

1.4 Decisions during late career

An older employee can make different career decisions. In this paragraph we will focus on mobility-related career decisions. Mobility is a relevant variable because employability can be measured through moving in between positions and by investing in training and education (e.g. Van Dam et al., 2006). If we want to have a better understanding about the employability intentions of older workers we can therefore study their mobility intentions.

1.4.1 Career transitions

1.4.1.1 Types of career transitions

During the course of a career an employee can make certain career related decisions. Most of these decisions will entail a transition from one situation to another. In this paragraph we present the reader a number of concepts and ideas that have been suggested when studying career decisions. In this section we will present a number of general concepts, while in section 1.4.3 we will present concepts that are more focused on job mobility. These concepts or frameworks are related, but as we consider that the emphasis of the concepts presented in this section are not necessarily on organizational mobility, we choose to discuss them separately. This does not mean however that these concepts are describing different variables or ideas, as some variables appear in all of them.

Louis (1980) created a framework, which was meant to be a catalogue of all possible transitions that an individual can go through during their career. Louis defined career transition as ‘the period during which an individual is either changing roles (taking on a different objective role) or changing orientation to a role already held (altering a subjective state).’ Louis opted for a broad conceptualization of a career as she included both work and non-work roles. The nine career transitions in this framework are divided in two categories, interrole and intrarole transitions.

<i>Interrole transitions</i>	<i>Intrarole transitions</i>
Entry/re-entry	Intrarole adjustment
Intracompany	Extrarole adjustment
Intercompany	Role/career-stage transition
Interprofession	Life-stage transition
Exit	

Table 1.2 The different career transitions identified by Louis (1980)

Interrole transitions refer to the change from one role to another one. This can be a transition from outside of the active working population to work, a transition within the company, a move in between companies or leaving the active population. Louis identified five interrole transitions. These are entry/re-entry (people that were not active on the labor market that either start or get back to work), intracompany (employees that move from one job to another within the same organization), intercompany (employee leaving the current employer to go work in another job for another organization), interprofession (people moving in between professions, like a professional football player taking up a job as a trainer), and exit (leaving the active population due to a variety of reasons, such as becoming unemployed after getting fired, taking a leave of absence or retirement).

Intrarole transitions refer to changes in orientation but in the context of the old role. According to Louis there is a distinctive difference between inter- and intrarole transitions. Interrole transitions are clear to the individual, whereas intrarole transitions can be subtle and do not necessarily represent a conscious choice by the person concerned. Louis listed four intrarole transitions in her framework: intrarole adjustment (these represent changes in perceptions of the individual that may influence the role fulfilment), extrarole adjustment (this transition refers to the impact of outside changes on the role fulfilment, such as becoming a parent, starting new time- and energy consuming activities besides the work role), role/career-stage transition (as one moves through the career stages their orientation within existing roles might gradually change, without these changes being distinctive), and life-stage transition (the life-stage of a person may influence the orientation of that person in regard to their role; an older worker experiencing career plateauing can be less helpful towards colleagues than an older worker who perceives his/her career as continuing to be challenging).

1.4.1.2 Why do employees choose or refuse a career transition

There are a variety of reasons for people to choose for a specific career transition. The goal of a career transition might be getting a promotion, more salary or more responsibility. People who are not satisfied might be more inclined to change jobs (Van Vianen, 2007). Murrell et al. (1996) studied the impact of mobility strategies on career outcomes and identified the following variables to measure career mobility: lateral transfers, company changes, personal leaves, part-time work, unemployment, and job changes. Murrell et al. concluded that for their sample of MBA graduates, that recurring lateral movements positively predicted promotions, but that these same moves also had a negative relationship with the evolution of that employees' salary, and work related attitudes.

Van Vianen (2007) reported that Dutch research examining the relationship between Big Five personality characteristics and willingness to change jobs did not show differences between the group of participants that regularly changed jobs, and the groups that changed jobs less often. Employees can also perceive obstacles that might prevent them from accepting a job change. These obstacles can be job related, like task difficulty, career disruption, and uncertainty about the situation after the job change (Bailey & Hansson, 1995). Task difficulty refers to the amount of time an employee will have to invest on training and development in order to be able to make the job change. Career disruption is the extent to which employees feel that they will breach with their old career. When there is a high level of perceived career disruption, the employee will feel that he or she will have to start all over again. Uncertainty refers to the extent to which the employee is unable to have a clear image of what is going to happen after the job change.

Obstacles might also be related to demographic variables of the employee, like age, education, or to the personal life of the employee, such as family and community concerns (e.g. Ostroff & Clark, 2001). Van Vianen (2007) reported on Dutch research that showed that employees who needed structure and stability in their job would go longer without a job change than employees who did not have this need. Gould & Penley (1985) used a distinction between time-based variables (such as age, total time in job, and total time in a community) and situational variables (like remuneration, and the employment status of the spouse) to make a distinction between the categories of variables that possibly influence the willingness to accept a geographical move.

1.4.2 Actual decisions and intentions to take decisions

Herriot et al. (1997) described intentions as the employees' 'ratings of the probability of their accepting various career options if their organization offered them tomorrow.' Intentions are studied on a regular basis. One can study the actual career decisions of a sample over a specific period. Depending on the research model that is opted for, the researcher will use a cross-sectional or longitudinal study. When a longitudinal study is not possible and the researcher will opt for a cross-sectional study, then one cannot necessarily measure antecedents and outcomes at the same time. One possibility the researcher has, is to measure the intentions to take certain decisions rather than measure the decisions that were made at a later date. Herriot et al. (1997) identified five career intentions of which one was development related and the others job change related. These career intentions were aimed at the employees' willingness to accept: "shift" (lateral moves), "help" (help with their career), "bigger" (more responsibility and excitement), "promotion" (upward moves but rejecting downward moves), and "contract" (exiting the company or switching to part-time work). Intentions or willingness predict actual decisions, such as relocation decisions (Noe & Barber, 1993).

1.4.3 Possible mobility strategies

1.4.3.1 Defining mobility

The concept of mobility is part of the larger framework of career transitions that was presented in the first section of this paragraph. There is however also a distinction between the two. Career transitions can entail leaving and re-entering the labor market (Louis, 1980), whereas mobility is applied to situations in which an employee moves from one work setting to another, either within the organization or elsewhere (Ng et al., 2007), or as Vardi (1980) defined mobility: 'the movement employees experience among organizational roles. This means that the concepts in this section only focus on mobility in an organizational context. According to Veiga (1983) the two most common conceptualizations of career mobility are the willingness to accept a mobility opportunity and the rate of movement. There are different types of mobility.

Veiga (1973) suggested a framework with three types of mobility: (1) inter-, (2) intra-organizational, and (3) geographical mobility, but stated that geographical mobility could occur both within and outside of the current organization. Geographical mobility does however include the dimension of general adjustment outside of the workplace for the employee and his/her family, which is not necessarily the case in either inter- or intra-organizational mobility (Eby & Dematteo, 2000).

The distinction between inter- or intra-organizational mobility (e.g. Louis, 1980, Nicholson & west, 1988, Ng et al., 2007) is often used to make a distinction between different groups of mobility options for employees. Inter-organizational mobility combines all the mobility options at another employer, whereas intra-organizational mobility refers to possible moves with the current employer. A difference between inter- and intra-organizational mobility is that intra-organizational mobility is based on the organizations' needs and that inter-organizational mobility is based on the employees' needs (Veiga, 1973).

Because inter- and intra-organizational mobility refer to the same mobility opportunities, where only the context of the employing organization is different, definitions of intra-organizational mobility can be used to describe the specific mobility opportunities of both concepts. Vardi (1980) uses the term organizational career mobility and describes it as: 'all actual intraorganizational job mobility experienced by members, and the perceptions, attitudes, and behaviors associated with these experiences.' According to Noe et al. (1988) intra-organizational mobility can exist of: lateral transfers with or without relocation, which permit the employee to continue in a job comparable to the previous one at the same hierarchical level, and hierarchical moves.

Ostroff & Clark (2001) added moving to another job or discipline to this list, although changing jobs or discipline could be placed within the framework of lateral and hierarchical moves in the form of promotion or demotion. A demotion is a downward move such as a change from a managerial function towards a non-managerial function. Managerial careers are no longer assumed to only see lateral and upward moves and demotion is no longer an exception (West et al., 1990). It is the mobility opportunity that is least popular (Eby & Dematteo, 2000). According to West et al. (1990) demotion has a negative impact on psychological adjustment to the new job due to perceived loss in development opportunities and growth. Josten & Schalk (2005) reported several possible perceived negative outcomes of

a demotion for employees: a decline in status within the work environment, a less important job, and a less challenging job.

1.4.3.2 Mobility concepts

When studying mobility, several levels of mobility can be examined. One can study the actual mobility opportunities or can examine the bigger process of which the mobility opportunity is an antecedent or an outcome variable. Vardi (1980) proposed an integrative model to study mobility patterns. She identified individual and organizational level characteristics that were divided in four categories: (1) environmental variables (such as labor market, legal constraints, skill demands, culture), (2) contextual determinants (like organizational size and structure, age and degrees), (3) moderating process variables (e.g. the organization's mobility policy or the employees' attitudes towards, and (4) perceptions of mobility), and the mobility indices (amount, rate, direction, and initiator of mobility) that acted as dependent variables in the model. The model was not meant to be exhaustive but to capture key variables that are involved in the process of which organizational career mobility is the outcome variable.

Another theoretical paper by Ng, et al (2007) proposed a model that makes a distinction between a macro level factor (society, region, industry, organization level) and two micro level factors (individual level). By using these levels of analysis, structural factors that offer mobility opportunities, individual differences that shape preferences, and decisional factors like willingness to accept a job change can be identified as antecedents for job mobility.

Ng et al. conceptualized the process of job mobility as a state of career equilibrium that gets distorted by the different categories of antecedent factors. The resulting disequilibrium will ultimately lead to a job change. After this job change the employee will need to adapt to the new situation, after which the employee will again perceive career equilibrium. According to the authors an employee will go through this process multiple times during his/her career.

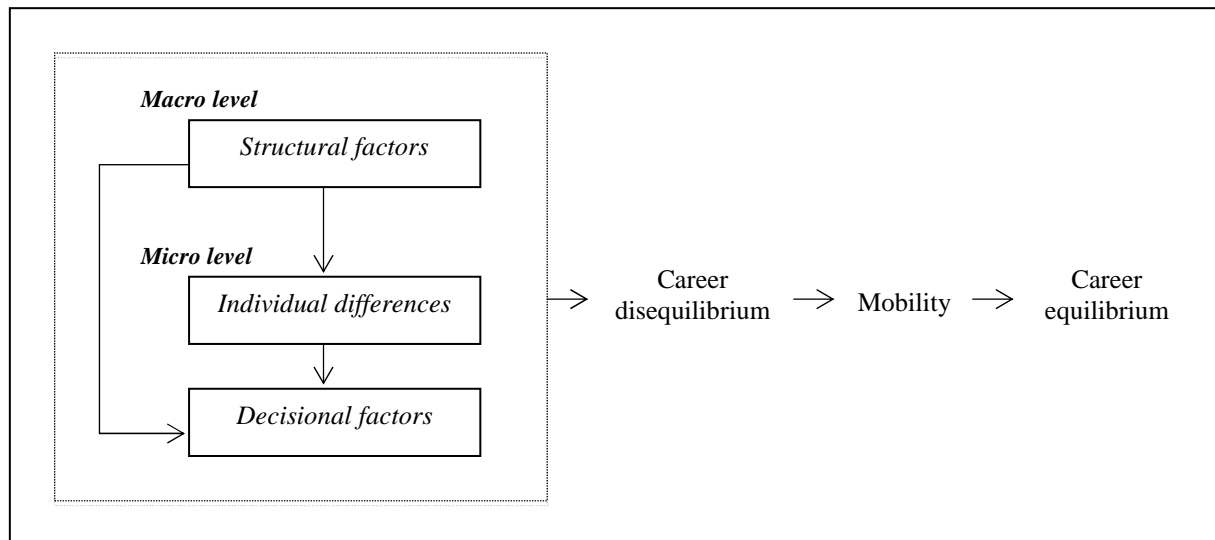


Figure 1.1 Process of job mobility proposed by Ng et al. (2007)

On a more detailed level of study, Nicholson & West (1988) suggested a framework that captures the different mobility possibilities that employees have and defined twelve types of moves that an employee can make. Nicholson and West defined job change as: ‘any move between jobs or any major alternation to the content of your work duties and activities. This means we would like you to include among “job changes” times when there has been a major change in the content of your job whilst you were still in the same post (e.g. major work reorganizations, giving you new duties).’ The original framework has three mobility dimensions that measured different types of job mobility. The dimensions are (1) status, (2) function and (3) employer. The status dimension examines the possible changes in status that go hand in hand with a mobility strategy. Status can go upwards, downwards or stay at the same level. The function that someone has does not necessarily change. The employer dimension refers to the fact if the mobility strategy leads to a change of employer or not.

Ng et al. (2007) used only two dimensions because they suggest that functional changes might occur for both status and employer changes. The twelve types of job mobility that were identified by Nicholson & West (1988) are: (1) in-spiralling (upward functional change with the same employer), (2) out-spiralling (upward functional change with another employer), (3) in-lateral (functional change at the same level with the current employer), (4) promotion (upward change in the same function with the current employer), (5) out and up (upward change in the same function with another employer), (6) out-lateral (functional change at the same level with another employer), (7) drop-out shift (downward functional change with another employer), (8) out-transfer (job change in the same function at the same

level with another employer), (9) job reorder (job change in the same function at the same level with the current employer), (10) drop shift (upward functional change with the same employer), (11) out-demotion (downward change in the same function with another employer), and (12) in-demotion (downward change in the same function with the current employer).

1.4.3.3 Willingness and obstacles regarding mobility

Noe et al. (1988) studied the relationship between a number of factors, such as employee characteristics, job tenure and perceptions of development opportunities on the willingness to accept four intra-organizational mobility opportunities: promotion requiring relocation, lateral moves requiring relocation, lateral moves not requiring relocation, and demotion. They found that some factors were significantly related to the willingness to accept certain mobility opportunities, but not to others, suggesting that each mobility opportunity needs to be examined separately. A negative relationship was found between job satisfaction and the willingness to accept mobility opportunities, which lead Noe et al. to suggest that organizations must place job mobility in policy frameworks that allow employees to compensate for possible losses that might occur by opting for a job change. Noe & Barber (1993) identified the dissimilarities between the current and future communities as an obstacle for employees to accept a job change that involved moving to another city. Ostroff & Clark (2001) studied the relationship between four kinds of antecedent factors and willingness to accept different kinds of intra-organizational mobility of a random sample of US employees.

These factors were (1) demographic variables, (2) moving concerns, (3) job-related needs and desires, and (4) attitudes. Ostroff and Clark reported that there were differences between sets of factors and the willingness for specific possibilities of intra-organizational mobility, and concluded that different factors might be more or less important for willingness to accept, depending on the mobility opportunity in question. Their general findings were that employees tend to be more willing to accept promotions compared to lateral moves and are more inclined to accept a job change in the same field, than to choose a job change that implies a career change. Employees were also more willing to accept the opportunities without relocation compared to job changes that required moving to a new location. The participants preferred Job changes that were perceived to have more benefits than costs. Ng et

al. (2007) suggested that accepting a mobility option might be related to the type of personality, career interests, personal values, and attachment style.

1.4.4 Research on mobility decisions during late career

1.4.4.1 Career opportunities for older workers

Although there are different career decisions that an employee can make, the general view is that the number of job opportunities will decline, as people get older (e.g. Veiga, 1973, Hutchens, 1988, Murrell et al., 1996, Ostroff & Clark 2001). The absence of opportunities to grow has been identified as a potential cause for burnout among Dutch older workers (Henkens & Leenders, 2010). Even though there is extensive literature on the consequences of the absence of opportunities for older workers, this section will present research findings regarding actual job change and career mobility of older workers. There is a lack of knowledge concerning the willingness of older employees to undertake comprehensive intra-organizational job changes Mignonac (2008).

Sterns & Alexander (1987) reviewed the issues relating to industrial gerontology by emphasizing the decisions of workers throughout the lifespan, concluding that career decisions are not limited to a specific chronological age or career stage. This would suggest that age or career stage alone is not enough to determine what people want or how they will react to mobility opportunities. The heterogeneity of the group of older workers (Baltes et al., 1980) was discussed in paragraph 1.2.

1.4.4.2 Career intentions of older workers

Actual mobility patterns are not always examined due to a number of reasons, such as time restrictions or difficulties of gaining access to the research terrain. The result is that there is a body of research examining the intentions regarding mobility opportunities or the willingness of accepting an intra- or inter-organizational move. The willingness to make a move is one of the most common conceptualizations of career mobility (Veiga, 1983). We will present findings from a number of these studies that examined the intentions of older

workers. Veiga (1973) proposed a mobility framework, based on a study of a sample of American managers, with the dimensions intra-, interorganizational, and geographical moves and concluded that participants reported most intraorganizational moves between the ages of 38 and 54, geographical moves in the age group 42-54 years old, and interorganizational moves was most likely between the ages of 41 and 48.

Veiga suggested that the manager in these age ranges is more likely to be willing to accept a mobility opportunity because of perceived confidence by the company in the managers' capabilities, the fact that most participants in this group no longer had children at home, and that people past forty can go through periods in which they reassess where they want to go with their career and what they want to be doing in their job. This might lead to a job or career change. Noe et al. (1988) found that the participants up till the age of 44 from their sample of US government employees were more willing to accept mobility opportunities than participants aged 45 and up.

Schalk & Schouten (1995) examined career intentions of 178 Dutch employees between the ages of 45 and 55. Almost half of their sample had a higher vocational or a university degree. Early retirement still existed in the Netherlands in 1995, and 63% of the respondents wanted to use the early retirement schemes that were available to them. When asked if they expected that they would continue working until the legal retirement age, 77% of the participants did not agree. The study by Schalk & Schouten reported on a number of wishes and expectations regarding the career aspects promotion, job change, change employers, and to keep working in the current job.

The outcomes of the study show that 37,7% of the respondents agreed or strongly agreed that they wanted a promotion, and 24,4% wanted to change jobs. The percentage of people wanting to stay in their current job was 42,6% and only 9,1% wanted to work for another employer. This indicates that even though employees would like to have a promotion, that the majority of this sample did not want to change jobs and even less wanted to change employers. Ostroff & Clark (2001) found that the willingness to accept promotions, compared to other mobility opportunities, is less influenced by demographic factors, such as age, as it is desirable to the majority of employees.

Herriot et al. (1997) reported comparable findings regarding their UK sample of managers from the finance sector, who were very keen on taking on more responsibilities and accepting a promotion, but were not prepared to leave the organization. The study by Murrell et al. (1996), which was discussed in the previous section, did not examine older employees. The authors did however speculate on the potential use of mobility strategies by older workers and suggested that this group might be less inclined to move in between jobs and companies because of potential negative outcomes, such as the perception that they are moving around due to low commitment to their careers and/or poor performance on the job.

Another potential negative outcome suggested by Murrell et al. was the cost in terms of work-life balance that older workers might perceive as too high. They spoke of higher costs to the family life of older workers. The idea is that job changes might disturb the balance between the employees' professional and private life. The work-life balance is often seen as more important for employees in their mid career, although empirical research has shown that satisfaction about the work-life balance does not have to be dependant on age in relation to willingness to change companies for specific jobs (e.g. Finegold et al., 2002).

The concept of the costs attributed to a job change was also mentioned by Veiga (1983) who identified the older workers' ties to their children and their community as major obstacles to job mobility. Gould & Penley (1985) reported a negative relationship between age, and the time that participants had lived in one place and the willingness to relocate. They also reported that the total time in the current job, participants from dual career couples, and high remuneration were positively related to the willingness to move geographically. Noe et al. (1988) found a negative relationship between the number of years that someone had lived in a community and the willingness to accept lateral moves that required relocation. Noe et al. suggested that older employees would be less willing to accept possibilities for mobility, especially when moving is concerned, due to family and community involvement. Ostroff & Clark (2001) reported that, compared to younger employees, older employees were more willing to accept lateral moves that did not involve moving to another location.

A more recent study that examined older managerial employees in a French sample (Mignonac, 2008) found that this group preferred changes in discipline to either domestic relocation or international assignments. This finding is along the same line of reasoning as the previous studies as moving within or outside of the country is likely to put more pressure on

family life and the existing work-life balance, than a job change with all other variables staying the same. Although these empirical studies suggest that older workers have strong ties and will therefore be less motivated to accept certain job changes, there do exist other views on older workers.

This group of employees is also seen as being more flexible and autonomous because their children are no longer at school and because they have had an evolution regarding their internal drives (Hall & Mirvis, 1995). Feldman & Ng (2007) suggested that older workers might be more inclined to chose for job changes with the current employer because this will permit them to use the skills and experience that they already have, whereas a move to a new employer would demand more of their fluid intellectual abilities (Kanfer & Ackerman, 2004). Finegold et al. (2002) examined the influence of age on the relationship between several antecedent factors and the willingness to accept a job at another company of a sample of technical workers in the United States. They found several significant differences between age groups, but stated that the size of the age effect was small. The differences between age groups were the stronger positive relationship for younger employees between the fulfilment of skill development needs and the level of individual performance related pay with willingness to accept a job elsewhere, and the stronger negative relationship for younger participants between satisfaction about the work-life balance and willingness to accept an employer change.

Van den Berg & Van der Velde (2005) studied the relationship between a number of individual and work factors and functional flexibility in a large Dutch transport company. They used a scale they called willingness to be flexible that consisted of four items, measuring the willingness of participants regarding job change within the organization, combining several jobs, working in different geographical locations, and investing in development for a future job. Although the last item could also qualify as a development activity, the scale measures willingness to be flexible in one's role. Van den Berg and Van der Velde reported that age was negatively related to the willingness to be flexible, and that workers scored lower than managers and support staff.

Mignonac (2008) studied the relationship of individual and work and non-work factors on the willingness of accepting a set of organizational career changes by a group of French managers over 50 years old. The career changes examined were: change of field, domestic

relocation and international assignment. Like previous studies (e.g. Noe et al, 1988, Ostroff & Clark, 2001) Mignonac found different results, depending on the type of mobility opportunity. The results of this study showed positive relationships between openness to experience and all mobility opportunities. Negative relationships were found between job satisfaction, perceived lack of alternatives, perceived high sacrifices, company tenure and change of field. Mignonac did not find a relationship between perceived organizational support and any of the job changes. Besides measuring the variables that have an influence on the willingness to accept a job change one can also measure obstacles to job changes.

Bailey & Hansson (1995) developed a three-factor scale that measures (1) age-inappropriateness, (2) concerns about age discrimination, and (3) skill obsolescence as categories of obstacles to job change for older workers. Age-inappropriateness refers to the extent to which an older employee would feel out of place in a certain job change situation. The second category, age discrimination, measures potential discriminatory outcomes because of the employees' age. The final category refers to the possibility that the older workers' skills and knowledge become obsolete after the job change. The instrument developed by Bailey and Hansson, called the ARR scale, was related to more negative attitudes regarding job or career change at the time of measurement. Tenure, age, the amount of years that the participant was above the by the participant perceived normative age for their present job, and marital status were positively related with scores on the ARR scale. Health, instrumental competence, attitude towards aging, time left until retirement, salary and number of job changes in the 10 years prior to measurement were all negatively related to the ARR scale scores.

1.4.4.3 Research on mobility of older Dutch workers

Josten & Schalk (2005) studied the effects of demotion on older workers in the Dutch healthcare sector. They compared levels of exhaustion, fit of knowledge and skills with the job, and satisfaction with the job contents of employees that did not move, experienced a lateral move, or that were demoted. Josten and Schalk found that older workers who had undergone a lateral move or that had been demoted reported more exhaustion before the move than employees who did not undergo a job change. However, the levels of exhaustion only decreased for people after a lateral move, and did not change for those employees who had a

demotion. The employees that underwent a lateral move reported no significant differences with the situation before the move, regarding both satisfaction with the contents of the job and the fit between the job and their skills. The results for the fit between skills and the job showed that one out of three employees reported that they were overqualified for the new job after demotion. Employees also reported being less satisfied with the job contents after a demotion. Besides the willingness of the employer to offer job mobility opportunities to older workers, and the willingness of older workers to accept a certain job changes, there is also the subject of how well older workers will be able to adapt to other functions within the organization.

Josten & Schalk (2010) studied a sample of younger and older Dutch employees and reported that older workers indicated less exhaustion after a downward and lateral move, only if this move involved a change to a physically less demanding job. Although lateral moves were perceived, by the older participants, as being less negative than downward moves, both led to a lower job satisfaction than before the move. The only move that had a positive effect on job satisfaction was the upward move, although the increase in job satisfaction was stronger for the younger than for the older participants.

Nauta et al. (2005) examined the influence of the type of job on the relationship between age and employability for a diverse sample in the Netherlands. They concluded that the perceived productivity and employability regarding one's own functional area would increase with age. Nauta et al. did however report a negative relationship between age and the perceived employability towards other functions. The type of job that someone has before the move does moderate the relationship. Employees that work in generic jobs with a lot of changing conditions that demand creativity and developmental investments perceive less problems regarding a move to another functional field, than people that have a highly specialized job.

Although the emphasis in this paragraph is on work related job changes, there have been studies that examined another mobility opportunity that is unique for the group of older workers; early retirement. Henkens and Leenders (2010) studied the relationship between burnout and the intention to go on early retirement of a sample of Dutch employees, aged 55 and older. They found that exhaustion and detachment from the work environment were positively related to the intention to retire early. Besides job related factors, non-work related

factors influence the intention to go on early retirement. Henkens and Leenders found a positive relationship between the amount of activities undertaken with the spouse and the intention to retire early.

1.5 Career development intentions

The concept of employability intentions in the changing context of the Dutch retirement context was presented in the introduction. After the mobility-related intentions that were presented in the previous paragraph we will now present development-related intentions. Development intentions are relevant because employability can be measured through mobility and by investing in training and education (e.g. Van Dam et al., 2006).

1.5.1 Development and training

Development and training are often used interchangeably, but are two distinct constructs (e.g. Birdi et al., 1997, Noe et al., 1997). Birdi et al. (1997) describe training as ‘organized efforts to assist learning through instruction.’ Noe et al. (1997) define training as ‘a planned effort by a company to facilitate the learning of specific knowledge, skills, or behaviors that employees need to be successful in their current job.’ According to Noe et al. (1997) development opportunities are less aimed at acquiring and/or developing skills in the actual job, and more aimed at acquiring and developing skills that can be used in the wider career framework and therefore go beyond the core competences of the job description.

1.5.2 Development activities

1.5.2.1 Defining development activities

Noe et al. (1997) defined development activities with the help of five different dimensions: voluntary versus involuntary, informal versus formal, current versus future orientated, incremental versus framebreaking, introspective versus interactive. (1) *Voluntary versus involuntary*. Development activities might be prescribed by the organization. When development activities are mandatory, its contents, duration, etc. are often predetermined by

organizational policies, or external criteria, such as certain requirements for a specific license that is necessary in order to operate a certain machine, or in a specific environment. It is however also possible that an employee applies for a development activity out of genuine interest.

(2) *Informal versus formal.* Some development activities are sponsored by the organization. These are the formal development activities and are aimed at acquiring specific knowledge and/or competences. Informal development activities are not sponsored by the organization and are not specifically developed to acquire a specific job-related skill, but are generally aimed at mastering broad competences that could be used in the work setting. Birdi et al. (1997) suggested the opportunistic nature and the lack of planning of informal development activities. Noe et al (1997) gave the example of someone picking up a coaching position in order to be able to give constructive feedback at work. (3) *Current versus future orientated.* Development activities can be aimed at helping the employee in their current job. They can also serve as preparation for a future change in the employees' job or responsibilities. Depending on the orientation, the development activities will differ in knowledge and competences.

(4) *Incremental versus framebreaking.* The situations in which development will take place can also differ in impact on the employee. Incremental situations provide room for gradual improvement, with the employee having a clear roadmap of where he/she is going and plenty of time to get there. Framebreaking situations are very different and can see radical changes in the environment, with the employee having to adapt quicker to a wide variety of development challenges. These activities widen the scope of the current job. Birdi et al. (1997) named this dimension 'job focus versus nonjob focus' to indicate if the development activities are job-related or not. (5) *Introspective versus interactive.* Some development activities leave it up to the employee to learn more about his/her own self, without interaction with people from the work environment. Other activities depend on the interaction with supervisors, subordinates, colleagues, and so on to change behavior or master certain skills and competences. These interactive development activities could be in the form of having an appointed mentor to help reflect on specific actions or situations. Birdi et al. (1997) replaced the fifth dimension with 'from being carried out in work time to being undertaken in nonwork time' which puts the emphasis of the development activity dimension on working time instead of interaction.

1.5.2.2 Actual development activities

Besides different aspects of definitions regarding development activities in general, we can also identify the specific types of activities. Noe et al. (1997) proposed four types of development activities: (1) employee assessment, (2) job experiences, (3) formal courses, and (4) relationships. This distinction by Noe et al. was used in other studies (e.g. Hertz & Williams, 2009). Employee assessment can be a helpful tool in creating an overview of strengths and weaknesses and establishing a planning for the employees' development. Typical options for this type of development activities are: performance appraisals, assessment centers, coaching, 360-degree feedback, and psychological tests.

Job experiences are developmental activities because they allow the employee to experience new tasks, situations that push them towards developing new skills and competences. Examples are lateral moves in the same job or in different functional environments, getting more responsibilities in the same job, promotion, and demotion. Formal courses can consist of anything from on- or off-site lectures or more comprehensive courses, to entire degree programs at a University, Relationships refer to interactions with other people in the work environment, such as a new employee getting a mentor that will try to develop the necessary skills and behavior in a specific company or market. Birdi et al. (1997) identified four types of development activities that can be offered by an employer: (1) required training courses in work time, (2) work-based development activities in work time, (3) voluntary learning activities in one's time, (4) and career planning activities.

1.5.2.3 Intentions to participate in development activities

The theory of planned behavior assumes that the best predictor for behavior in which an employee can choose to participate is his/her intention to actually perform that behavior (Fishbein & Stasson, 1990). Renkema et al. (2009) defined development intentions as 'the intention to participate in development activities for employability in the current function, as well as for changing functions or jobs within or outside the organization in which the worker is currently employed.' Intentions to participate in development activities have been identified as a strong predictor for actual participation (Maurer, Weiss, and Barbeite, 2003).

Intentions have been measured in different ways. Mathieu & Martineau (1997) studied the concept of trainee motivation and identified three main concepts for measuring if an employee is motivated to participate. These were (1) direct summative measures that ask employees to provide a self-rating regarding their motivation to participate and apply what they learned, (2) self-efficacy, which asks employees to what extent they will be able to master what is taught, and (3) valence-instrumentality-expectancy. Mathieu & Martineau described the last concept as “Expectancy refers to one’s personal belief concerning whether one can acquire a given skill, Instrumentality concerns the perception that acquisition of that skill will lead to specific outcomes, and valence is the relative desirability of those outcomes for each individual”. Other authors (e.g. Maurer, 2001, Kanfer & Ackerman, 2004) have used self-efficacy to explain how older workers select training.

Renkema et al. (2009) measured the attitude towards development intentions and measured the intentions to participate in development activities by using two scales: job-related and career-related activities. Hurtz & Williams (2009) described three different types of measures of intentions to participate in development activities: (1) desires, (2) self-predictions, and (3) perceived responsibility or obligation to participate.

According to Hurtz & Williams (2009) self-predictions are most often used in the literature, despite the fact that some studies (e.g. Fishbein & Stasson, 1990) found that desires (I want) was a better predictor than self-predictions (I will). Gaillard & Desmette (2010) used three items to measure learning and development intentions for older workers: ‘I am willing to learn new things for my job’, ‘I am interested to take part in a vocational training in the near future’, and ‘I am ready to develop new skills to keep up with new developments in my job.’ Bertolino et al. (2011) only used a single item to measure the intention to participate in development activities: ‘do you plan to take part in training programs in the next six months?’

1.5.3 Relevance of development activities for older workers

In general we can say that career development and training are becoming more relevant for all groups of employees (Sterns & Miklos, 1995). Younger employees are however on a different point in their careers and have knowledge and skills that are up to date with the most recent technological developments. Older workers may need development

because of new technology or organizational changes (e.g. Sterns & Miklos, 1995, Friedberg, 2003, Fouarge & Schills, 2009). In the framework of the traditional career models, career development would not necessarily be something that is important for employees in their mid- and late-careers. In the past it was accepted that older workers would show decline in skills after a period of maintenance (Sterns and Miklos, 1995). Since the move from life-long employment towards the new career concepts in which employability and frequent moves are the rule, the requirements regarding competences and skills have increased (Hall & Mirvis, 1995, Warr and Birdi, 1998, Kluytmans & Ott, 1999). The increasing gap between the knowledge that older workers have and what they need to continue to work in the changing environment has also been called the aging or obsolescence of the human capital (Van Dalen et al., 2008)

Within the context of social changes that were presented in paragraph 1.3, it has become clear that older workers will have to work longer than in the past. In the near future companies are likely to become more dependent on older workers because they will represent an increasing part of the active working population (De Lange et al., 2010). Because of the changes in employment policies, being employable is now also something that is asked of the increasing group of older employees. Although employability is asked of older workers, it is not often high on the agenda of employers (De Lange et al., 2005). In order to be employable, one needs to develop the required skills and competences to be able to keep working for the present employer, or to be able to find a job at another employer in the case of termination of contract due to for instance organizational restructuring.

Kluytmans & Ott (1999) use the terms external and internal mobility for indicating the intra- and interorganizational employability. As technological innovations and organizational changes have increased considerably in the last years, older workers need to develop and train in order for their knowledge and skills to remain current (Sterns & Miklos, 1995). As older workers need to invest more time in order to prevent their competences from becoming obsolete in a reality that no longer offers life-long employment, one could conclude that the relevance of career development for older employees has increased.

1.5.4 Research on career development of older employees

1.5.4.1 Initiative taking and development intentions by older workers

The evidence of any influence of age on the motivation for participating in training is not consistent (Mathieu & Martineau, 1997, Beehr & Bowling, 2002). Older workers have been found to differ from younger employees in both positive and negative ways (De Lange et al., 2005). A concept that has been studied by researchers is initiative taking or proactive behavior in relation to work- or development related activities. Motivation for learning and development is an important factor in actually participating in development activities (Sterns & Miklos, 1995). This concept shows overlap with employability because the initiative of employees regarding development lead to an increase in learning and experiences that in turn benefit both their opportunities with their current employer and on the labor market (van Veldhoven & Dorenbosch, 2008). Warr & Fay (2001) studied the relationship between age and different concepts of personal initiative at work for a sample of randomly selected full-time employees between the ages of 18 and 65 in the German city of Dresden. Besides these conceptualizations, a separate scale for education initiative was used. During interviews, the researchers asked participants about their participation in continuing education up to one year prior to the interview, to which extent they took the initiative to participate, their intentions and actions regarding development activities in the immediate future, and possible longer term plans.

Although Warr and Fay found no relationship between age and personal initiative at work, they did find a negative relationship between age and education initiative. Warr & Fay (2001) suggested that older workers might take less initiative regarding self-development because they might see the period for return on the education investment as too restricted, thereby negatively assessing the self-development activity. Maurer, Weiss & Barbeite (2003) performed a longitudinal study of a random sample of over 800 US employees and examined the involvement in learning and development activities. They found a negative relationship between age and individual learning preparedness. Respondents perceived having fewer cognitive abilities and learning abilities. Maurer, Weiss & Barbeite also reported a negative relationship between age and the perceived need for development.

Pillay et al. (2006) studied the attitudes of an Australian sample of mostly blue-collar workers regarding learning and found that the older workers in their sample reported less intentions to improve their work related skills and qualifications than the younger workers of the same sample. Pillay et al. further reported that the education level and job type were of influence on the intentions to participate in development activities. Office workers and participants with higher levels of education were more often convinced that they had to keep learning in order to keep up with developments than did manual workers and workers with basic education levels.

Van Veldhoven & Dorenbosch (2008) found a slightly negative relationship between age and developmental proactivity for a sample of 619 employees working in 11 Dutch companies, but this relationship was not significant. According to the authors, the different sample might explain why they had more positive results in their study than the results published by Warr & Fay (2001). The sample used in the study by van Veldhoven & Dorenbosch (2008) was made up by both higher and lower skilled functional groups. Besides 186 participants that worked in manufacturing jobs, other participants were working in a variety of jobs, such as IT consultants, teachers and policy advisors.

This is very different from the sample studied by Warr & Fay (2001), where 95% of the participants were working in a manufacturing job in the same company. Van Veldhoven & Dorenbosch (2008) also found career development related HR practices to be related to developmental proactivity, thereby concluding that developmental proactivity is influenced by contextual factors. Fouarge & Schills (2009) found a relationship between the type of early retirement scheme and the participation in training. They suggested that a flexible early retirement scheme would put less pressure on employees than a restrictive scheme. Whenever they get the first chance to leave with early retirement they don't feel that they have to take it or leave it and this means that people are more committed to their work and will be more willing to participate in development activities.

Bertolino et al. (2011) found stronger negative relationships for older Italian local government employees between proactive personality and the developmental outcomes: training motivation, perceived career development from training, and intentions regarding training behavior. Kooij et al (2011) performed a meta-analysis on 86 studies that were published after 1970, with 51% of these published after 2000. They reported that motivation

for development, challenge, advancement or promotion declined with age. Van Vianen et al. (2011) found a negative relationship between age and the willingness to invest in formal (initiated by the organization) learning and training activities for a sample of Dutch local governmental employees. This relationship was moderated by perceived developmental support, supervisor beliefs regarding the employees' learning avoidance, and if the older employees believed that their abilities could change or not. NG & Feldman (2012) performed a meta-analysis on 253 studies in which they studied the effect of age on six stereotypes. One of these stereotypes was that older workers are less motivated to participate in training and development activities. NG & Feldman found that age was weakly negative related to (1) career development motivation, (2) self reported career development behaviors, (3) non-self reported career development behaviors, (4) motivation to learn, (5) motivation to train, and (6) learning self-efficacy.

The question is then, why older workers show less willingness to participate in development activities? One of the possible answers might be that older workers have a goal orientation that is more focussed on maintaining current level than on growth (Ebner et al., 2006). Other researchers use socioemotional selectivity theory. Löckenhoff & Carstensen (2004) describe the principle idea behind socioemotional selectivity theory as: "when boundaries on time are perceived, present-oriented goals related to emotional meaning are prioritized over future-oriented goals aimed at acquiring information and expanding horizons." Socioemotional selectivity theory assumes that younger people will be more interested in learning and growth that is useful in the more distant future, whereas older people are more interested in short-term emotional goals, as they hold a limited time or time-till-death perspective (De Lange et al., 2010).

Self-efficacy has also been named as a reason for older workers' reduced willingness to participate in development activities by a number of authors (e.g. Maurer, 2001, Kanfer & Ackerman, 2004, Greller, 2006, Armstrong-Stassen, 2008). Self-efficacy for learning and development has been described by Maurer (2001) as an "older workers' self-confidence in their ability to learn and develop". Maurer proposed that the self-efficacy of older workers is negatively influenced by the stereotypes about older workers' ability to learn and develop. This would lead to older workers being less willing to participate in development activities. Kanfer & Ackerman (2004) used self-efficacy to explain how older workers select training. They suggested that older workers would select certain training activities if they were

confident that they would be able to master that what was being taught. Armstrong-Stassen (2008) found learning self-efficacy of a sample of managers to be significantly negatively related to career plateauing.

Another possible answer is that older workers have a positive career situation that does not necessitate an increase in pay or promotion (Kanfer & Ackerman, 2004, De Lange et al., 2010). Beehr and Bowling (2002) suggested that it might also be a logical consequence of the processes during one's career. As young people have to learn a lot in order to gain the necessary experience, they are somewhat forced to be more willing to participate in development, whereas an older, more experienced employee, might have gained a lot of experience throughout the career, which in turn might result in steady performance levels and less sense of urgency for participation in development activities. Van Vianen (2007) used proactivity in the more general context of job change and explained that it is influenced by the career stage in which an employee will be. Older workers will show less proactivity than younger workers, especially when they are satisfied with their accomplishments. The temporal focus of older workers might also lead to different views on growth and development in order to get more salary or a promotion, leading to less motivation to participate in development activities (Kanfer & Ackerman, 2004, Kooij et al., 2011).

1.5.4.2 Older workers' participation in development activities

Warr & Birdi (1998) examined the relationship between age and participation in four different development activities; a tuition refund scheme, a development programme, a development centre, and a personal development record which allowed the employee to assess the progress made. All development activities were sponsored/financed by the employer, a large car-producing firm in the United Kingdom. The participants were mainly vehicle assemblers that worked on the production line. Warr and Birdi found a negative relationship between age and all development activities, meaning that older employees were less likely to participate in any of the development activities that were studied. Two variables were found to act as moderators; education level and overall motivation for learning. The authors also examined the differences between younger and older employees within the sample and concluded that both groups were equal in reporting benefits after having participated in a voluntary development activity. Warr & Birdi (1998) proposed that older

employees might be less interested in work-related development activities because overestimating their skills and competences in their own job leads may to the perception that further training is not necessary.

Greller (2006) studied a sample of 450 US alumni in the age groups 23-31, 32-39, 40-49, 50-70 and did not find a difference in the amount of time spent on professional development for the older participants. Investments in development were influenced by career motivation however. Fouarge & Schills (2009) studied a diverse sample using the data from the European Community Household Panel. They found a lower participation rate for older workers aged 45-54 than for younger employees. Fouarge and Schills also reported that the group of older workers showed a negative relationship between the level of formal education and participation in training. This relationship was positive for younger employees in the same sample. A meta-analysis by NG & Feldman (2012) reported no significant relation between age and training participation.

1.5.4.3 Popular beliefs about older workers and development

Greller (2006) stated that older workers seek out development outside of the company-sponsored training. This implies that older workers are actively looking for ways to develop themselves. Armstrong-Stassen (2008) focused on the in-company development and proposed that the majority of older workers is interested in continued development and would like to have a challenging and meaningful job. Kooij et al (2011) reported that age is positively related with motivation for accomplishment or achievement, the use of skills or interesting work, and autonomy. Popular beliefs about older workers do not confirm these desires. Stereotypes regarding older workers have led to views that this group is not motivated to participate in development activities and does not have the same capabilities as younger employees regarding learning and development (Maurer et al., 2008).

These stereotypes are not surprising, as societal norms and expectations predict settlement, stability, and a decrease in desires and opportunities for older workers (Van Vianen, 2011). In paragraph 1.6 potential consequences of stereotypes are discussed. It is likely that negative views on the motivation and capabilities of older workers regarding development activities will lead to a variety of barriers being put in place by management. A

number of studies have reported a decrease in training opportunities for older workers. Van der Heijden (2006) reported that for both profit and non-profit sector companies in the Netherlands development opportunities for employees decrease, as they get older. One of the reasons that older workers have less development opportunities is the perception of management that these employees have less time left in order to give the organization a return on the investments that are necessary for development (e.g. Hall & Mirvis, 1995, Fouarge & Schills, 2009).

Although older employees might be closer to retirement, they are also less likely to leave the organization (e.g. Warr, 1993), which means that the organization will have more certitude that the employees will give a return on the development investment up to the moment of retirement. Besides the organization and management being influenced by stereotypical beliefs regarding older workers it is also possible that the older worker is influenced by the same stereotypes. The study by Maurer et al. (2007) concluded that the older workers' perceptions of his/her interest in, and level of performance during development activities could be influenced by the views that they had on the abilities and desires of older workers to participate in these activities. Noe et al. (1997) suggested that the older workers' confidence in his/her ability to adapt to new challenges might be shaken by negative perceptions from management, and that this might lead to a lowered participation in development activities.

1.5.4.4 Abilities of older workers

The stereotypes regarding the abilities of older workers are presented in the previous section and in paragraphs 1.2, and 1.6 One of the stereotypes that seem to be widely shared is that older workers will undergo mental and/or physical decline as they age (Warr, 1993, Sterns & Miklos, 1995, Nauta et al., 2005, Maurer et al., 2008, Loretto & White, 2006, Roscigno et al., 2007). As we presented in paragraph 1.4, there is decline in specific areas (e.g. Warr, 1993, Greller & Simpson, 1999), but this is not necessarily related to a decrease in performance (e.g. Sterns and Miklos, 1995, Nauta et al., 2005). The concepts of fluid and crystalized intellectual abilities (Kanfer & Ackerman, 2004) and the differences between them are discussed in section 1.6.3.1.

The popular belief however is that older workers have less abilities to learn than their younger colleagues (e.g. Borghans & Ter Weel, 2002). The stereotypes influence the behavior of older workers regarding development activities. Maurer et al. (2007) concluded that older employees participating in their study who perceived that older workers do not have the ability to develop themselves were less interested in participating in development activities. Van Vianen et al. (2011) suggested that the older workers who think that their capacities are changeable would perceive that they could develop further through the participation in development activities.

Kanfer & Ackerman (2004) proposed a model of adult development, which has four themes: (1) loss, (2) growth, (3) reorganization and (4) exchange. Loss and growth refer to the increase in crystalized intellectual abilities and the decrease in fluid intellectual abilities. Reorganization refers to the changes in orientation towards social interaction over the life span. According to Kanfer & Ackerman the older individual will change the motives for social interaction from obtaining certain resources towards getting emotional satisfaction and support of the own identity. Exchange refers to the changes in personality, self-concept, interests, and values over the life span. Kanfer & Ackerman (2004) concluded that there was no theoretical justification or empirical evidence that supports the concepts of guaranteed and universal decline in work motivation when people get older. Friedberg (2003) studied the use of computers by older workers and concluded that the use of computers was not influenced by age alone, but especially by impending retirement.

1.5.4.5 Creating a supportive development environment

For employees to want to participate in development activities, they will have to be challenged in their jobs (Armstrong-Stassen, 2008, Kooij et al., 2011). When people do not feel the need to acquire new skills and competences in order to perform in their job, they will not perceive a necessity to develop themselves (Warr & Birdi, 1998). When looking at the stereotypes discussed in paragraphs 1.2 and 1.6, it becomes plausible to assume that because of a number of stereotypes and age discrimination related outcomes; employers are more inclined to offer a challenging environment to younger employees. Research has shown that employers should also involve older workers in designing an environment that motivates employees to develop their skills.

De Lange et al. (2005) studied the effects of job demands and job discretion on the motivation to learn of a sample of Dutch employees. They found that there were no significant differences between younger and older employees, which suggests that both younger and older employees need a challenging working environment in order to be motivated to participate in development activities. Kooij et al (2011) reported an increase of motivation for interesting work, autonomy, and achievement as employees get older, suggesting that they might be interested in new challenges such as mentor roles.

The absence of challenges in the job is called job content plateauing (Armstrong-Stassen, 2008) and looks at the contents of the job, rather than the possibilities for promotion in the hierarchy or an increase in responsibilities, which is often examined in research focussing on plateauing (e.g. Feldman & Weitz, 1988). Armstrong-Stassen studied the relationship between organizational and individual factors and job content plateauing of older workers and found that, for a sample of Canadian managers, professionals and nurses in the ages of 50-65, Perceived Organizational Support (POS) had a stronger relationship with job content plateauing than the personal factors work centrality and learning self-efficacy. In a separate sample, Armstrong-Stassen found that perceived respect by the organization, supervisor and colleagues also had a significant negative relationship with job content plateauing.

This would suggest that even if people perceive work as being very important in their lives, and if they feel capable of developing themselves, it is the learning and development opportunities, support and respect offered by the organization and colleagues that is most important in realizing a decline in job content plateauing. Research by Herrbach et al. (2009) has shown however that solutions aimed at older workers in the form of flexible working conditions and the opportunity to take on new roles were unrelated to organizational commitment and that new work roles were positively related with early retirement. These results suggest that more challenges for older workers are not necessarily perceived as something positive by those concerned. The authors referred to Lambert et al. (2003), who suggested that excess inducements are only a good thing when they allow the employee to fulfill other general needs. Over-fulfilment resulting in more investment can be perceived just as negative as deficient inducements.

The absence of challenges and lack of social support from the environment and colleagues in particular have also been identified as potential causes of burnout among older Dutch workers (Henkens & Leenders, 2010). Burnout can lead to withdrawal behavior from work in general and thus from specific areas such as development activities. Supervisor support is part of the bigger supportive framework in which older employees are motivated to develop themselves. The supervisor plays an important role in the employees' willingness to participate in development activities. Van Vianen et al. (2011) suggested several ways that a supervisor could support the employee. Supervisors can encourage the older worker to think about their own development, they often have a say in which specific activities the older worker could participate, which implies that there could be an optimal match between employee and activity. The supervisor can also provide sufficient amounts of resources and time for the different activities.

1.6 The stereotype of being an older worker

The previous paragraphs presented different intentions regarding employability in the form of mobility and development intentions. The literature review identified several variables that could potentially influence the perceptions of older employees. One of these is the stereotype of being an older worker. This paragraph will present different beliefs and stereotypes regarding older employees, the potential influence that these stereotypes might have on people concerned, and the mechanism that can be used as a tool for explaining why some people incorporate these stereotypes while others do not.

1.6.1 Social identity and self-categorization theory

Social identity theory (SIT) assumes that people will often see themselves as members of a specific group and will embed behavior that is associated with being a member of that group (Ellemers et al., 2004). As different social settings (e.g. work and private) can mean that an individual is able to identify with the members of more than one group, a person can have different social identities. The basic assumptions of social identity theory are that the group membership is part of one's self-definition and that every individual will pursue a positive self-image (Tajfel and Turner, 1979).

The processes of social identity theory are relevant in the context of stereotypes because stereotypes often result in a different set of opportunities and options for a specific group (e.g. the group of older workers does not get the same promotion opportunities as younger employees because of certain stereotypical views on the motivation of older workers). Bargh (1999) reviewed studies on the behavioural responses to stereotypes as an automated and unintended process that influences perception and social judgement. He concluded that the perception of a social group's characteristic was enough to trigger the group-related stereotypes and that this was then unwittingly projected on individual members of that group.

When a specific group is excluded from rewards and opportunities they will use the terms of the categorization that was given to their group when they think of themselves (Schmitt et al., 2003). This means that older workers can show behavior that is aligned with the views that current stereotypes in the organization have assigned to their social group and that the image of being an older worker can have potential influence on the relationship between different variables in research models. Of the three underlying processes that were identified as influencing group behavior within the SIT framework, social identification has been used the most and the term self-categorization theory is therefore used in more recent work (Chattopadhyay et al., 2004, Ellemers et al., 2004).

Tajfel (1978) defined social identification as: 'that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership.' Gaillard & Desmette (2008) refer to social identity as 'a self-definition in terms of social category membership and emphasizes similarities between me and members of my group (the ingroup) and differences between us (ingroup members) and members of another group (the outgroup).'

Social identity theory suggests that people will react on negative images of their ingroup by adopting either individual or collective coping strategies, such social competition, -creativity, and -mobility (Tajfel & Turner, 1986). These strategies are influenced by the permeability, legitimacy, and stability of the status hierarchy (Chattopadhyay et al., 2004). We will discuss relevant strategies in the next paragraph. We can use different measures when identifying perceived membership to social groups.

Ellemers et al. (1999) measured the identification with the ingroup using different latent variables (cognitive, evaluative, and emotional component) that they assumed contributed to the social identity of an individual. Gaillard & Desmette (2008) studied cognitive and affective identification in research on coping strategies used by older workers. Cognitive identification refers to a person's awareness of membership of a specific group while affective identification has to do with the perceived emotional involvement of a person with a specific group.

1.6.2 Influences of stereotypes on individuals

Stereotypical views that people share within organizations can become so familiar that they are perceived as representative for a specific group. The behavioural responses to these stereotypes then become automatic and when this happens it is almost impossible to change the influence of these stereotypes (Bargh, 1999). According to Bargh, even being aware of these processes and being motivated to counter them does not always prevent stereotypical behavior and judgements from happening.

As was previously reported, stereotypes can be either positive or negative in nature. Gaillard & Desmette (2010) presented a Belgian sample of older workers with positive and negative stereotypes regarding the social group of older employees and concluded that participants were more or less willing to leave on early retirement, depending on having seen either negative or positive stereotypes. In a separate study, they reported that another sample of older Belgian employees confirmed earlier findings and that participants were also more motivated to develop in their work when they had received the positively stereotyped information.

Besides leading to age discrimination as part of the ageism concept that was discussed as an employer outcome in paragraph 1.2, stereotypes help construct perceived social group identities that can lead to different employee strategies meant to compensate for the lower status of the specific group. These coping strategies aimed at enhancing one's own social identity were mentioned in the previous paragraph and are possible behavioural outcomes of existing stereotypes in the organization. Tajfel & Turner (1986) identified social competition, social creativity, and social mobility. Social competition is a strategy were employees from

the lower status group will challenge the members of the higher status group(s) for acknowledgement of relevant qualities, better status of their own social group, and resources such as job and remuneration opportunities (Chattopadhyay et al., 2004).

Social mobility is a strategy that an employee uses when he/she is trying to move from the current lower status group to one of the higher status groups. Social creativity is a strategy that tries to include qualities and attributes that are status irrelevant outside of the company or that are not used in the establishment of current status differences between the different social groups, so as to create a new, more positive status for the low status group (Chattopadhyay et al., 2004).

Apart from being used as an independent variable, the identification with specific groups has also been identified as a mediating variable in psychological contract research. Hekman et al. (2009) reported that the relation between psychological contract violation and performance at work was mediated by the extent to which the employee identifies with the organization and profession. Besides triggering the coping strategies, stereotypes can lead to other outcomes. Some of these that are more specific for older workers will be discussed below.

1.6.3 Stereotype of older workers

1.6.3.1 Beliefs on older workers

A number of stereotypes that have been studied in the past were presented in paragraph 1.2. Recurrent aspects of these stereotypes are the abilities and attitudes of older versus younger employees. The abilities of older workers, and possible decline of certain abilities as people get older, have been subjects for debate in the literature. Researchers generally agree that there is a decline of adaptability, physical and cognitive abilities as people age (e.g. Warr, 1993, Greller & Simpson, 1999, Sterns & Miklos, 1995, Kanfer & Ackerman, 2004, Nauta et al., 2005, Ebner et al., 2006, Peeters & Van Emmerik, 2008). This decline however does not mean that older workers undergo a general cognitive decline (Wood et al, 2008, Brough et al., 2011) or a decline in performance on the job (e.g. Warr, 1993, Greller & Simpson, 1999, Sterns & Miklos, 1995, Nauta et al., 2005). Kanfer & Ackerman

(2004) went as far as saying that assuming that age means that there is a general decline is 'simplistic and misleading.' Warr (1993) states that 'the many aspects labelled as general work effectiveness remain stable or increase with age' as he points out that employees rarely have to perform at the top of their intellectual abilities and that other factors, such as motivation and interacting with others are often more important in getting results in the workplace.

Sterns & Miklos (1995) point out that one should not forget that there is a significant discrepancy between the actual physical abilities of older workers and what level of abilities is needed for a particular job. According to Sterns and Miklos most of the decline in abilities that an older worker will experience are not relevant in their work setting. Nauta et al. (2005) add that in most cases health problems should not interfere with performing in the job. Warr (1993) proposed a framework with four different types of tasks. These were (1) age-Impaired, (2) age-counteracted, (3) age-neutral, and (4) age-enhanced activities. The first two types are the tasks in which the older worker is most likely to have more difficulties, as they involve cognitive abilities such as showing a rapid response time and using the working memory.

The first two types of task are more likely to exist in rapidly changing environments. The third type of tasks is what Warr called age-neutral and represents the more routine tasks in the job that do not present complicated problems to the employee, thus not requiring the cognitive abilities that are likely to show decline when aging. The fourth type refers to the type of tasks that are especially suited for older employees because they need a level of experience that younger employees cannot have build up in the shorter time span that they have been performing that specific task.

Although working memory abilities might decline over time, the memory as such is not affected and build up experience is available for the older employee. Researchers have identified two categories of intellectual abilities: fluid and crystalized intellectual abilities (Kanfer & Ackerman, 2004), also defined as mechanic and pragmatic abilities (e.g. Baltes et al., 1999). Fluid abilities rely on aspects such as working memory or processing speed, abstract reasoning, processing new information, spatial functions, and tend to decrease with age (Kanfer & Ackerman, 2004, Peeters & Van Emmerik, 2008).

Crystallized abilities refer to the total amount of knowledge in both work and private life that someone gathers over the course of his/her life and that can be used in specific situations. Crystallized abilities demand fewer efforts capacity-wise than fluid abilities and tend to increase with age (Peeters & Van Emmerik, 2008), continuing past middle age (Kanfer & Ackerman, 2004), possibly even after the age of 70 (Baltes et al., 1999).

Although popular belief inspires views of older employees as lacking initiative and being uncreative or innovative, several studies have shown that this is not necessarily the case. Warr (1993) concluded that absenteeism, accident rates and turnover were actually lower for older workers and that job performance was generally unrelated to age. In cases that job performance did decline, there was usually a lack of training preceding this reduced level of performance. Warr & Fay (2001) found no relationship between age and personal initiative at work. Van Veldhoven & Dorenbosch (2008) found a positive relationship between age and job proactivity.

Binnewies et al. (2008) examined a sample of German nurses and found that age itself was not related to idea creativity and that job control and support for creativity acted as moderators, resulting in a positive relationship between age and idea creativity when the employee perceived high control in his or her job, and a negative relationship between age and idea creativity when the employee reported having low control towards their job and receiving low support for being creative. Stereotypes can lead to the discrimination of older workers, which can potentially lead to a variety of employer or colleague-initiated outcomes, which were discussed in the previous section.

1.6.3.2 Research on the effect of stereotypes on older workers

In paragraph 1.2.4.3 we presented several specific age stereotype-inspired age discrimination effects in organizations, such as not giving any opportunities for promotion (e.g. Armstrong-Stassen, 2008), and having barriers to participation in training and development opportunities (e.g. Maurer, Wrenn & Weiss, 2003). Besides influencing the employer, age stereotypes can also influence the perceptions and decisions of older workers (e.g. Noe et al., 1997, Van Dam et al., 2006, Maurer, 2001, Maurer et al. 2007). According to Kanfer & Ackerman (2004) older workers are more likely to select certain development

activities based on the confidence that they will ‘pass’ the activity, than based on the future benefits that they will have from participating.

This confidence is also referred to as self-efficacy for learning and development, and is negatively influenced by age stereotypes (Maurer, 2001). Although the social identity theory and self-categorization theory can be used to explain these outcomes, researchers do not necessarily opt for this framework. Several studies study the influence of a specific stereotype on an outcome variable. An example is the study by Bailey & Hansson (1995) that concluded that the perceived risk of job changes by older workers might be influenced by age stereotypes. Noe et al. (1997) suggested that negative perceptions from management might lead to less participation in development activities.

Maurer et al. (2007) studied a sample of older US workers in the ages between 40 and 70 and found relationships between the stereotypical belief that older workers lack developmental abilities and their perceptions of self-concept, interest in development and when they should retire. Respondents that reported that older workers do not have the ability to develop themselves had stronger beliefs that they should retire, were less interested in participating in development activities and did not think that they could perform according to the norm when they participated in a development or learning activity. Maurer et al. also found relationships between the stereotypical belief that older workers do not desire development and the participants’ perceived interest in development and ideas about their retirement.

Although the stereotypes about older workers often imply that the stereotypical belief is an exception of behavior and/or abilities and desires in regard to younger employees, there are also a number of studies that have examined the differences between younger and older workers. Some of these findings are presented here. When older employees lose their job, they are more likely to spend more time being unemployed and looking for work than younger employees (e.g. Hutchens, 1988, Snape & Redman, 2003, Wood et al., 2008). Regarding age discrimination, Snape & Redman (2003) found differences between the younger and older participants of their sample of British government personnel. The participants below the age 30 felt that they were being more discriminated against than the over 40 year olds.

Snape & Redman (2003) also reported that there was a difference in the type of discrimination encountered by both groups. Younger and older participants reported discrimination regarding job applications and promotion, but only the older group reported discrimination regarding development opportunities. Pillay et al. (2006) found that older employees were interested in jobs that demanded less of them physically. They also reported that the older workers in their sample of 397 Australian employees were less likely to plan an early retirement than the younger workers of the sample.

The different findings for younger and older employees are reflected in the different representations of these groups by management. In a French qualitative study Grima (2011) presented three different management representations of the two groups. Younger employees were described as 'looking for promotion, very mobile', 'high academic potential, sharp mindedness', and 'openness to change' while older employees were represented through the statements 'refusal to evolve', 'reduced cognitive abilities for some', and 'reticence to change'.

Within the framework of the social identity theory framework, Gaillard & Desmette (2008) identified a number of potential outcomes that are relevant for older employees, based on the coping strategies that were described above. These potential outcomes were early exit, affective organizational commitment, psychological disengagement, and competition with younger employees, which is the same strategy as the social competition that was described above. Early exit refers to older employees leaving the active working population by opting for an early retirement. Opposed to exiting the workforce we can identify staying in the workforce. Gaillard & Desmette (2008) used a scale measuring affective organizational commitment in order to determine the coping strategy social mobility, which can be seen as a measure of willingness to remain in the workforce. Although an older worker cannot change to the social group of younger employees, he/she might be able to join another social group that enjoys higher status than the current group of older workers.

It would therefore be logical that an employee that wants to identify him/herself with another social group than the negatively perceived current ingroup would report higher affective organizational commitment, because this would indicate the employee identifying with the bigger organization instead of the group labelled as older workers. Psychological disengagement refers to the older employee remaining in the workforce, but making the

organizational life less important as a factor for success, thereby limiting the effects of the negative stereotypes/social identity.

1.6.4 Measuring stereotypes and social identity

As the stereotypes that can potentially be found in companies shows great variety across different studies, measuring the presence of a specific stereotype using a questionnaire seems limiting rather than useful, since there will be a good chance of stereotypes that were not identified actually existing within an organization. Before any specific stereotypes can be included in a questionnaire, a qualitative pilot study within the studied organization would be necessary in order to create an overview with relative views on a specific group. In the case that there are a great many organizations participating, the use of more general concepts such as the cognitive or affective identification with the identity of being an older worker is more reliable because it does not take into account the specific views that are current in any of the participating organizations.

Gaillard & Desmette (2008) used two scales on a sample of older Belgian workers that were adapted from Ellemers et al. (1999) and that measured the identification with the ingroup using cognitive (awareness of membership of a specific group) and affective identification (perceived emotional involvement of a person with a specific group). Gaillard & Desmette found that cognitive identification was significantly positively related to early exit intention and competition with younger employees. Affective identification was significantly negatively related with competition with younger employees.

1.7 Conclusions

Chapter 1 gave the reader a non-exhaustive overview of the research on older employees. After an introduction on research on older employees, relevant factors from the economic and societal context were presented. Next the issues surrounding mobility and development of older workers were discussed. The review ended with the influence that social identity theory and stereotypes have on the behavior of older workers. Based on the literature review of the psychological contract that will be presented in the second chapter, we assumed that different dimensions of the psychological contract contents will have different effects on

the employability related intentions that older workers have. Because employability can be measured through moving in between positions and by investing in training and education (e.g. Van Dam et al., 2006), we decided to use both as dependent variables. Since we opted for a cross-sectional study, we measured intentions instead of intentions plus actual decisions.

Intentions to participate in development activities have been identified as a strong predictor for actual participation (Maurer, Weiss, & Barbeite, 2003). Besides the development intentions we also examined the willingness to accept a set of mobility opportunities, which Veiga (1983) mentioned as being one of the most common conceptualizations of career mobility. The research design, -model, and methodology are presented in chapter 3 with the research questions and the hypotheses.

Chapter Two

The employment relationship conceptualized as psychological contract

2 The employment relationship conceptualized as psychological contract

2.1 Introduction

This chapter will present the reader with a literature review of the concept of psychological contracts. The following five paragraphs provide an overview that will start with the origins of the concept, its developments since the 1960's, and different ideas and views that exist regarding psychological contracts and their conceptualization. After this first exploration of the concept, the next paragraphs will present three ways of conceptualizing research on psychological contracts, according to a framework for psychological contract measurement that was suggested by Rousseau & Tijoriwala (1998). These three ways of organizing psychological contract research are:

- 1 Psychological contract features;
- 2 The contents of the psychological contract;
- 3 Psychological contract evaluation.

Since the sample for this thesis consists of employees aged 45-55 we will also present an overview of studies that examined psychological contracts in relation to age, older employees and different generations.

2.2 The concept of psychological contracts

2.2.1 Underlying ideas and dynamics

Before looking at the history and the development of the psychological contract as a research construct, we will start by presenting some of the underlying ideas and dynamics in order to give a better understanding in which context the psychological contract can be placed. Besides dynamics and a description of what the psychological contract is, this paragraph will also present Social Exchange Theory (SET), which is one of the underlying theories of psychological contracts (Rousseau, 1995, Coyle-Shapiro & Conway, 2004).

2.2.1.1 What is the psychological contract?

There are different ways of defining the psychological contract. We will discuss different definitions, conceptualizations and currents within the psychological contract literature in the following paragraphs. The differences notwithstanding, the psychological contract can be described as a set of promised inducements on both the employee and employer side, that are part of an unwritten contract that exists between the two parties. The psychological contract can have a lot of different inducements and is highly subjective, with parties not necessarily agreeing and is therefore different from other constructs such as implied contracts, which consist of commonly understood or shared expectations within a society (Rousseau, 1989, Morrison & Robinson, 1997).

The psychological contract determines how the employee will react if the employer keeps up his end of the deal, or vice-versa. Rousseau (1990) states: “Promises of future behavior (in this case on the part of the employer) typically are contingent on some reciprocal action by the employee.” An example would be a certain level of job security and/or competitive salary offered by the employer in return for the employees’ willingness to be flexible regarding over time or keeping up with new developments within his or her profession outside of normal working hours. If the employer or employee do not respect the contract, and do not deliver (enough), then the other side will also lower their output. This means that the promised inducement and the consideration exchanged for it make up the psychological contract (Robinson & Rousseau, 1994).

Even though there is no consensus on a single definition of the psychological contract, researchers agree that the psychological contract includes the beliefs of the entire range of possible exchanges that can take place between the two parties (Conway & Briner, 2005).

2.2.1.2 Social Exchange Theory

The use of the exchange principle places the psychological contract concept within the context of the social exchange theory (Blau, 1964). Social exchange theory involves a series of interactions that produces obligations (Cropanzano & Mitchell, 2005). Apart from the

psychological contract, social exchange theory has been conceptualized by other constructs such as Perceived Organizational Support (POS) and Leader-Member Exchange (LMX).

POS refers to the employees' perception of the extent to which the organization is concerned with their well-being and values their contributions (Eisenberger et al., 1986). Although researchers have tried to integrate the concepts of POS and psychological contracts (Aselage & Eisenberger, 2003), both concepts are considered distinct (Taylor & Tekleab, 2004, Coyle-Shapiro & Conway, 2005). POS focuses on a general employee perceptions regarding the extent to which their employer values the employee's contributions and welfare, while psychological contracts focus on specific contents of the employment relationship. Another unique contribution of psychological contract research is the concept of contract breach (Conway & Briner 2005, 2009). Contract breach occurs when a psychological contract remains unfulfilled and the concept is discussed in paragraph 2.5.

Leader-Member Exchange or LMX refers to the leader-subordinate dyad that exists in employment relationships. Liden et al. (2004) stated that 'the major premise of LMX theory is that rather than treating all subordinates alike, leaders differentiate between subordinates, forming relationships that involve the exchange of resources and support that extend beyond the formal job description.' The distinction between LMX and psychological contract research is that LMX focuses on the relationship between the employee and the immediate leader, whereas psychological contracts refer to employee and employer promises and obligations, without specifying who represents the organization. We refer to section 2.2.2.4 for an overview of possible psychological contract makers.

Underlying the exchange between employer and employee is the norm of reciprocity, that "in its universal form, makes two interrelated, minimal demands: (1) people should help those who have helped them, and (2) people should not injure those who have helped them" (Gouldner, 1960). There are different types of exchange relationships that can exist between the employer and employee. Social exchange theory distinguishes economic and social exchange. According to Tsui et al. (1997), pure economic exchange takes place when: "The employer offers short-term, purely economic inducements in exchange for well-specified contributions by the employee."

Blau (1964) described the differences of economic and social exchange: “The basic and most crucial distinction is that social exchange entails unspecified obligations. The prototype of an economic transaction rests on a formal contract that stipulates the exact quantities to be exchanged. ... Social exchange, in contrast, involves the principle that one person does the other a favour, and while there is a general expectation of some return, its exact nature is definitely not stipulated in advance.” With regard to the consequences of the type of exchange for the employment relationship Blau states that: “Only social exchange tends to engender feelings of personal obligation, gratitude, and trust; purely economic exchange as such does not”.

Tsui et al. (1997) approach economic and social approach from the employers’ point of view and consider them as employment relationship strategies. In choosing between the approaches, the employer will have to take a number of indicators into consideration. If a job or task is straightforward and transparent, it will be easier to have a more economic exchange, as possible changes might be foreseen and therefore appropriate inducements can be anticipated. It becomes more difficult when tasks become complicated and employees cannot be replaced easily. Changes and future needs can no longer be assessed easily and inducements might have to be replaced or adapted in order to keep employee committed to the organization. Tsui et al. (1997) suggest that: “at least for job complexity and external adaption reasons, the employer may find it advantageous to leave some obligations unspecified and to treat the employment relationship as a combination of economic and social exchange rather than as a purely economic exchange.”

As discussed above, the psychological contract holds the different inducements that the employee feels were promised to him, and is based on social exchange theory (Blau, 1964) and the reciprocity norm (Gouldner, 1960). When looking at the concept as a process, that has its own dynamics, one could ask the question how all these different elements fit together. In the following section we will focus on the dynamics of the psychological contract. The development of the psychological contract and changes in the employment relationship over time will be discussed in the following paragraphs.

2.2.1.3 Psychological contract dynamics

Rousseau (2004) explained the dynamics of the psychological contract through six key features of the concept. (1) *Voluntary choice*: employees are motivated to fulfil their commitments because they freely participated in the exchange of promises. Although most conceptualizations of the psychological contract have assumed that the relationship is voluntary, researchers (e.g. McLean Parks et al., 1998, Sels et al., 2004) suggest that this might not always be the case for all groups of employees, like temporary workers. (2) *Belief in mutual agreement*: individuals tend to act on the psychological contract as if it is mutual, even though it is made up of personal perceptions regarding the promised commitments and are therefore very subjective. (3) *Incompleteness*: it is impossible for the psychological contract to be complete as it is impossible to have a detailed view of the entire duration of the employment relationship at its beginning. This means that a number of promises will have to be changed, added or removed from the psychological contract as the employment relationship develops. In order to improve mutuality and to prevent that inconsistent understanding arise; periodic efforts will have to be made.

(4) *Multiple contract makers*: the employees' interpretation of the psychological contract is influenced by many sources of information, like human resource professionals and human resource practices, co-workers, top management, immediate boss. It is important that all these different sources give a common message in order to have maximal mutuality of the psychological contract. We will discuss the different actors involved in the psychological contract in the next paragraph. (5) *Managing contracts when contracts fail*: a breach of contract can occur when employers fail to deliver the promised (levels of) inducements. This breach can sometimes lead to feelings of contract violation that can have strong emotional reactions. In general, employers and employees will pursue psychological contract fulfilment, but will sometimes have to manage certain losses when it is not possible to fulfil certain commitments. An example would be a senior employee not getting a promised position with more responsibilities, but instead being given the opportunity to be a mentor or coach for younger, less experienced employees, so that he will have additional responsibilities and can make better use of his knowledge and competences in his current job position. (6) *Model of the employment relationship*: a psychological contract provides both employees and employers with a mental model of the employment relationship. The psychological contract

allows for a better understanding of what can be expected and facilitates certain behavior through the creation of a stable exchange relationship.

2.2.2 History and conceptualizations of the concept

There are different concepts of what the psychological contract is. In this paragraph we will first present the earlier publications from the 1960's and 70's before discussing the reconceptualization of the concept by Rousseau (1989) and the differences between the two main streams of recent psychological contract research.

2.2.2.1 Early publications

The psychological contract is a concept that was first used in the 1960's. Argyris (1960) studied employees and their foremen and was the first to use the term psychological contract in a work environment (Anderson & Schalk, 1998, Conway & Briner, 2005). Argyris observed that an informal employee culture existed within the plant and that both employees and management did not want to violate this culture, but rather reinforce its norms because of the positive outcomes (e.g. high morale, low turnover, absenteeism and grievances). The reciprocity concept that was discussed in the previous paragraph can also be found in Argyris' analysis of the employee culture, when he proposed that employees could reason that, "since management is respecting our self-actualization, we will respect theirs."

Argyris used the term psychological contract when he analysed what he called the passive leadership style of foremen that have worked their way up to their current position. These foremen realized that they had to respect the informal employee culture in order to achieve the goals set by higher management. According to Argyris, the passive leadership style resulted in an employee-management relationship that was dominated by the "psychological work contract." Argyris described the psychological work contract as follows: "Since the foremen realize the employees in this system will tend to produce optimally under passive leadership, and since the employees agree, a relationship may be hypothesized to evolve between the employees and the foremen which might be called the 'psychological work contract'. The employee will maintain the high production, low grievances, etc., if the foremen guarantee and respect the norms of the employee informal culture (i.e., let the

employees alone, make certain they make adequate wages, and have secure jobs” (Argyris, 1960).

Although it was Argyris that first used the term psychological contract in his book, it was a study by Levinson et al. (1962) that, according to Conway & Briner (2005), really elaborated the concept. Levinson et al. (1962) defined the psychological contract as “a series of mutual expectations of which the parties to the relationship may not themselves be dimly aware but which nonetheless govern their relationship to each other.” They described the psychological contract as a product of mutual expectations that has two features. The first feature is the implicit and unspoken nature of the contract and the second feature mentioned by Levinson et al. is that the psychological contracts leads the relationship between employee and employer.

Schein (1965, 1980) is another of the early authors that had an impact on the conceptualization of the psychological contract. According to Schein (1965) ‘the notion of a psychological contract implies that the individual has a variety of expectations of the organization and that the organization has a variety of expectations of him.’ Schein (1965) mentioned that these expectations do ‘not only cover how much work is to be performed for how much pay, but also involve the whole pattern of rights, privileges, and obligations between worker and organizations.’ Schein (1980) suggested that a range of different antecedents such as learning, past experiences, inner needs, traditions and norms shape employer and employee expectations.

According to Taylor & Tekleab (2004) the introduction of the idea of matching employer and employee expectations and emphasizing the importance of the psychological contract as an interaction between two parties were among Schein’s important contributions to the psychological contract literature. Schein (1980) described the concept of matching expectations when he explained that one of the conditions underlying desired employee behavior is: ‘the degree to which their own expectations of what the organization will provide to them and what they owe the organization in return matches what the organization’s expectations are of what it will give and get in return.’ The second contribution that was mentioned above is the importance of taking both parties, involved in the psychological contract, into consideration.

Schein (1980) described the relationship between employer and employee as being interactive and he concluded that ‘we cannot understand the psychological dynamics if we look only to the individual’s motivations or only to organizational conditions and practices.’ Schein also wrote about the possible consequences of not fulfilling the psychological contract. He stated that even though it is unwritten, the psychological contract is a strong determinant for organizational behavior and that violation of certain of its aspects can lead to labor unrest, strikes and turnover.

According to Roehling (1996), incongruence between the expectations of employee and employer expectations was first studied by Kotter (1973), who defines the psychological contract as: “an implicit contract between an individual and his organization which specifies what each expect to give and receive from each other in their relationship”. Kotter introduces the terms ‘match’ and ‘mismatch’ to indicate if employees and employers have shared or different ideas regarding the items of the psychological contract. The results of this study among MBA graduates showed that employees with mostly matches in their psychological contract reported greater job satisfaction, higher productivity and reduced turnover, compared to those employees with more mismatches.

2.2.2.2 Reconceptualization of the concept

The concept of psychological contracts was not widely used until the beginning of the 1990’s. Conway & Briner (2009) speculated on the reasons why the psychological contract was not a research terrain of interest before Rousseau. They suggested that one of the possible reasons was that earlier studies did not succeed in producing a concept that was precise enough, thereby leading to confusion regarding what was part of the psychological contract and what was not. After Rousseau reconceptualised the concept in 1989, the psychological contract was put on the research agenda. During the following years a large amount of articles on psychological contracts were published and a number of academic journals (e.g. the *Journal of Organizational Behavior* in 1998 and 2003) dedicated special issues to the topic.

Almost all of the several hundred articles on psychological contracts adopted Rousseau’s definition (Conway and Briner, 2009). This increased interest in the concept of psychological contracts can be placed in the wider context of the changing nature of the

employment relationship, which has seen a shift from being more collective, towards a more individualized relationship (e.g. McLean Parks et al., 1998, Guest, 1998). Guest (2004) presents several reasons for the necessity of a new framework for studying employment relationships, such as increased flexibility and fragmentation of the workforce, pervasiveness and urgency of change, a more diverse workforce, decline in the number of employees that are covered by collective agreements, more individualism. He suggests that these changes lead to less influence from collective agreements and the existence of more individual agreements.

According to Guest the psychological contract has potential as a broad framework because it is able to study the individuals' employment relationship while focussing on more or less explicit agreements. The psychological contract is an effective tool for studying the employment relationship because these more or less explicit agreements are based on individual perceptions, with the different parties having different understandings about them (Kalleberg & Rognes, 2000). Researchers have used the terms old and new (psychological) contract to indicate the change towards a more individual contract (e.g. Kissler, 1994, Cavanaugh & Noe, 1999).

<i>Old contract</i>	<i>New contract</i>
The organization is “parent” to the “child.”	The organization and employee enter into “adult” contracts focused on mutually beneficial work.
Employee’s identity and worth are defined by the organization.	Employee’s identity and worth are defined by the employee.
Those who stay are good and loyal; others are bad and disloyal.	The regular flow of people in and out is healthy and should be celebrated.
Employees who do what they are told will work until retirement.	Long-term employment is unlikely; expect and prepare for multiple relationships.
The primary route for growth is through promotion.	The primary route for growth is a sense of personal accomplishment.

Table 2.1 Old and new employee contracts (Kissler, 1994)

These changes have also been studied through different career concepts, such as the boundaryless career (Arthur & Rousseau, 1996), which identified an old and new meaning of employment. Table 2.1 compares the old and new employee contract, as defined by Kissler (1994). The changes in the employment relationship have been taking place in an ever-changing (global) environment, in which organizations need to be able to adapt constantly. The psychological contract has received a lot of attention since the beginning of the 1990's because it is a concept that is can be used to effectively study the changed employment relationship and its outcomes (Arnold, 1996). Although there have been a lot of changes to the employment relationship, the perception of which obligations make up the psychological contract has not necessarily changed that much. Schalk (2004) reported that a study, focussing on the perceptions of old and new psychological contracts of a sample of 1331 Dutch employees, did not provide strong support that the old psychological contract had been replaced by a new psychological contract.

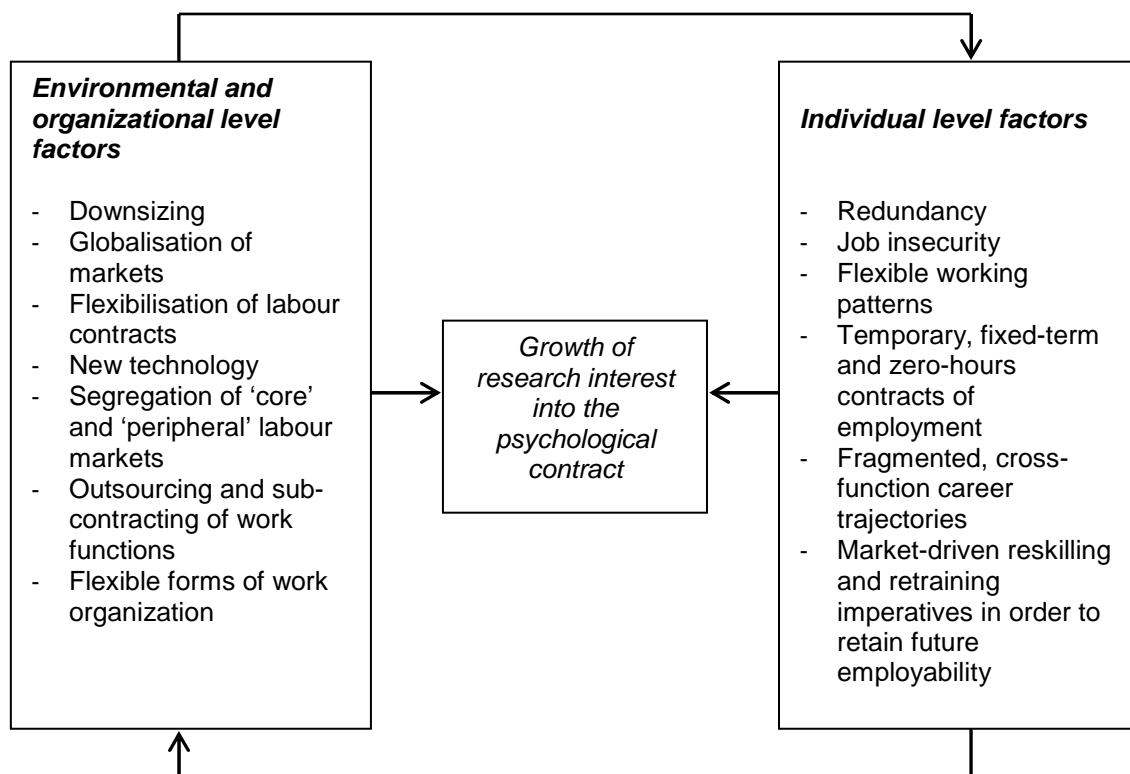


Figure 2.1 Factors influencing growth in psychological contract research (Anderson & Schalk, 1998)

Sturges et al. (2005) suggested that, even though there have been claims about a new deal, employees still hold traditional ideas about how their employer is supposed to help them with their career management. They mention that if the employer is not able to deliver the

promised levels of career management related obligations; there is a good chance that employees will consider the psychological contract as being unfulfilled or breached. Anderson & Schalk (1998) presented an overview of the different factors that have led to more interest in psychological contract research that is represented in Figure 2.1.

2.2.2.3 Definition of the psychological contract

There is no agreed definition of the psychological contract (e.g. Roehling, 1996, Anderson & Schalk, 1998). There is also little indication that there is going to be consensus about a definition (Conway & Briner, 2005). The definition that is used in many studies is that of Rousseau (1995), who defines the psychological contract as “individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization.” One of the explanations for the differences in definitions is the distinction between the different actors that create and share the psychological contract. There are two currents within the psychological contract literature, the unilateral and the bilateral perspectives (Anderson & Schalk, 1998, Freese & Schalk, 2008).

The unilateral current is in line with the definition by Rousseau, conceptualizing the psychological contract as individual beliefs on the exchange relationship between employer and employee, which exists ‘in the eye of the beholder’ (Rousseau, 1989). Individual beliefs implies that every employee has a potentially unique contract, that may be identical or differ noticeably from other employees in the same department, work group, etc. (Taylor & Tekleab, 2004). Rousseau’s reconceptualization of the psychological contract differs from the original definitions by Argyris (1960) and Levinson et al. (1962) that were bilateral. The majority of recent studies on psychological contracts adopt the unilateral current. Guest (1998) pointed out that by adopting a unilateral approach, researchers might be moving too far away from the concept of a contract because there is no longer a two-way reciprocal agreement, which lies at the heart of it. Taylor & Tekleab (2004) described the dominance of the unilateral approach as a kind of vacuum that does not allow the employers’ perspective of the contract to be considered. The consequence of the dominant position of the unilateral approach is that researchers have almost exclusively examined the employee’s perspective (Conway & Briner, 2009).

The bilateral current sees the psychological contract as a construct that exists between both the employee and the employer and focuses on both actors (e.g. Conway & Briner, 2002, Guest, 2004). Herriot, Manning & Kidd (1997) define the psychological contract in line with the bilateral current: “It refers to the perceptions of mutual obligations to each other held by the two parties in the employment relationship, the organization and the employee.”

The problem with focussing on both parties is that it is very difficult to identify the representatives of the organization (e.g. Anderson & Schalk, 1998) and that not all sources are equally weighted or equally credible with regard to the provided information (Turnley & Feldman, 1999). An organization is not one person and even though the employee might have the impression that a psychological contract with specific inducements for both the employee and the organization exists (Robinson & Morrison, 1995), an organizational representative might not share these perceptions, as it is not this person that was involved in the creation and changing of the psychological contract. The problem with the organizational representative is less present for the unilateral approach. The organization is seen as one entity and the perception of employees regarding who the employer actually is, has not been an issue in the psychological contract literature (Coyle-Shapiro & Kessler, 2000).

2.2.2.4 Contract makers

Rousseau (1989) is very clear about who can have a psychological contract: “Individuals have psychological contracts, organizations do not. The organization, as the other party in the relationship, provides the context for the creation of a psychological contract, but cannot in turn have a psychological contract with its members. Organizations cannot “perceive,” though their individual managers can themselves personally perceive a psychological contract with employee and respond accordingly.” In order to have a good idea of all the existing perceptions regarding inducements on the employer side, one will have to include a wide range of potential representatives, at the risk of becoming more of an organizational measure than a psychological contract measure (Guest, 1998).

An overview of the different human and administrative contract makers was given by Rousseau (1995) and can be found in table 2.2. Human contract makers use interaction and observation as mechanisms to influence people and administrative contract makers do this by

giving structural signals and providing documentation. Rousseau (1995) also defines two types of contract makers, principals: “individuals or organizations making contracts for themselves” and agents: “individuals acting for another”. Managers can act as both principles and agents as they can act for themselves or as a representative for the organization.

<i>Human contract makers</i>	<i>Administrative contract makers</i>
Recruiters	Compensation
Managers	Benefits
Co-workers	Career path
Mentors	Performance review
Top management	Training
	Personnel manuals

Table 2.2 Overview of the different contract makers (Rousseau, 1995)

Arnold (1996) points out that the variety in definitions of mutuality in the different studies matter because they have an impact on the type of data that researchers need to collect in order to study the psychological contract. Freese & Schalk (2008) give two reasons for a preference for adopting the unilateral current in psychological contract research. First, the psychological contract is a psychological construct and can therefore only exist in the mind of the individual that perceives it. Second, the definition of the psychological contract implies that the contract has an influence on employee behaviour, but this seems unlikely when all the perceptions of employees and employer regarding their respective obligations have to be taken into account. Unlikely, because the employee will not be able to know all the different perceptions involved.

2.2.3 Expectations, obligations and promises

2.2.3.1 Differences between expectations, obligations and promises

Roehling (1996) characterized Rousseau’s reconceptualization of the psychological contract (1989) as marking a transition from the early studies (e.g. Argyris, 1960 and Levinson et al., 1962) to recent developments in the psychological contract literature. In the previous paragraph we described the differences between the earlier studies and the work in

line with Rousseau's definition of the psychological contract (1989, 1995) regarding the unilateral and bilateral currents.

There are other differences between the earlier studies and the more recent studies. The earlier studies that used the concept of psychological contracts talk about expectations (e.g. Levinson et al., 1962). Expectations can be anything that the employee expects to get from the employer (Conway & Briner, 2009). Although all psychological contracts include expectations regarding future behavior of the parties involved, that does not mean that all expectations are contractual (Rousseau & McLean Parks, 1993, Rousseau & Tijoriwala, 1998). The reason for this is that expectations are not necessarily invested with a promissory interpretation (Millward & Brewerton, 2000). This also has consequences for the behavioural outcomes of the psychological contracts as unfulfilment of expectations is of another order than unfulfilment of obligations (Guest, 1998). One can then ask what qualifies as a psychological contract.

The psychological contract is about the belief what the employer is obligated to provide, based on perceived promises of reciprocal exchange (Robinson & Rousseau, 1994). Promises can be explicit or implicit (Morrison & Robinson, 1997). They can be verbal or derived from observations of co-workers and organizational practices (Rousseau & Schalk, 2000). Most of the recent research has focused more on spoken or written promises and less on organizational practices and management actions (Rousseau, 2001). The focus on promised based obligations is central in Rousseau's definition (1989): "the term psychological contract refers to an individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party. Key issues here include the belief that a promise has been made and a consideration offered in exchange for it, binding the parties to some set of reciprocal obligations."

According to Guest (1998) it is sometimes difficult to identify all the exchange-based promises of a psychological contract, as these might be implicit in nature. He adds that certain promises might lead to relevant expectations. Because these expectations are not taken into account when using Rousseau's definition, Guest argues that Rousseau's conceptualization might lead to a psychological contract that is actually very much alike the employment contract that was signed by the employer and employee. The distinction between expectations and promises can also be made for promises and obligations, when the perceived obligation is

based solely on experiences in previous employment relationships (Morrison & Robinson, 1997). This means that only perceived obligations that are the result of implicit or explicit promises can be part of the psychological contract (Conway & Briner, 2005).

There has been some discussion about the distinction between the use of expectations in the early studies and the current conceptualization of obligations (e.g. Roehling, 1996, Taylor & Tekleab, 2004). Two empirical studies (Robinson et al., 1994, Robinson, 1996) report higher predictability for promised-based obligations than for expectations. However, the problem with these comparisons in predictability is that both sets of predictor variables were not equally specific or general in nature and that there were more items measuring obligations than expectations (Taylor & Tekleab, 2004).

Another difference between the earlier studies and the more recent studies is that Rousseau proposed the concept of contract unfulfilment or violation as a mechanism of relating the psychological contract to attitudes and behavior that is related to the work setting (Conway & Briner, 2009). The unfulfilment or violation of the psychological contract occurs when the employer or employee does not deliver the promised (levels of) obligations. One of the reasons for this might be what Morrison & Robinson (2004) call obligation incongruence, which expresses the difference of employer and employee perceptions regarding promised inducements and contributions. Although employers and employees might disagree on the specific obligations that make up the psychological contract, this seems not to be the case in most situations.

In a global sense, employers and employees have similar ideas as to what kind of obligations are included in the psychological contract, but they disagree on the ranking or importance of the these obligations (Herriot et al., 1997). The concept of breach as a phenomenon that occurs when delivered inducements do not meet the promised levels has received criticism over the last ten years, because researchers have identified perceptions of psychological contract breach for both deficient and excess fulfilment (e.g. Lambert et al., 2003, Montes & Zweig, 2009). The concepts of contract fulfilment, contract breach and contract violation are discussed in paragraph 1.5.

2.2.3.2 How psychological contracts are formed

Psychological contracts are dynamic (Robinson et al., 1994, Thomas & Anderson, 1998). Schein (1980) suggested that psychological contracts change over time because the needs by the employer and employee evolve. The psychological contract is negotiated during the pre-employment stage and will continue to develop during the employment relationship (De Vos et al., 2009). Although more recent work on psychological contracts has a more restricted view on what the psychological contract is (e.g. obligations between current employer and the employee instead of expectations by the employee) and will therefore have a smaller scope regarding what shapes the psychological contract, it is very difficult to make a distinction between employee beliefs shaped by the company and beliefs not shaped by the company (Conway & Briner, 2005).

According to Turnley & Feldman (1999) employees create their side of the psychological contract with the input from three main sources. These are (1) the specific promises made to the employee by the organization's representatives, (2) the employees' perception of the organizational culture and common practices and (3) the employees' expectations of how the organization operates. According to Rousseau (2001) pre-employment experiences, recruiting practices and early on-the-job socialization largely activate the antecedents of the psychological contract. She compares the psychological contract to a schema or mental model and suggests that prior beliefs, based on discipline of origin or training are a factor that can shape a psychological contract. Rousseau referred to the work of Bunderson (2001), who identified an administrative and professional work ideology, which influenced the employer obligations that employees would mention.

Recruiting practices and the conditions at the moment the employee was hired, are another factor that can shape the psychological contract. When organizational representatives, who are responsible for the recruitment process, change it is possible that some of obligations that are communicated by that representative differ from his or her predecessor. The third origin that was mentioned by Rousseau (2001) is the on-the-job socialization. This phase in the employment relationship is important because it will determine how the new employee is able to fill in the gaps of information regarding the psychological contract. The employee will be able to further develop their understanding of the mutual obligations that make up the psychological contract with the help from co-workers, supervisors and other managers. When

the employees' experiences are in line with the beliefs that the schema holds, the construct will reach a level of completeness (Rousseau, 2001).

Rousseau & Wade-Benzoni (1994) regroup some of the three origins of psychological contract antecedents using the concept of HR practices. They suggest that the way that jobs are advertised, the image of the organization that is communicated during recruitment, the feedback that is given during performance appraisals and the compensation and benefits scheme all send signals to the employee regarding employer and employee obligations.

2.2.3.3 How psychological contracts evolve

The obligations included in the psychological contract are not static and likely to be re-negotiated over time (Schein, 1980), with re-negotiations being influenced by a variety of contextual factors (Guest, 2004). Rousseau (2001) reported that experts and novices have different schemas. She mentions that experts have more accurate schemas that contain more elements and are better able to apply their schemas to changed circumstances. This implies that the psychological contract of new employees and of employees that have been working for the organization for a longer period of time, likely to be different.

Several studies have found a difference between employees at the time of recruitment and after a certain period of time (e.g. Rousseau, 1990, Thomas & Anderson, 1998). Rousseau (2001) also stated that the more complete schemas tend to resist change more than incomplete schemas. A number of factors influence the formation and change of the psychological contract. Rousseau & Schalk (2000) presented a framework with the different key contexts for psychological contracting. The adapted version of this framework (Schalk, 2004) is depicted in figure 2.2. According to Schalk, there are three types of changes to the employment relationship and the psychological contract; societal, organizational and individual. Societal changes can be the result from changes in the economy, the legal system and other changes within society, such as cultural norms.

Schalk & Rousseau (2000) suggest that society affects psychological contracts through two dimensions. The first dimension refers to the resources that societies make available to employees and employers. Community life can include education. Societal values may influence organizational practices, such as structure and compensation and benefits schemes.

The second dimension refers to legitimacy constraints that a society places on the variety of behavior and activities that are available to employees and employers. These constraints or regulations can exist in different forms, such as laws, supporting or constraining markets by governments, empowering or impeding of collective bargaining. The societal aspects can be seen as the context in which the organizational and individual changes take place because it shapes the setting in which the employment relationship will take its form.

Schalk (2004) states that there are two ways in which society influences the employment relationship. Firstly, employment relationships, and the room that parties have when they are being negotiated, are determined by the characteristics of the formal and informal institutions that exist within each society. Secondly, employment relations are made up of two types of agreements. The first type consists of stable agreements that do not really change over time and that are not influenced by developments outside of the employment relationships. The second type is more permeable to changes in society and will evolve with changes outside of the employment relationship. According to Rousseau (2001), the different representatives of the organization can have multiple and divergent motives that can influence development and change of the psychological contract. In conclusion, the perceptions that form the psychological contract can be influenced by a wide variety of sources. Conway & Briner (2009) go as far to say “almost anything can in principle influence employees’ beliefs about their psychological contract.”

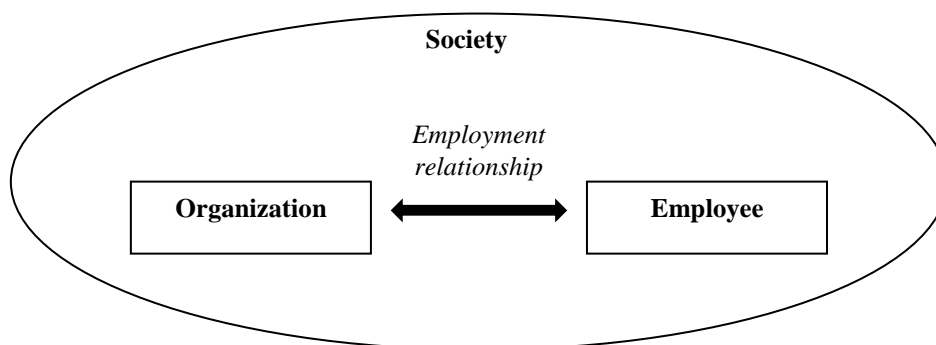


Figure 2.2 Framework society, organization and employee (Schalk, 2004)

2.2.3.4 Psychological contract change

Both the employer and employee have their own perspective on the employment relationship, which can change as time goes on. An organization might need different skills or

more flexibility because of increased competition from other companies. This can lead to a change in perceived obligations from an employer point of view. Another form of organizational change that might lead to discrepancies regarding the psychological contract is a change in supervisor (Turnley & Feldman, 1999).

The employee can also have a change in perceived employer/employee obligations. Robinson et al. (1994) studied the change in obligations during the first two years of employment of a group of masters in business administration alumni and their data suggested that the employees perceived that employee obligations towards the employer declined over the two-year period while the employer obligations increased. Thomas & Anderson (1998) reported that new British army recruits perceived more employer obligations after an 8-week period, and that these changes were shaped by a better understanding of the environment by the recruits. De Vos et al. (2003) found that employees change their perceptions of both employer and employee obligations based on their perception of delivered employer inducements.

2.2.4 Types of psychological contracts and contract assessment

2.2.4.1 Types of psychological contracts

Employees of different companies, from different cultures, working in different jobs can all have unique psychological contracts. Even within one company, employees working in the same job can be working on different types of contracts, such as employees and temporary or contingent workers. These different types of employees are likely to have psychological contracts including different types of obligations (McLean Parks et al., 1998). This is not surprisingly as the status of the employment contract will have an impact on the way that employees view their employment relationship (Coyle-Shapiro & Kessler, 2002b). A temporary worker will have different priorities than someone that has been working for the same company for the last twenty years.

As there are a lot of different types of employment relationships, there will be a lot of different types of psychological contracts. In the following paragraphs we will present a few of these different kinds of employment settings. Because the psychological contract is

different according to the specific context of study, measurement of the contract can be an issue. Many researchers have proposed measurement tools in order to examine the psychological contract.

2.2.4.2 Different ways of examining the psychological contract

There are different ways to measure psychological contracts. In a review of the different quantitative and qualitative assessment methodologies that are used in the psychological contract literature, Rousseau & Tijoriwala (1998) presented a framework for psychological contract measurement, containing three forms:

- 1 *Feature-oriented*: measures that compare the psychological contract to some attribute or dimension (Freese & Schalk, 2008), that capture the properties associated with a contract (Rousseau & Tijoriwala, 1998). Paragraph 2.3 is dedicated to the features of psychological contracts.
- 2 *Content-oriented*: content measures study parts or the whole of the reciprocal obligations that make up the individual's psychological contract. Psychological contract contents are discussed in paragraph 2.4.
- 3 *Evaluation-oriented*: these measures typically compare the actual (levels of) delivered inducements with those that were promised. Paragraph 2.5 discusses psychological contract evaluation.

2.3 Psychological contract features

2.3.1 The features of psychological contracts

Research that studies the features of psychological contracts, aims to identify certain common characteristics that these contracts share across individuals, organizations, etc. One of the reasons for researchers to try and identify common characteristics is that they can potentially be generalized to a large sample. The characteristics, or properties, are not dependent on the specific contract terms, the psychological contract contents (Rousseau & Tijoriwala, 1998). The contents of the psychological contract may contain thousands of items

(Kotter, 1973) and are therefore difficult to identify. As this large amount of specific contract terms is also highly individual, and therefore subjective (e.g. McLean Parks et al., 1998, Willem et al., 2010), it is difficult to generalize content measures to larger samples (Shore & Barksdale, 1998, Sels et al., 2004). By identifying common characteristics, the researcher no longer studies the individual contents, but will focus on wider dimensions or attributes (Rousseau & Tijoriwala, 1998, Freese & Schalk, 2008), in order to identify different kinds of psychological contracts.

Feature measures have been used less often than the other two types of psychological contract assessment: content and evaluation measures (e.g. Janssen et al., 2003, Sels et al., 2004). With the exception of the distinction between relational and transactional contracts, most conceptualizations of psychological contract features only appear in one study (Freese & Schalk, 2008).

2.3.2 *Relational versus Transactional contracts*

2.3.2.1 Origin of relational and transactional contracts

The distinction between relational and transactional contracts has dominated psychological contract research focusing on contract features (Conway & Briner, 2005). The use of relational and transactional contracts was first made by MacNeil (1974, 1980), who presented a set of behavioural concepts that were placed on an axis that ran from a transactional end to a relational end, and was later used by Rousseau (1990) in psychological contract research.

Transactional contracts are contracts that include specific monetizable exchanges, are narrow in scope, often short-term and finite in nature (Rousseau & McLean Parks, 1993, Robinson et al., 1994). Relational contracts are not finite but open-ended, include less specific exchanges, and are aimed at establishing and maintaining a relationship between parties, which means that these contracts are subject to change due to ever developing contexts and continued interactions between employer and employee (Rousseau & McLean Parks, 1993, Robinson et al., 1994).

MacNeil (1974) sets relational contracts apart from transactional contracts by stating that only relational contracts include “whole person relations, relatively deep and extensive communication by a variety of modes, and significant elements of non-economic personal satisfaction” (p. 723). Guest (2004) suggested that formal transactional agreements will be made at the beginning of the employment relationship by organizational representatives like HR managers, while relational agreements will be made with representatives such as the immediate boss, after someone has started working for the company.

The distinction between transactional and relational contract elements has been supported in a number of studies. Two separate factor analysis in a longitudinal study by Rousseau et al. (1994) have identified rapid advancement, high pay, and performance based pay as transactional employers’ obligations, while long-term job security, training, and development were identified as relational employers’ obligations. Even though some employment relationships might be purely transactional or relational, most employment relationships can probably be found somewhere in between the two extremes of the continuum (Kalleberg & Rognes, 2000).

2.3.2.2 Differences viewed through 5 dimensions

Rousseau (1990) presented an overview of five dimensions, initially identified by MacNeil (1985), on which transactional and relational contracts differ. The slightly adapted version by Rousseau & McLean Parks (1993) is represented in table 2.3. The five dimensions are focus, time frame, stability, scope and tangibility of the contract. Focus refers to the economic and socio-emotional aspects of the contract that are important to the employee (Anderson & Schalk, 1998). A transactional contract will have a focus on monetizable exchanges, while a relational contract will also include socio-emotional exchanges, such as status, loyalty and support. The assumption by Rousseau & McLean Parks was that both types will have a fairly high focus on economic exchanges and that the difference between transactional and relational contracts can be found by studying the variance in focus on socio-emotional exchanges (McLean Parks et al., 1998).

Time frame refers to the duration of the contract. Transactional contracts are normally fixed-term contracts with a specific duration and a known end date. Stability concerns the

extent to which the psychological contract inducements are fixed or evolving (McLean Parks et al., 1998), with transactional contract being stable, static, and inflexible. If there are any changes to a transactional contract, it is likely that there will be a renegotiation, as short term contracts tend to be very explicit about the terms of the contract. Contrary to transactional contracts, relational contracts are instable, dynamic, and the management and coordination of work demands extensive flexibility from both parties (Rousseau & McLean Parks, 1993).

	<i>Transactional</i>	<i>Relational</i>
<i>Focus</i>	Economic Extrinsic	Economic Socio-emotional Intrinsic
<i>Time frame</i>	Close-ended Specific duration	Open-ended Indefinite duration
<i>Stability</i>	Static	Dynamic
<i>Scope</i>	Narrow	Pervasive and comprehensive
<i>Tangibility</i>	Public Easily observable	Subjective Understood

Table 2.3 Contractual continuum (Rousseau & McLean Parks, 1993)

Scope reflects the influence of work on the identity and self-esteem of the employee (Anderson & Schalk, 1998). As the transactional contract is much more specific and limited in involvement regarding for instance emotional ties and loyalties (Rousseau & McLean Parks, 1993), it is more likely that the relational contract will be more related to the employees' private life. An example of a transactional contract would be a student that works three shifts a week at a fast-food restaurant. After the shift is over, it is likely that the student will change clothing and pick up his/her normal student life, until the next shift starts. There is a sharp distinction between the job and private life. An example for a relational contract with a wider scope would be a university professor. This person will be expected to show some degree of continuity regarding his/her behavior in their private life, because this is expected of their position. At the same time it will be normal for a professor to be present at meetings outside of normal working hours, or to bring work home during weekends or holidays. The sharp distinction between work and private life that the student has, no longer exists and as

described by McLean Parks et al. (1998), the boundary between the employment relationship and other aspects of one's life are permeable.

Tangibility refers to the clarity of the exchanged responsibilities between the two parties. A transactional contract will generally be clear with unambiguous exchanges. The previously discussed dimensions stability and time frame imply that the transactional contract is tangible, in the sense that the employee and third party observers can easily understand the specific exchanges, without having company specific insights. The changing character of tasks and obligations over a longer period make the relational contract less tangible.

2.3.2.3 Discussions on measures, outcomes and stability of scales

Rousseau (1990) conceptualized the transactional and relational contracts as opposites on the same continuum that underlies contractual arrangements. This implies that a psychological contract can be classified as transactional, relational, or moving somewhere along the axis between the two extremes (Rousseau & McLean Parks, 1993). Although the psychological contract can indeed contain both transactional and relational exchanges, they are nowadays conceptualized as independent dimensions of the contract, rather than two opposites of a continuum (Taylor & Tekleab, 2004, Conway & Briner, 2005). Measures that were used after the early studies conceptualize the two as separate dimensions (Guzzo et al., 1994, Robinson et al., 1994, Cavanaugh & Noe, 1999).

Kalleberg & Rognes (2000) reported that employees with a more relational employment contract showed more commitment to their organization, were less likely to change employers and were more satisfied with their jobs. Raja, Johns & Ntalianis (2004) studied the relationships of both relational and transactional contracts with the outcome variables intentions to quit, job satisfaction and affective commitment. They found that relational contracts were positively related to job satisfaction and affective commitment, and that transactional contracts were positively related to intentions to quit.

According to Arnold (1996) there is need for clarification concerning the distinction between transactional and relational contract inducements. He gives the example of training to show the instability of the factor structures that were found when studying transactional and relational contracts. This obligation loaded on the transactional dimension in a study by

Rousseau et al. (1990). However, in a study by Robinson et al. (1994) it loaded on the relational dimension. In another study, Coyle-Shapiro & Kessler (2000) found a three-factor structure, with training obligations being the third factor after transactional and relational obligations. The authors suggested that, although their findings were not showing the two-factor structure that other studies had found, these findings were in line with the conclusion by Arnold (1996) and Roehling (1996), that previous empirical studies did not give a stable factor structure regarding the obligation training.

Rousseau & Tijoriwala (1998) suggest that dramatic changes in the employment relationship have possibly lead to a new perception of obligations, in which an obligations that was previously characterized as being relational could now be perceived as being transactional, and vice versa. According to Taylor & Tekleab (2004), the search for stable transactional-relational scales has not yet reached the point where the two-dimensional structure will be found structurally across different samples. The authors suggest that it is therefore not surprising that other researchers have started to look for other ways to conceptualize the psychological contract features. The frameworks proposed by Tsui et al. (1997), Shore & Barksdale (1998) and De Cuyper et al. (2008) are part of an alternative way of conceptualizing psychological contract features and will be discussed in the next paragraph.

2.3.3 Different types and dimensions of psychological contracts

2.3.3.1 Transactional, relational, balanced and transitional contracts

Rousseau & Wade-Benzoni (1994) proposed a framework with four different types of psychological contracts. This framework is based on two contract terms that according to the authors are important aspects of the contemporary employment relationship. These two contract terms are time frame and performance requirements. Time frame refers to the time span of the relationship and can be divided in short-term versus long-term contracts. The contract term time frame that was used by Rousseau and Wade-Benzoni resembles the dimension time frame that Rousseau & McLean Parks (1993) used to identify differences between transactional and relational contracts. Transactional contracts will normally be short-term and relational contracts will usually be long-term contracts.

Performance requirements indicate how specific the performance demands are as a condition of employment. Rousseau & Wade-Benzoni (1994) identified well-specified and weakly specified contracts. Well-specified performance requirements generally indicate a more transactional contract and weakly specified performance requirements will normally indicate a relational contract. Rousseau & Wade-Benzoni placed the two contract terms in a 2 times 2 framework, which identifies four types of psychological contracts: transactional, relational, balanced and transitional contracts. The framework is depicted in figure 2.3.

Rousseau & Wade-Benzoni conceptualized balanced contracts as a mix of transactional and relational contract terms. These contracts are open-ended and relationship orientated with well-specified performance terms that are subject to change over time. An example of a work setting in which we would be likely to find balanced contracts, is a high-involvement team working on a specific project. A study by Hess and Jepsen (2009) concluded that respondents from a sample of 287 employees from multiple industries reported higher levels of balanced employer obligations, such as career development and wide scope of responsibility, than relational or transactional obligations.

The transitional contract was described as a “no guarantees” contract (Rousseau & Wade-Benzoni, 1994), because there is no commitment from the employer regarding the duration of the employment relationship and little or no performance demands. These kinds of contracts are usually found in organizations that are in a significant transition from a known strategy to a new and uncertain one, for instance after a merger or during organizational resizing. Transitional contracts are not a psychological contract form like the other three, but represent a state of change that results in a certain deterioration of the previous terms of the employment relationship (Rousseau, 2000, Chun et al., 2004).

McLean Parks & Smith (1998) added the dimension particularism to the group of five dimensions that were presented by Rousseau & McLean Parks (1993). Particularism refers to the extent to which the employee perceives the inducements to be unique and, more importantly, non-substitutable. According to the authors a unique status or reputation, that cannot be found elsewhere, can become part of the exchange relationship and the loss of that reputation can even be interpreted as psychological contract breach. McLean Parks et al.

(1998) added an additional two dimensions, multiple agency and volition, to better measure the psychological contracts of contingent workers, such as temporary workers.

		<u>Performance terms</u>	
<u>Duration</u>		<i>Specified</i>	<i>Not specified</i>
<i>Short term</i>	Transactional	Low ambiguity, easy exit/high turnover, low member commitment, freedom to enter new contracts, little learning, weak integration/identification	Transitional
			Ambiguity/uncertainty, high turnover/termination, instability
<i>Long term</i>	Balanced	High member commitment, high integration/identification, ongoing development, mutual support, dynamic	Relational
			High member commitment, high affective commitment, high integration/identification, stability

Figure 2.3 Types of psychological contracts (Rousseau, 1995)

Multiple agency refers to the situation in which an employee simultaneously fulfils obligations to two or more employers. An example would be the temporary worker that has to fulfil obligations towards both the temping agency and the hiring firm. McLean Parks et al. (1998) define volition as “the degree to which employees believe they had choice in the selection of the nature of the employment relationship, including, but not limited to, the degree to which they had input or control into the terms of the contract or formation of the ‘deal’.” Before accepting a job, a candidate can be in a position to negotiate their future inducements. The candidate might have certain specific skills or competences. This would be volition. Another candidate may lack skills or may not be in the position to negotiate, for instance due to the absence of other job offers. This candidate would not have volition.

2.3.3.2 Ideologies underlying different forms of work

Bunderson (2001) proposed a distinction between administrative and professional psychological contracts. This distinction is based on the different ideologies underlying the professional and administrative forms of work. Although Bunderson did not use the

dimensions of transactional and relational contracts in order to make a distinction between two types of contracts, he did identify administrative contracts as being predominantly transactional in nature. Professional contracts are predominantly relational in nature. Professional contracts will have administrative and professional role obligations because a professional employee will interact with their organization in both an employee role and a professional role. An overview of the different obligations for organization and employee can be found in table 2.4.

	<i>Administrative</i>	<i>Professional</i>
<i>Organizational role obligations</i>	To provide money, clients, administrative support (removal of administrative headaches), market presence	To provide a collegial work setting, defense of professional autonomy and standards, community outreach
<i>Individual role obligations</i>	To provide continued employment, fulfilment of formally specified role obligations (e.g., attendance, certification)	To provide identification, loyalty, fulfilment of generalized role obligations (e.g., excellent client service, productivity)

Table 2.4 Administrative ad professional role obligations (Bunderson, 2001)

Kalleberg & Rognes (2000) found that full-time employees in a supervisory position and in higher prestige occupations, active on the Norwegian labour market, had more relational aspects in their employment conditions. Instead of the five dimensions that were proposed by MacNeil (1985) and Rousseau (1990), they identified five, related, dimensions that were communication, compensation, time frame (time frame in previous dimensions), investment (scope) and change (stability). Kalleberg & Rognes argue that organizations are more likely to offer relational inducements to employees that have key resources and skill sets that make them valuable to the organization.

Sels et al. (2004) suggested a theoretically developed, six-dimension feature measure, that is based on the framework by Rousseau & McLean Parks (1993) and that studies the dimensions time frame, tangibility, scope, stability, contract level and exchange symmetry. The dimensions contract level and exchange symmetry originate from the industrial relations literature and are based on the assumptions that employers might be able to dictate the

inducements included in the psychological contract and that there might be an impact from other parties, such as (local) governments, unions and representative bodies on the nature of the employment relationship. Contract level indicates the degree to which the employee perceives the employment relationship to be individually or collectively regulated and exchange symmetry refers to the extent to which the employee perceives his/her unequal employment relationship to be acceptable (Sels et al., 2004).

2.3.4 Degree of balance and level of obligation

2.3.4.1 Four types of exchange relationships

Shore & Barksdale (1998) wanted to “move away from the focus in the literature on contract terms” and proposed a framework with four types of exchange relationships, which is depicted in figure 2.4. These four types of relationships are based on two ideas from the social exchange theory, the level of obligation and the degree of balance. Shore and Barksdale adopted the unilateral current (e.g. Anderson & Schalk, 1998) for their study, measuring employee perceptions. The level of obligation refers to the level of inducements. Both employer and employee obligations can be high or low.

		Employer obligations	
		High	Moderate to low
Employee obligations	High	<i>Mutual high obligations</i>	<i>Employee over-obligation</i>
	Moderate to low	<i>Employee under-obligation</i>	<i>Mutual low obligations</i>

Figure 2.4 Four types of exchange relationships (Shore & Barksdale, 1998)

According to the reciprocity norm (Gouldner, 1960) an employee will return high levels of obligations offered by the employer. This means that low levels of employee obligations suggest that the employer did not deliver high levels of obligations. Shore & Barksdale (1998) suggested that low levels of employee obligations (under-obligation) could be the result of the employees’ perception of psychological contract breach. The degree of

balance indicates to what extent the obligations for both employer and employee are equal. The two types of balanced exchange relationships are mutual high and mutual low obligations. Blau (1964) argues that the parties in an exchange relationship will tend to strive for balance. Shore & Barksdale (1998) reported that the majority of their sample of part-time MBA students had a balanced contract and that the mutual high obligation type of relationship showed the highest levels of effective commitment, perceived organizational support (POS), career future and the lowest levels of turnover intentions.

2.3.4.2 Further development of the four types

De Cuyper et al. (2008), using Shore & Barksdale's typology, measured higher levels of organizational commitment, job and life satisfaction, and lower levels of psychological contract violation for the mutual high obligation type contracts. Tsui et al. (1997) also studied balanced and unbalanced exchange relationships and suggested a framework defined from the employer's perspective that is close to the framework by Shore & Barksdale (1998). Tsui et al. noted that the balanced exchange relationships accounted for about two thirds of their sample. Their conception of mutual high obligations (mutual investment relationship) showed the highest levels on a number of outcome variables, such as performance, organizational citizenship behavior and intent to stay with the organization. Unlike the other studies, De Cuyper et al. (2008) concluded that, even though the biggest group had a mutual high obligation type contract, the majority of employees in their sample of temporary workers had an unbalanced contract. This suggests that sample characteristics might lead to different conclusions regarding how the different types of exchange relationships are represented within samples.

<i>Shore & Barksdale (1998)</i>	<i>Tsui et al. (1997)</i>
Mutual high obligations	Mutual investment relationship
Mutual low obligations	Quasi-spot contract
Employee over-obligation	Employer under-investment
Employee under-obligation	Employer over-investment

Table 2.5 Comparison of typologies by Shore & Barksdale (1998) and Tsui et al. (1997)

There are two types of unbalanced exchange relationships. These are employee over and under-obligation. Employee over-obligation refers to a situation where the employee has higher levels of obligations towards the employer than the employer has towards them. Employee under-obligation is the opposite of over-obligation and occurs when employer obligations are high, while the employee obligations are low. Shore & Barksdale (1998) reported that employee under-obligation showed the lowest levels of affective commitment, POS, career future and the highest levels of turnover intentions. De Cuyper et al. (2008) linked a relational/transactional content perception to the balance dimension of the exchange relationships that were defined by Shore & Barksdale (1998).

Using the description by Tsui et al. (1997), who mention that the Mutual investment relationship has both open-ended contributions from employees and employers, De Cuyper et al. (2008) suggest that the mutual high and mutual low obligations represent relational and transactional contracts. Their results show that the mutual high contract shows a high exchange of relational and transactional obligations for both employers and employees and that this exchange is much lower for the mutual low obligation contract. Furthermore, relational employee obligations are lowest for the employee under-obligation contract.

2.3.4.3 Discussion on the concept

Although Shore & Barksdale (1998) wanted to focus on more general aspects of the exchange relationship to study the psychological contract, their framework could possibly be seen as an alternate way of explaining psychological contract breach, with mutual high obligations representing fulfilment and the other three types representing employer, employee or mutual breach (Conway & Briner, 2005). Janssen et al. (2003) argue that Shore & Barksdale's conceptualization has two potential weaknesses. The first weakness is that the conceptualization may be too general. Janssen et al. suggest that one could differentiate between for instance the dimension time frame and scope, even within one type of psychological contract. The second weakness put forward by Janssen et al. is that the argument by Shore & Barksdale, that unbalanced contracts occur less frequently and are temporary, does not necessarily hold when studying samples other than MBA students, because those employees might not have the power to re-negotiate contracts or change employers.

2.4 The contents of the psychological contract

The second concept in the framework for psychological contract measurement (Rousseau & Tijoriwala, 1998) is the contents of the psychological contract. The contents refer to parts or the whole of the reciprocal obligations that make up the individual's psychological contract.

2.4.1 Content measures

2.4.1.1 Psychological contract contents research

The contents of the psychological contract are the employer and employee promises that make up the psychological contract. Because the emphasis is on the employee's perception of promises, the contents of the psychological contract do not refer to the actual exchange (Conway & Briner, 2009). Rousseau (1990) defines the contents of the psychological contract as 'expectations of what the employee feels she or he owes and is owed in turn by the organization.' After psychological contract evaluation, the contract contents are the second most heavily studied aspect within the field of psychological contract research (Conway & Briner, 2005). Researchers are interested in content measures because they offer insights into the specific inducements that make up the psychological contract (Sels et al, 2004).

Anderson & Schalk (1998) state that most employees seem to be capable to describe the content of their psychological contract. The contents are an aspect of psychological contracts that can trigger particular employee responses (Chun et al., 2004). Chun et al. suggest that because high levels of broad promises are related to more relational and balanced contracts that the employee would in such a case respond by engaging in behaviors that are of benefit for the organization. A contract with low levels of promises, or a narrow set of promises would likely show the opposite effect from employees, since it would relate to a more transactional dimension of the psychological contract. Besides the employees' perceptions regarding the expectations included in the psychological contract, a researcher can examine the employers' perceptions, but also examining both employer and employee expectations is a possibility (Rousseau & Tijoriwala, 1998).

The focus on expectations means that the actual (level of) delivery on promised inducement falls outside of the scope of study; only the promises are examined (Conway & Briner, 2005). Although the widely used conceptualization by Rousseau (1989) describes a “reciprocal exchange agreement”, most empirical studies focus on employer obligations only (e.g. Sels et al, 2004). Studies examining contents usually look at the antecedents of the contract or study the relationships between specific contents and outcomes. Conway & Briner presented several frameworks to explain how the contents of the psychological contract influence employee behavior.

The first explanation is that the psychological contract items represent a goal structure for both the short and longer term. Items represent requirements and rewards for short-term goals, such as being rewarded for an exceptional performance. They can however also be more focused on long-term goals, such as career development. According to Conway & Briner, this goal structure gives employees more insight as to how they can achieve goals, which in turn increases motivation.

Another explanation stated by Conway & Briner is the level of balance between the employer and employee obligations. If there is no balance between both sets of content items, one or both parties will probably move to terminate the employment relationship (Shore & Barksdale, 1998). Since there is not one single structure of contents that researchers agree on, the psychological contract literature shows different conceptualizations of content measures (Freese & Schalk, 2008). An example from psychological content studies is the description that was used for the items that make up the psychological contract. Were Rousseau (1990) used the term obligations, Guzzo et al. (1994) used the description what the employer should provide, and Rousseau (2000) used the terms commitment and obligation.

There is also diversity in the methods used to design content measures, such as interviews with employee and organizational representatives like human resource managers, administering open-ended questionnaires to employees, and using existing theoretical work (Thomas & Anderson, 1998). Most of the content research is quantitative in approach. Some studies, like Rousseau (1990) have organized interviews to develop the questionnaire that was subsequently sent to respondents. The studies by Herriot et al. (1997) and Conway & Briner (2002) are among the few studies that have adopted a qualitative approach. The study by Herriot et al. (1997) is presented in the following section. The study by Conway & Briner

(2002) is not presented here, as they only studied the psychological contracts items that were under or over fulfilled.

Rousseau & Tijoriwala (1998) mention three ways in which quantitative research on the contents of psychological contracts has been conceptualized. The first two are specific terms and composites of terms. These focus on dimensions or elements of an individual employee's contract and examine parts of the psychological contract. Terms refer to specific employer and employee obligations that the employee perceives. An example item could be 'to hold employee consultation on matters which affect them' that was defined by Herriot et al. (1997). Their psychological contract measure is presented in section 2.4.2.1. Composites of terms refer to the research of latent variables that have been identified using techniques such as exploratory factor analysis on a group of items of terms. Several studies that involve the composites of terms are presented in paragraph 2.4.4. The third way of operationalizing uses nominal classifications, such as relational, transactional and balanced, and examines the entire psychological contract.

2.4.1.2 Criteria, pros and cons regarding content measures

There are a number of disadvantages regarding content measures. The psychological contract contents measures are often not generalizable (Janssens et al., 2003). The reason for this is that these measures, and the measures focussing on terms in particular, are very specific and context dependent. The content research using nominal classifications has the advantage that it shows which dimension is contingent within a certain employment relationship, but has the disadvantage that it is not specific enough when it comes to the content terms or items (Rousseau & Tijoriwala, 1998). According to Conway & Briner (2005), assessing employer and employee items as independent constructs is an important limitation of content measures, because the concept of reciprocity is not addressed.

The focus of content measures is therefore not on the exchange processes between the employer and employee inducements within the bigger context of the dynamics of psychological contracting, but on identifying the specific inducements. Using a more general view of content measures, Conway & Briner (2009) talked about current shortcomings of content studies. They suggested that most of the research aimed at identifying the antecedents

of contract contents fails to explain the mechanisms of implicit promises, because the questionnaires that are used more or less push the participants towards the more explicit promises. Regarding the studies that examine the possible relationships between contract contents and outcome variables, Conway & Briner suggested that the mechanisms of social exchange and mutuality that are used to link content and outcomes might easily be confused with perceived psychological contract breach.

Freese & Schalk (2008) published a review of psychological contract measures and presented three criteria for content measures. First, a psychological contract measurement has to be theory-based or inductively developed. Researchers have to indicate where the items that they included in their questionnaire came from. According to Freese & Schalk many studies on psychological contracts do not explain the origin of the measured contract items or why existing questionnaires were changed.

Second, a psychological contract measurement should assess mutual obligations/promises. Freese and Schalk state that a psychological contract is per definition an exchange relationship and therefore both perceived employer and perceived employee obligations must be included in any content measure that examines the psychological contract. This is in line with Schein (1980) who stated that one couldn't understand the dynamics of the psychological contract by only focusing on either employer or employee. When looking at a selection of the studies that are described in this paragraph, we can conclude that the measure by Rousseau (1990) does indeed measure mutual promises. Most of the other measures do not assess mutual obligations or promises but other aspects, such as employer practices (Guzzo et al., 1994), employer obligations (Schalk et al., 1995), breach and violation (Herriot et al., 1997), expectations towards the employer (Thomas & Anderson, 1998), indirect measure (Millward & Hopkins, 1998).

Third, the psychometric properties of the psychological contract measurement and the appropriateness for the sample have to be assessed. If a questionnaire was not used for a specific sample before, it is necessary to perform a pilot study in order to see if the items included in the questionnaire are relevant for the participants' context.

2.4.2 Employer and employee perceptions of contents

2.4.2.1 Perceptions of both parties

There are only a few studies that have examined the perceptions of both employers and employees regarding the contents of the psychological contract. The qualitative study by Herriot et al. (1997) is referred to as the most thorough study of the contents of the psychological contract (Conway & Briner, 2005). Herriot et al. (1997) studied the employee and employer perceptions of the psychological contract contents in the United Kingdom, using the bilateral approach. Using the critical incident technique, both employer representatives and employees were interviewed in order to identify work related incidents that either did not meet or exceeded the treatment that the employee can reasonably expect from the employer and vice versa. Herriot et al. identified 12 dimensions of employer obligations and 7 dimensions of employee obligations.

The 19 dimensions were shared by both samples and it was not necessary to create an additional dimension because of a critical incident reported by either party. The dimensions of employer and employee obligations, together with the frequency and percentage with which they were reported, are depicted in tables 2.6 and 2.7. Although the group of 184 managers reported different frequencies of the obligations than the group of 184 employees, they did agree on the content dimensions. The biggest difference between the two groups was that the managers reported more frequently incidents that can be identified as being relational obligations, while for the employees it were transactional obligations that were more often mentioned.

The 12 employer dimensions that were identified by Herriot and his colleagues are: (1) training: providing adequate induction and training; (2) fairness: ensuring fairness of selection, appraisal, promotion and redundancy procedures; (3) needs: to allow time off for personal or family needs; (4) consult: to hold employee consultation on matters which affect them; (5) discretion: minimal interference with how employees do their job; (6) humanity: to act in a responsible and supportive way towards employees; (7) recognition: to reward or recognize special contribution or long service; (8) environment: to provide a safe and congenial work environment; (9) justice: to be fair and consistent in applying rules and

disciplinary procedures; (10) pay: equitable with respect to market values and consistent across the organization; (11) benefits: to be fair and consistent in administrating benefit systems; (12) security: trying to provide as much job security as possible.

	<i>Employee group</i>		<i>Organization group</i>	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
<i>Training</i>	25	9,62	24	8,36
<i>Fairness</i>	28	10,8	37	12,9
<i>Needs</i>	15	5,77	14	4,88
<i>Consult</i>	14	5,38	14	4,88
<i>Discretion</i>	14	5,38	6	2,09
<i>Humanity</i>	19	7,31	41	14,3
<i>Recognition</i>	11	4,23	31	10,8
<i>Environment</i>	39	15,0	25	8,71
<i>Justice</i>	14	5,38	12	4,18
<i>Pay</i>	31	11,9	18	6,27
<i>Benefits</i>	25	9,62	47	16,4
<i>Security</i>	25	9,62	18	6,27

Table 2.6 Frequency and percentage of incidents concerning employer obligations (Herriot et al., 1997)

The 7 employee dimensions that were identified by Herriot et al. (1997) are: (1) hours: to work the hours that are in the employment contract; (2) work: to do a good job, both quantity and quality wise; (3) honesty; to be honest with clients and the organization; (4) loyalty: to remain with the company, protect its reputation and put its interests first; (5) Property: to treat the company's property with care; (6) self-presentation: to dress and behave correctly; (7) flexibility: to be willing to go beyond the job description if necessary.

When comparing the employee and employer perspectives, reported in table 2.6 and 2.7, we can see that the employer representatives stated benefits, humanity, fairness, and

recognition as most important employer obligations in exchange for the employee obligations hours, work and honesty. The employees on the other hand reported environment, pay, and fairness as most important employer obligations, while the most important employee obligations in exchange were the same as reported by the managers. Herriot et al. concluded that employees seem to put more emphasis on transactional obligations that are more tangible, whereas managers, acting as representatives for the organization have a tendency to focus more on relational obligations such as recognition, that are less tangible.

	<i>Employee group</i>		<i>Organization group</i>	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
<i>Hours</i>	76	32,1	68	28,1
<i>Work</i>	46	19,4	54	22,3
<i>Honesty</i>	36	15,2	41	16,9
<i>Loyalty</i>	10	4,22	28	11,6
<i>Property</i>	20	8,44	9	3,72
<i>Self-presentation</i>	25	10,5	14	5,79
<i>Flexibility</i>	24	10,1	28	11,6

Table 2.7 Frequency and percentage of incidents concerning employee obligations (Herriot et al., 1997)

According to Conway & Briner (2005) and Freese & Schalk (2008) it is not clear if the methodology that was used by Herriot et al. (1997) is in line with psychological contract theory. They mention that since the researchers only asked for events where expectations were not met or exceeded, one could suggest that Herriot et al. were actually measuring the contents of under or over-fulfilment and that by looking at deviations from what was promised, some items included in the psychological contract could potentially be overlooked. Items that were fulfilled according to the promised levels would not necessarily show up when using the critical incident technique the way that Herriot et al. (1997) did. The fact that Herriot and colleagues asked for expectations can also be seen as a discrepancy with psychological contract theory. As was discussed in paragraph 2.2, an expectation is not necessarily contractual (e.g. Rousseau & McLean Parks, 1993) and can therefore fall outside of the psychological contract.

2.4.2.2 Employee perceptions

Rousseau (1990) studied the psychological contract contents of a sample of 224 graduating MBA students over their first two year of employment. In order to determine what content items would generally be asked of and promised to new recruits, Rousseau interviewed HR managers from 13 engineering, accounting and manufacturing companies. Robinson (1996) asked a sample of 75 full time employed MBA students to describe what they perceived as employer and employee obligations and she found that the seven employer items used by Rousseau (1990) were the ones most often mentioned by the participants.

The same sample that was examined for the study by Rousseau (1990) was also subject for a number of other studies (Robinson & Rousseau, 1994, Robinson et al., 1994, Robinson & Morrison, 1995, Robinson, 1996). The content dimensions that Rousseau (1990) identified are presented in table 2.8. Rousseau's questionnaire asked respondents to what extent the employer they just signed up with, was obligated to provide them/ owed them the employer obligations that can be found in table 2.8. The response scale was a five point Likert scale that ranged from 1 'not at all' to 5 'very highly'. Regarding their own obligations towards their new employers, participants were asked to what extent their obligations included the items from table 2.8. The response scale for the employee obligations was the same as the response scale used for the employer obligations.

<i>Employer obligations</i>	<i>Employee obligations</i>
Promotion	Loyalty
Training	Working extra hours
High pay	Willingness to accept a transfer
Career development	Protection of proprietary information
Long term job security	Volunteering to do non-required tasks
Support with personal problems	Advance notice if taking a job elsewhere
Pay based on current level of performance	Refusal to support the employer's competitors
	Spending a minimum of 2 years in the company

Table 2.8 Content dimensions identified by Rousseau (1990)

Rousseau identified two dimensions for both employer and employee obligations regarding the psychological contract contents of the participants. These represent the transactional and relational dimensions that were discussed in the previous paragraph. Robinson et al. (1994) studied the changes in psychological contract contents and used the same set of content dimensions at times 1 and 2 to identify any differences. They also identified a factor structure with transactional and relational dimensions for both employer and employee obligations, but did not reproduce Rousseau's (1990) factor structure. Training and development had loaded on the transactional dimension in the study by Rousseau (1990) but loaded on the relational factor for Robinson et al. (1994).

The factor structures for both studies can be found in table 1.9, which presents the solution that was identified by Rousseau (1990) and the items that loaded significantly on the same factor at T1 and T2 for Robinson et al. (1994). Robinson et al. (1994) suggested that because the transactional and relational factors were found consistently over a two-year period, this gave support to the typology that they used. Other authors have however questioned the clarity of the distinction between the transactional and relational dimensions (e.g. Janssen et al., 2003).

Arnold (1996) states that not all elements of transactional and relational psychological contract are mutually exclusive and that this will depend on factors like HR practices and labor market conditions. It is for this reason that Conway & Briner (2009) conclude that it would not be reasonable to expect a certain structure across different contexts. Robinson & Rousseau (1994) studied the occurrence and impact of psychological contract violation, using the content measure at T1 and a contract violation measure at T2. Robinson & Morrison (1995) studied the relationship between psychological contract violation and civic virtue behavior. Robinson (1996) studied the relationship between psychological contract breach and trust. The last two studies used a longitudinal approach, measuring the contract contents at T1. They only used the set of employer obligations and deleted the item support with personal problems. Robinson (1996) added sufficient power and responsibility.

	<i>Rousseau (1990)</i>		<i>Robinson et al. (1994)</i>	
	<i>Employer</i>	<i>Employee</i>	<i>Employer</i>	<i>Employee</i>
<i>Transactional</i>	<ul style="list-style-type: none"> - High pay - Performance-based pay - Training and development 	<ul style="list-style-type: none"> - Work overtime - Engage involuntary - Extra role activities - Give notice before quitting 	<ul style="list-style-type: none"> - Advancement - High pay - Merit pay 	<ul style="list-style-type: none"> - Notice - Transfers - No competitor support - Proprietary protection
<i>Relational</i>	<ul style="list-style-type: none"> Job security 	<ul style="list-style-type: none"> - Loyalty - Minimum length of employment 	<ul style="list-style-type: none"> - Job security - Training - Development 	<ul style="list-style-type: none"> - Overtime - Loyalty - Extra role behavior

Table 2.9 Factor structures for the studies by Rousseau (1990) and Robinson et al. (1994)

Millward & Hopkins (1998) developed the Psychological Contract Scale. This measure was developed by proposing 50 statements, designed to address either relational or transactional aspects of psychological contract contents, to a focus group for validation, before testing the uni-dimensionality of the factors through the use of a confirmatory factor analysis. Millward & Hopkins proposed the final Psychological Contract Scale with 31 items, 20 items for the transactional subscale and 11 items for the relational subscale. The measure by Millward & Hopkins (1998) is the only study that captures part of the exchange process (Conway & Briner, 2005). Some example items from the measure are: ‘I am motivated to contribute 100% to this company in return for future employment benefits’; ‘the company develops/rewards employees who work hard and exert themselves’; ‘I have a reasonable chance of promotion if I work hard’. The measure focuses on the global employment relationship and therefore assesses the psychological contract contents indirectly (Conway & Briner, 2005, Freese & Schalk, 2008).

The Psychological Contract Scale was later used by Raja et al. (2004) but they were not able to replicate the same factor structure as Millward & Hopkins (1998), because several items either had factor loadings that were too low, cross-loaded on both factors, or loaded negatively. One of the possible reasons for the different factor structure is the difference in

samples that were examined. Millward & Hopkins (1998) studied a sample of 476 employees, working for 4 private companies in the UK that were active in the service industry, while Raja et al. (2004) studied a sample of 197 employees that worked for 5 private and public companies, such as a private sector bank and a production company, in Pakistan. Raja et al. (2004) deleted the factors that did not show the same loading patterns as the original Psychological Contract Scale, which resulted in an adapted measure with both the transactional and relational subscales including 9 items.

Rousseau (2000) developed the Psychological Contract Inventory (PCI). The PCI is based on the framework proposed by Rousseau & Wade-Benzoni (1994), which was presented in section 2.3.3.1, and is a moderated version of an earlier content measure developed by Rousseau (1990). The PCI was developed to assess characteristics of the employment relationship (Rousseau, 2000) and measures both content and evaluation of the psychological contract. Like the framework presented by Rousseau & Wade-Benzoni (1994), the PCI examines 4 types of psychological contracts: transactional, relational, balanced and transitional. The fourth type, transitional contracts, is not a psychological contract form because it corresponds with a certain deterioration of previous terms of the psychological contract (Rousseau, 2000, Chun et al., 2004).

Rousseau validated the PCI measure by examining two samples of full time employees, one in the U.S. and one in Singapore. Dabos & Rousseau (2004) used a reduced form of the PCI in a Latin American context and measured the contents of psychological contracts. They confirmed the factor structure of transactional, relational and balanced psychological contract items. Chun et al. (2004) confirmed the generalizability of the PCI in a Chinese context, by validating the three-factor structure for two separate samples, one sample of 107 part time Chinese MBA students, and another sample of 605 dyads of employees of a Chinese steel company and their direct supervisors.

2.4.3 The dynamic character of psychological contract contents

In paragraph 2.2.3 the processes of psychological contract formation and change were discussed in order to show that psychological contracts are dynamic (Robinson et al., 1994, Thomas & Anderson, 1998). Employees create their side of the psychological contract with

the input from different sources such as promises made by organization representatives and the employees' perception of the organizational culture and common practices (Turnley & Feldman, 1999). When the psychological contract is dynamic and related to the context in which it is formed, the contents of that contract will also vary according to the context. An example is a study by Thomas & Anderson (1998), who dropped certain employer obligations from an existing questionnaire, because they were not relevant for new Army recruits.

McLean Parks et al. (1998) suggest that certain inducements, such as training and career development, are more appropriate for a psychological contract of a traditional employee, than for psychological contract of temporary workers, consultants and so on. It is therefore possible to say that the contents of the psychological contract are dynamic in two ways. The first would be the change of the contract contents over time. The change from being a new hire to senior employee, the situation before or after an organizational change, or the change of the direct supervisor are examples of sources for possible changes to the psychological contract content. The changes over time to the employment relationship in general also have an influence on the psychological contract content. In paragraph 2.2 we presented the old and new employee contract (Kissler, 1994).

These changes influence the more specific items of the contract content and it is generally agreed that the contract contents have changed (Anderson & Schalk, 1998). Some of these changes were identified by Hiltrop (1995) and are presented in table 2.10. The second way of looking at the contract contents as being dynamic is that the contents will change from one context to another. Police officers, managers, expatriates and sales people all have potentially unique psychological contract items.

<i>Characteristic</i>	<i>Old</i>	<i>New</i>
Focus	Security	Employability
Format	Structured	Flexible
Duration	Permanent	Variable
Scope	Broad	Narrow
Underlying principle	Tradition	Market forces

Intended output	Loyalty and commitment	Value added
Employer's key responsibility	Fair pay for good work	High pay for high performance
Employee's key responsibility	Good performance in present job	Making a difference
Employer's key input	Stable income and career advancement	Opportunities for self-development
Employee's key input	Time and effort	Knowledge and skills

Table 2.10 Changing psychological contract (Hiltrop, 1995)

Expatriate managers were the focus of a study by Guzzo et al. (1994). A sample, existing of 148 expatriates, working for over 40 companies in 36 different countries was examined. Guzzo et al. developed a list of 43 employer items that were grouped in three different subscales; financial inducements, general support and family orientated support. The study by Guzzo et al. (1994) is one of the few studies in which researchers tried to contextually derive the items that were used in the measure (Conway & Briner, 2009). The list contains a large number of specific items that are relevant to expatriates. Some sample items for the three subscales are presented in table 2.11. Guzzo et al. asked the respondents to indicate the extent to which delivered items by the organization differed from what they thought should be provided. According to Conway & Briner (2005), it is not clear if this measure assesses psychological contract contents as such, because Guzzo et al. (1994) do not use the terms employer obligations/promises. Instead they ask for what the employer should deliver, but this is not the same thing as what the employer promised to deliver. Freese & Schalk (2008) qualify the items examined by Guzzo et al. (1994) as employer practices instead of employer obligations.

<i>Subscale</i>	<i>Items</i>
Financial inducements	Tax equalization, housing differential, currency protection
General support	Language training, training for local culture customs, career development and repatriation planning
Family orientated support	General culture transition training for employees' family, spousal employment in firm

Table 2.11 Sample items for the three subscales (Guzzo et al., 1994)

Thomas & Anderson (1998) studied psychological contracts perceptions of British Army recruits and used 7 out of the 12 dimensions of employer obligations from an existing questionnaire that was developed internally for the Army. The selection of these dimensions was done through a pilot study with experts that worked with the original questionnaire, the Army recruits, and training staff. The dimensions that Thomas and Anderson studied were: (1) job security, (2) job satisfaction, (3) pay, (4) accommodation, (5) effects on family, (6) social/leisure aspects, and (7) career prospects. Apart from content measures that contain more general job-related dimensions of different samples, there has also been research that focuses on more specific aspects of psychological contracts that employees can perceive. A psychological contract measure focussing on examining safety related contract contents was developed by Walker & Hutton (2006) and later tested by Walker (2010).

Walker & Hutton (2006) described the psychological contract of safety as ‘the beliefs of individuals about reciprocal safety obligations inferred from implicit or explicit promises.’ The original set of content items, established by Walker & Hutton after data collection consisting of observations of discussions on safety by employees of different kinds of organizations, a literature review of relevant research on safety aspects, and a pilot test among safety experts, contained 45 employer obligations and 33 employee obligations. This original set of obligations was later refined to a set of 21 employer and 15 employee obligations and construct validity of the psychological contract of safety was demonstrated by Walker (2010) examining a sample of 424 employees working in two Australian health care institutions. She also reported that the factor analysis that she performed on the dimensions employer and employee obligations showed that there were two factors underlying each dimension. These factors were in line with the distinction between transactional and relational contract items.

	<i>Relational orientation</i>	<i>Transactional orientation</i>
<i>Employer obligations</i>	<i>F1 Employee safety interests (63,7% of total variance)</i>	<i>F2 Employer provision of safety resources (4,8% of total variance)</i>
<i>Employee obligations</i>	<i>F2 Safety communication and reporting behavior (8,7% of total variance)</i>	<i>F1) Individual compliance-type safety behavior (47,5% of total variance)</i>

Table 2.12 Different factors for employer and employee obligations of the psychological contract of safety (adapted from Walker, 2010)

2.4.4 Different dimensions in psychological contract contents

Research has shown that the content of the psychological contract is multi dimensional (Westwood et al., 2001). The potential number of psychological contract items is vast (Conway & Briner, 2005) and because basically any promise between employer and employee can be included, a psychological contract may contain thousands of items (Kotter, 1973). It is therefore impossible to design one standardized global questionnaire that can be used for every organizational and/or cultural context (Freese et al., 2008). In order to compare large samples of employees that are dispersed among different departments, organizations or sectors, researchers use (latent) variables that measure certain aspects or dimensions of the content items. This type of conceptualization of content research is what Rousseau & Tijoriwala (1998) called composites of terms.

Researchers have not been able to agree on a single way of operationalizing these dimensions (Thomas & Anderson, 1998). The consequence is that there are multiple questionnaires with different dimensions. Conway & Briner (2009) questioned the feasibility of developing a questionnaire with a few dimensions that are generalizable. They suggested that this might be impossible, as each psychological contract is constructed within its own particular context that is in motion. A psychological contract measure that has been developed for examining contract contents and evaluation in a Dutch speaking context is the Tilburg Psychological Contract Questionnaire or TPCQ that was originally developed by researchers at the Tilburg Universities in the beginning of the 1990's.

The questionnaire is made up of several dimensions of employer and employee obligations and is based on the work by Kotter (1973) and the Minnesota Importance Questionnaire (Lofquist & Davis, 1969). The TPCQ has been used in different forms in a number of studies that examined a variety of Dutch and Flemish employee samples (e.g. Schalk, Freese & Van Den Bosch, 1995, Freese & Schalk, 1996, Vos, Buyens & Schalk, 2003, Freese et al., 2008, De Vos et al., 2009, Willem et al., 2010). Although the later studies have used 5 or 6 dimensions of employer obligations, a study by Schalk, Freese & Van Den Bosch, 1995 used two scales. These were implicit and explicit employer obligations. The first 4 dimensions (career development, job content, social atmosphere and organizational policies) formed the scale of implicit obligations, while the dimension rewards represented the scale of explicit employer obligations. An overview of the different dimensions and items measuring

employer obligations that were used in a number of articles is presented in table 2.13. In earlier versions of the questionnaire the researchers used five dimensions to measure the employer obligations. These are: job content, career development, social atmosphere, organizational policies and rewards. In later versions of the TPCQ the researchers added a sixth dimension; work-life balance.

	<i>Freese (2007), Freese et al. (2008)</i>	<i>De Vos, Buyens & Schalk (2003), De Vos, Stobbeleir & Meganck (2009), De Hauw & De Vos (2010), Willem et al. (2010)</i>	<i>Freese et al. (2010)</i>
Job content	<ul style="list-style-type: none"> - Variation in your work - Not being disturbed during work - Working in my own fashion - The ability to produce quality goods and/or services - Responsibility within your field of work - To be able to meet customers' needs or desires - Show my true potential - Challenging and stimulating work - Possibilities to take initiative - Work that suits my knowledge and competencies 	<ul style="list-style-type: none"> - A job in which you can make decisions by yourself - Opportunities to show what you can do - A job with responsibilities - Opportunities to use your skills and capacities 	<ul style="list-style-type: none"> - Variation in your work - Challenging work. - Balanced workload - Interesting work - Autonomy - The opportunity to deliver quality goods/services
Career development	<ul style="list-style-type: none"> - Achieve progress in my field of work - To get promoted from 	<ul style="list-style-type: none"> - Opportunities for promotion - Opportunities for career 	<ul style="list-style-type: none"> - Career opportunities - Training and education

	<p>time to time</p> <ul style="list-style-type: none"> - Acquisition of knowledge and competencies - Change jobs within the organization - Training or education 	<p>development within the organization</p> <ul style="list-style-type: none"> - Opportunities to grow - <i>Opportunities for self-development in the job (Willem et al., 2010)</i> 	<ul style="list-style-type: none"> - Coaching on the job - Professional development opportunities - Learning on the job - Opportunities to fully utilize knowledge and skills
<i>Social atmosphere</i>	<ul style="list-style-type: none"> - Positive relationships between colleagues - Positive working atmosphere - Good mutual cooperation - Getting to know other people through your work - Supported by colleagues and supervisors - Recognition and appreciation - The possibility to express your opinions - Influence on how things go within your department - A fair supervisor 	<ul style="list-style-type: none"> - A good atmosphere at work - Positive relationships between colleagues - A good mutual cooperation - A good communication among colleagues - <i>Colleagues and managers who support you (Willem et al., 2010)</i> 	<ul style="list-style-type: none"> - Good working atmosphere - Good cooperation - Support from colleagues - Appreciation and recognition - Support from supervisor
<i>Organizational policies</i>	<ul style="list-style-type: none"> - Feedback on performance - Trust in management - Fairness and transparency of measures or procedures - Flexibility of the organization when applying rules and regulations - Open, clear and direct communication channels - Provision of information 	<i>NO</i>	<ul style="list-style-type: none"> - Participation in important decisions - A fair supervisor - Feedback on performance - Clear and fair rules and regulations - Keeping you informed - Open communication - Ethical policies concerning society

	<p>needed</p> <ul style="list-style-type: none"> - An efficient organization - Good physical working conditions - Good HRM practices - Work-life balance - Good working time arrangements 		<p>and environment</p> <ul style="list-style-type: none"> - Confidence in the organization
Work-Life balance	NO	<ul style="list-style-type: none"> - Respect for your personal situation - Opportunities for flexible working hours depending on your personal needs - The opportunity to decide for yourself when you take your vacation - A flexible attitude concerning the correspondence between your work and private life 	<ul style="list-style-type: none"> - Consideration of personal circumstances - Opportunity to schedule your own holidays - Working at home - Adjustment of working hours to fit personal life
Rewards	<ul style="list-style-type: none"> - A good salary - Reimbursement of costs of training, child care and travel - Job security - Rewards for exceptional performance or special occasions - Good benefits package 	<ul style="list-style-type: none"> - Financial rewards for exceptional performance - Wage increases based on your performance - An attractive pay and benefits package - Regular benefits and extras 	<ul style="list-style-type: none"> - Employment security - Appropriate salary - Rewards for exceptional performance - Reimbursement of training costs - Good benefits package - Pay for performance

Table 2.13 Overview of different versions of the TPCQ employer obligations

The TPCQ also includes employee obligations. The two measures most frequently used for examining employee obligations are the questionnaire by Freese et al (2008, 2010) and De Vos, Buyens & Schalk (2003). The main differences between these two measures is that the questionnaire by Freese et al. (2008, 2010) uses 2 dimensions (inrole and extra role obligations) and the questionnaire by De Vos, Buyens & Schalk (2003) uses 5 dimensions (in and extra role behavior, flexibility, ethical behavior, loyalty and employability).

Although the questionnaire by De Vos, Buyens & Schalk (2003) appears to be examining different dimensions, the items in both measures are not that far apart and one could rearrange the measure when adopting an inrole/extra role distinction as the Freese et al. (2008, 2010) questionnaires. Therefore we will not present the different scales in this paragraph. The inrole and extra role scales by Freese et al. (2010) are presented in chapter 3. Not only were different versions of the questionnaires used but also a variety of samples were examined for the studies that used variants of the TPCQ to measure obligations and/or fulfillment of the psychological contract contents. Examples of these samples are:

- Employees of 6 Dutch organizations active in recreation, education or healthcare (Freese & Schalk, 1996)
- New hires working in industries such as telecommunication, electronics, consulting, and financial services (De Vos, Buyens & Schalk, 2003)
- Flemish Millennials (De Hauw & De Vos, 2010)
- Employees of 3 Dutch healthcare institutions (Freese et al., 2008).

Some of the studies only focused on obligations (e.g. Freese & Schalk, 1996, De Vos et al., 2009) and other studies measured both obligations and fulfillment (De Vos, Buyens & Schalk, 2003, Freese et al., 2010), or limited the study to fulfillment alone (Freese et al., 2008). This means that the response scales that were used vary between the different studies. An overview of the different response scales that have been used is presented in table 2.14.

<i>Author</i>	<i>Response scale</i>
<p>Schalk, Freese & Van Den Bosch (1995), Freese & Schalk (1996)</p>	<p><i>Employer obligations only</i></p> <p>* Does your employer provide you sufficiently for the following items? Dichotomous scale ‘yes’ or ‘no.’</p> <p>* Do you feel that it is the task of your employer to provide you this? Dichotomous scale ‘yes’ or ‘no.’</p>
<p>De Vos, Buyens & Schalk (2003)</p>	<p><i>Employer and employee obligations</i></p> <p>* Indicate to what extent your employer has made promises to you – implicitly or explicitly – about each of the following items. Five-point Likert scale ranging from (1) ‘not promised at all’ to (5) ‘promised to a very great extent’.</p> <p>* Indicate to what extent you have made promises to your employer – implicitly or explicitly – about each of the following items. Five-point Likert scale ranging from (1) ‘not promised at all’ to (5) ‘promised to a very great extent’.</p> <p>* Indicate to what extent you think that your employer has actually offered you each of the following items. Five-point Likert scale ranging from (1) ‘not at all’ to (5) ‘to a very great extent’.</p> <p>* Indicate to what extent you think that you have actually offered your employer each of the following items. Five-point Likert scale ranging from (1) ‘not at all’ to (5) ‘to a very great extent’.</p>
<p>Freese et al. (2008)</p>	<p><i>Employer and employee obligations</i></p> <p>* Please indicate to what extent the organisation meets your expectations concerning X?. Seven-point Likert scale ranging from (1) ‘much less than expected’ to (7) ‘much more than expected’.</p> <p>* Please indicate whether the degree of fulfilment of your expectations concerning X is acceptable to you. Dichotomous scale ‘acceptable’ or ‘not acceptable’.</p> <p>* Please indicate to what extent you feel obligated to X. Five-point Likert scale</p>

	<p>ranging from (1) 'I don't feel obligated at all' to (5) 'I feel strongly obligated'.</p> <p>* Please indicate to what extent you have actually offered your employer X.</p> <p>Five-point Likert scale ranging from (1) 'not at all' to (5) 'to a very great extent'.</p>
<i>De Vos, Stobbeleir & Meganck (2009)</i>	<p><i>Employer and employee obligations</i></p> <p>* Indicate to what extent you believe your future employer is obligated to provide you with the following items. Five-point Likert scale ranging from (1) 'not promised at all' to (5) 'promised to a very great extent'.</p> <p>* Indicate to what extent you feel obligated to provide your future employer with the following items. Five-point Likert scale ranging from (1) 'not promised at all' to (5) 'promised to a very great extent'.</p>
<i>Willem et al. (2010)</i>	<p><i>Employer obligations only</i></p> <p>* To which extent do you feel it is important that your employer makes inducements about the following obligations as part of your employment deal? Five-point Likert scale ranging from (1) 'not at all important' to (5) 'to a very great extent important'.</p> <p>* To what extent do you feel that your employer has fulfilled these inducements? Five-point Likert scale ranging from (1) 'not at all fulfilled' to (5) 'completely fulfilled'.</p>
<i>Freese et al. (2010)</i>	<p><i>Employer and employee obligations</i></p> <p>* To what extent is your organization obliged to offer you the following? Five-point Likert scale ranging from (1) 'not at all' to (5) 'to a great extent'.</p> <p>* To what extent did your employer fulfil the obligations with regard to (dimensions)? Five-point Likert scale ranging from (1) 'not at all' to (5) 'to a great extent'.</p> <p>* How important are the obligations with regard to (dimensions)? Five-point Likert scale ranging from (1) 'not important' to (5) 'very important'.</p> <p>* To what extent do you feel obliged to offer your organization the following?</p>

	<p>Five-point Likert scale ranging from (1) 'not at all' to (5) 'to a great extent'.</p> <p>* To what extent did you fulfil your obligations? Five-point Likert scale ranging from (1) 'not at all' to (5) 'to a great extent'.</p> <p>* How important are these obligations for your own and the organization's performance? Five-point Likert scale ranging from (1) 'not important' to (5) 'very important'.</p>
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Table 2.14 Overview of different response scales.

2.5 Psychological contract evaluation

The third and final aspect of the measurement framework that was presented by Rousseau & Tijoriwala (1998) is that of psychological contract evaluation. These measures typically compare the actual (levels of) delivered inducements with those that were promised. As we will discuss in this paragraph, there are different ways of calculating fulfilment, breach and violation. A researcher can use absolute score but can also chose to use difference scores. Several ways of calculating and using these scores will be discussed. Before looking at the measurement of psychological contract evaluation, the paragraph will start with an overview of the different elements that a researcher can study while examining the results of the different processes that make up the concept of these contracts. We will start with the concepts of fulfilment, breach and violation.

2.5.1 Fulfilment, breach and violation

2.5.1.1 Distinctions between fulfilment, breach and violation

When evaluating the psychological contract, one is examining the promised and/or delivered inducements. This is done in order to determine if there is psychological contract fulfilment, breach or violation. When the psychological contract is an independent variable in the research model, fulfilment, breach and/or violation are studied as predictor variable regarding one or more outcome variables. Fulfilment of the psychological contract means that the employee estimates that the organization has delivered the promised levels of inducements. The terms breach and violation indicate discrepancies between promised and delivered levels of inducements and are often used to describe situations where the employer

has not delivered the (levels of) inducements that it is obligated to in the eyes of the employee.

Rousseau (1989) defined violation as the “failure of organizations or other parties to respond to an employee’s contribution in ways the individual believes they are obligated to do so.” According to Rousseau (1995) psychological contract violation can take on one of three forms: inadvertent violation, disruption to the contract or breach of contract. Inadvertent violation refers to a situation where, although both parties are willing and able to keep their side of the agreement, divergent interpretations will lead to one of the parties not fulfilling its obligations towards the other party. Disruption to the contract occurs when circumstances make it impossible for one or both parties to fulfil their obligations, even though both parties are willing to fulfil them. Breach of contract refers to one of the parties being able to fulfil their obligations, but refusing to do so.

Breach and violation have been used to describe the same phenomena in earlier studies, but since Morrison & Robinson (1997) made a clear distinction between these two related constructs, which was later supported by Robinson & Morrison (2000), the use of these two terms as separate constructs has nowadays become widely accepted by researchers (Conway & Briner, 2005, Freese & Schalk, 2008).

The distinguishing characteristic between contract breach and violation is that breach is a cognitive appraisal that is the result of an employee’s perception that there is a discrepancy between promised and delivered inducements, whereas violation is the affective reaction that follows the cognitive appraisal.

Ng & Feldman (2009) speak of breach severity, which they describe as the extent to which an employee estimates unfulfilment of the most important inducements of their psychological contract. As with contract violation, breach severity is an individual perception of contract breach and will therefore vary from one employee to another. According to Ng & Feldman, a more severe breach of contract will probably lead to more intense and negative employee reactions. The process that visualises the separate constructs of breach, violation and related concepts is depicted in figure 2.5.

Morrison & Robinson (1997) define breach as ‘the cognition that one’s organization has failed to meet one or more obligations within one’s psychological contract in a manner commensurate with one’s contributions’. Psychological contract breach is an important concept in the employment relationship, as breach signals a certain damage to the relationship that is not easily restored (Rousseau & McLean Parks, 1993) because factors like trust and good faith, that underlie the relationship are undermined (Rousseau, 1989).

The effects of breach have an impact on employee behavior (Conway & Briner, 2002) and work related outcomes (e.g. Rhoeling, 1996, Zhao et al., 2007). According to Schein (1980) violations of psychological contract aspects such as providing feedback, providing opportunities for growth and providing possibilities for development can invoke strong feelings that can lead to labor unrest, strikes or even turnover. Herriot et al. (1997) stated that breach has an impact on the reciprocity between the employer and employee, with the injured party showing a decline regarding their own obligations. In the majority of studies published, the term fulfilment is used as opposite of breach of the psychological contract (Conway & Briner, 2005).

2.5.1.2 Antecedents of contract breach

Morrison & Robinson (1997) present two main concepts of psychological contract breach, committed by employers. These are renegeing and incongruence. Renegeing refers to the knowingly breaking of a promise by (the representatives of the) organization and it contains two perceived causes of discrepancy mentioned by Turnley & Feldman (1999b). The first cause of discrepancy is the possible unwillingness of the organization to deliver the promised levels of inducements. Rousseau (1995) described this cause as renegeing or breach of contract. Besides this first deliberate cause of discrepancy, it is also possible that the organization is unable to deliver because of a whole range of reasons, due to for instance organizational changes or changes in the markets in which the organization operates. Rousseau (1995) called this disruption of the contract.

Besides renegeing, employees and employers can have different views regarding which inducements make up the psychological contract, and the extent to which each party has delivered on these inducements (Coyle-Shapiro & Kessler, 2000). Morrison & Robinson

(1997) use the term incongruence and Rousseau (1995) referred to this situation as inadvertent violation. It is not always possible for the employee to assess if the employer has fulfilled every promise regarding the inducements of the psychological contract. The visibility of the discrepancy to the employee and the extent to which the employee monitors fulfilment by the organization have an influence on the employees' perceived unmet promises. Morrison & Robinson (1997) use the terms salience and vigilance in their model. The assessment of the employee regarding the type of cause of discrepancy during the comparison process is determining for how discrepancies will be interpreted. Discrepancies due to the unwillingness of the organization to deliver on promised inducements will more likely lead to perceived breach than discrepancies due to the inability of the organization to do better in difficult economic times (Rousseau, 1995, Turnley & Feldman, 1999b, Robinson & Morrison, 2000).

2.5.1.3 Contract violation

Psychological contract violation occurs when the employee has an emotional reaction to breach. Rousseau (1989) refers to reactions such as an intense reaction of outrage, shock, resentment and anger. Violation is not the same thing as breach, since that applies to the organization not delivering the promised levels on one or more inducements of the psychological contract. Morrison & Robinson (1997) describe violation as “the emotional and affective state that may, under certain conditions, follow from the belief that one's organization has failed to adequately maintain the psychological contract”.

Violation is not the opposite of fulfilment as employees can report both violation and high values on fulfilment regarding certain promised inducements (Rousseau & Tijoriwala, 1998). Breach is positively related to feelings of violation (Zhao et al., 2007). However, violation of the psychological contract is not an automatic consequence of the perception of contract breach and employees may consider that a breach of contract has occurred, without experiencing violation (Morrison & Robinson, 1997, Turnley & Feldman, 1998, Conway & Briner, 2002).

The experience of psychological contract violation and the intensity of this emotional state both depend on the meaning that employees attach to the breach (Robinson & Morrison, 2000) during the interpretation process. Conway & Briner (2002) suggest that one of the

conditions under which the employee will experience feelings of violation, after perceiving psychological contract breach, is the perceived importance of the inducement to the employment relationship.

Ng & Feldman (2009) use the concepts of tolerance towards change of psychological contracts (contract malleability) and the possibility of getting the same level of psychological contract elsewhere (contract replicability) to explain breach severity. According to Ng & Feldman, breach will have less intense and negative employee reactions when employees can accept the changes in the promised levels of inducements and when employees have a mix of specific inducements in their current psychological contract that they will probably not be able to get outside of the company. Psychological contract violation, like breach, has been associated with a variety of negative outcomes (e.g. Turnley & Feldman, 2000). As it is the employee that is interpreting the occurred breach, it should also be the employee that is the one assessing if psychological contract violation occurred or not (Freese & Schalk, 2008).

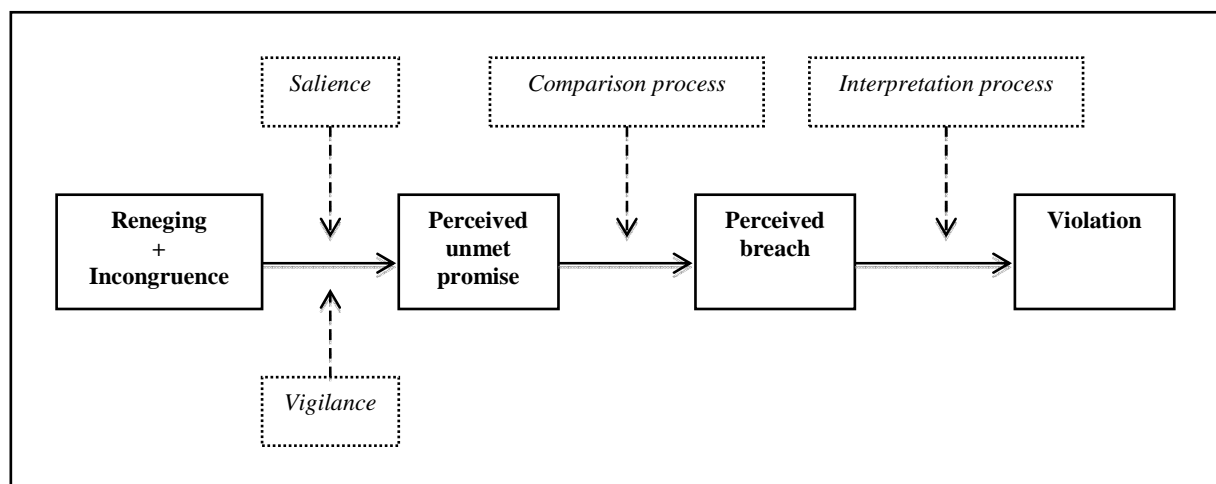


Figure 2.5 The development process of violation by Morrison & Robinson (1997)

2.5.1.4 Frequency of contract breach and violation

Different studies have found different results regarding the amount of employees reporting psychological contract breach and/or violation. According to Turnley & Feldman (2000) they are relatively common. A study by Robinson & Rousseau (1994) concluded that 54,8% of a sample of alumni reported that their psychological contract was violated during the first two years of employment. Turnley & Feldman (1998) stated that about 25% of their sample, consisting of managers and executive-level personnel of whom the majority worked

for organizations that underwent significant restructuring in the 2 years prior to the study, reported serious violation of their psychological contracts. Coyle-Shapiro & Kessler (2000) found that the majority their sample, made up of British employees working in different industries, had experienced psychological contract breach. The percentages of varying degrees of breach that they reported range from 78% to 89% on three dimensions of employer obligations. Turnley & Feldman (2000) reported that 52% of their sample of managerial-level employees experienced some degree of contract violation. They did however report different percentages and specific sources of psychological contract violation for the four subgroups that made up the sample for this study. A diary study by Conway & Briner (2002) found that 69% of a mixed sample of part-time students and employees working in the finance sector experienced at least one broken promise over a period of ten days.

According to Turnley & Feldman (1999b) these different findings might be explained by the way that researchers define and measure psychological contract violation. Not all researchers have used Morrison & Robinson's (1997) distinction between breach and violation. If a single discrepancy between promised and delivered inducements is considered as psychological contract violation, than the resulting percentage of employees experiencing psychological contract violation will normally be higher than when employees are asked to fill out a separate violation scale. The difference found by Turnley & Feldman (2000) also indicates that the characteristics of the sample that is being studied may have an influence on the results that will be found. Conway & Briner (2002) state that minor events, identified in a diary study, might not have been picked up in other research that did not use daily entries. They also suggest that their definition of broken promises is conceptually different from definitions of breach used in other studies.

The frequency of perceptions of psychological contract breach may also be influenced by individual characteristics of employees. Robinson & Morrison (2000) concluded that employees who experienced psychological contract breach with the previous employer were more likely to report contract breach at the current employer. Raja et al. (2004) reported that employees with high neuroticism, high locus of control and low conscientiousness were more likely to report psychological contract breach than employees who show opposite scores on these Big Five dimensions.

2.5.1.5 Psychological contract features and fulfilment

Employees with different types of contracts will have different reactions to psychological contract breach (Rousseau, 2001). Regarding the typology of transactional and relational contracts, Rousseau & McLean Parks (1993) proposed that relational contracts become transactional when they are violated. They based their proposition on the idea that psychological contract violation will erode trust and will undermine the employment relationship. This will then lead to lower employee contributions, such as performance and attendance and lower employer investments like retention and promotion. When both employer and employee do not support the relational aspects of the relationship, only transactional, economic exchange remains. Morrison & Robinson (1997) state that employees with transactional contracts will have a lower threshold for concluding that contract breach has occurred. They go on to say that breach of relational contracts will lead to stronger reactions, such as contract violation.

This means that although relational contract breach is less likely to occur, the reactions of relational contract breach will be more severe. Studies that examined the role of relational and transactional inducements on the relationship between psychological contract breach and outcome variables, found that the content of the psychological contract did act as a moderator. The more severe reaction to relational contract breach reflected in some of the results. A meta-analysis by Zhao et al. (2007) reported that it was relational breach that had a larger effect size on job satisfaction and turnover intentions and that transactional breach had a larger effect size on organizational commitment. Montes & Irving (2008) reported larger effect sizes for relational breach on the outcome variables satisfaction, employment intentions and psychological contract violation. A recent study by Bordia et al. (2008) found that only relational breach was related to psychological contract violation.

Bunderson (2001) suggested a variant of the transactional-relational distinction and distinguished administrative and professional contracts and proposed that these two types are the result of different underlying ideologies. He studied professional and administrative role obligations in order to establish if each set of obligations had different relations with a number of attitudinal and behavioural outcomes. He reported that perceived breach of administrative obligations were most strongly related to dissatisfaction, thoughts of quitting

and turnover. Organizational commitment and job performance were most strongly related to the perceived breach of professional obligations.

2.5.1.6 Empirical studies on contract breach and violation

Psychological contract breach and violation have been studied as predictor variables on a wide variety of work related outcomes. Although a large number of studies have examined the outcomes of breach, the causality of breach cannot be determined for most of these articles because approximately 90% of the empirical studies examining the consequences of breach use cross-sectional designs (Conway & Briner, 2005). Some examples of work related outcomes that were studied are:

- Performance (Robinson, 1996, Sturges et al., 2005, Hekman et al., 2009)
- Job satisfaction (Robinson & Rousseau, 1994, Cavanaugh & Noe, 1999, Coyle-Shapiro and Kessler, 2000, Kickul, Lester & Finkl, 2002, Bunderson, 2001)
- Organizational commitment (Guzzo et al., 1994, Coyle-Shapiro & Kessler, 2000, Bunderson, 2001, Sturges et al., 2005, Raja, Johns & Ntalianis, 2004)
- Intention to quit (Turnley & Feldman, 2000)
- Actual turnover (Robinson & Rousseau, 1994, Bunderson, 2001)
- Organizational citizenship behaviour (Robinson & Morrison, 1995, Coyle-Shapiro & Kessler, 2000, Turnley & Feldman, 2000)
- Workplace deviance (Bordia et al., 2008)
- Feelings of violation (Robinson & Morrison, 2000).

A meta-analysis by Zhao et al. (2007), including 51 studies, found that psychological contract breach was negatively related to job satisfaction and organizational commitment, and positively related to turnover intentions. Conway & Briner (2005) also studied the relation between breach and a number of work related outcomes and concluded that breach was strongly related to job satisfaction, moderately related to organizational commitment and weakly related to job performance and actual turnover. A meta-analysis by Bal et al. (2008) that included 60 studies, reported that psychological contract breach was significantly and negatively related to trust, job satisfaction and affective commitment.

2.5.1.7 Empirical studies on variables mediating contract breach and violation

Researchers have studied psychological contract violation as a variable mediating the relationship between contract breach and outcome variables. Raja, Johns & Ntalianis (2004) reported that violation mediated the relationship between breach and intentions to quit, job satisfaction and affective commitment. Bordia et al. (2008) found that violation mediates the relationship between breach and revenge cognitions. A study by Dulac et al. (2008) concluded that violation partially mediated the relation between breach and turnover intentions and fully mediated the relationship between breach and affective commitment and trust in the organization.

Other variables have been examined as possible mediators between psychological contract breach and outcome variables. Besides violation, researchers have examined other variables as mediators between psychological contract breach and outcome variables. Robinson & Morrison (1995) concluded that trust mediated the relationship between breach of relational contracts and civic virtue. Robinson (1996) reported that prior trust moderated the relationship between perceived psychological contract breach and trust.

According to Conway & Briner (2002) the perceived importance of the promise that has been breached has a significant influence on the relationship between psychological contract breach and violation. Kickul et al. (2002) showed that procedural justice influenced the relationship between extrinsic breach and the dependent variables job satisfaction, in-role job performance, intention to leave the organization, and organizational citizenship behavior, and that interactional justice influenced the relationship between intrinsic breach and these outcomes.

Sturges et al. (2005) found a mediating effect of affective commitment on the relationship between psychological contract fulfilment and externally focused individual career management behavior. Bal et al. (2008) reported that age positively moderated the relationship between psychological contract breach and trust and organizational commitment, but negatively moderated the relationship between psychological contract breach and job satisfaction. The meta-analysis by Bal et al. will be presented in more detail in the next paragraph.

2.5.1.8 Employer perception of breach

Only a few studies have examined psychological contract violation by employees from an employer's perspective, but they don't really go into the topic of perceived employee violation (e.g. Herriot et al., 1997). Nadin & Williams (2011) studied the employer's perception of psychological contract violation by employees. They used the critical incident technique during interviews with a number of small business owners in the UK to examine cases of employee violation and their consequences. Nadin and Williams identified three main types of violation. These were employees' refusal to carry out duties, employee exit without giving prior notice and theft by employees. The responses to perceived employee violation by the participants seem to resemble the responses to perceived employer violation described by Morrison & Robinson (1997) in that employers in the study by Nadin & Williams reported strong emotional responses like feelings of anger, betrayal and upset from the small business owners.

One of the reasons for these emotional responses reported by participants was the loss of trust in the employer-employee relationship, which was previously used to describe employee responses to employer breach (Rousseau, 1989 and Rousseau & McLean Parks, 1993). The consequences of the perceived employee violation on reciprocity of obligations seem to confirm the suggestion by Herriot et al. (1997) in that the party that was victim of the psychological contract violation will lower their own obligations. The small business owners changed their behavior after violation of contract by employees, for instance in cases of theft. The reported change in behavior resembles the change from a more relational contract towards a more transactional contract. This change was previously described in the context of employee reactions to contract violation (Rousseau & McLean Parks, 1993).

2.5.2 Measures of psychological contract violation

Measures of psychological contract violation cannot be reversed scales that initially asked employee about the fulfilment of the contract. Even though global fulfilment and discrete violation measures are related, they appear to be measuring different psychological experiences (Rousseau & Tijoriwala, 1998, Freese & Schalk, 2008). An example of a psychological contract violation measure is the four-item measure developed by Robinson & Morrison (2000). This measure has a five-point response scale, with responses ranging from

‘strongly disagree’ to ‘strongly agree’. Studies that have used this measure show adequate levels of reliability. Some examples are Bordia et al. (2008) who reported a Cronbach’s alpha of .85, Raja, Johns & Ntalianis (2004) .81, Hekman et al. (2009) .96 and the original article by Robinson & Morrison (2000) mentions a Cronbach’s alpha was .92.

<i>Item</i>	
1	I feel a great deal of anger toward my organization
2	I feel betrayed by my organization
3	I feel that my organization has violated the contract between us
4	I feel extremely frustrated by how I have been treated by my organization

Table 2.15 The four-item violation scale by Robinson & Morrison (2000)

2.5.3 Measures of psychological contract breach

2.5.3.1 Specific measures of contract breach

Researchers use both global and specific measures to assess psychological contract breach. Most researchers use specific measures (Lambert et al., 2003, Conway & Briner, 2005). A specific measure assesses the extent to which a particular promise was fulfilled. This means a specific set of promised and/or delivered inducements are assessed. There are two main approaches that are used to operationalize the specific measures in psychological contract research. These are the direct and the indirect measures (Freese & Schalk, 2008). The direct measure asks the employee to indicate the extent to which a specific set of promised inducements, provided by the organization, exceeds or falls short of promised levels. An example of a direct measure is the measure used by Kickul, Lester & Finkl (2002). After asking the participants to specify the promises that the organization made to them, participants were asked how well their organizations had fulfilled each promise, by answering on a five-point Likert scale, ranging from ‘not at all fulfilled’ to ‘very fulfilled’.

The indirect measure will ask the employee to give an assessment of the extent to which inducements were promised and delivered. This means that the indirect measures uses two separate scales. The researcher then subtracts the degree to which an inducement was

fulfilled from the degree to which that same inducement was promised (Robinson, 1996). The result is a difference score that represents the discrepancy or (in)congruence between promised and delivered inducements. Coyle-Shapiro & Kessler (2000) used an indirect measure. They presented the participants with two scales. The first scale asked participants about a number of inducements: 'to what extent do you believe that your employer is obligated to provide you -item-?' Participants were asked to give their answers on a five-point Likert scale, with responses ranging from 'not at all' to 'a very great extent'. The second scale asked participants about the delivery of the inducements: 'to what extent did your employer provide you these obligations in practice?' Participants were again asked to use a five-point Likert scale.

Coyle-Shapiro & Kessler (2000) used both measures to establish psychological contract breach and found the results of the direct and indirect measures to be broadly consistent. Lambert et al. (2003) state that these two measures are analogous and identified them as the directional approach because the score for both the direct and the indirect measure express a directional comparison between delivered and promised inducements. If no reverse scores are used a positive score will indicate that promised inducements have been delivered at the promised or at excess levels. Negative scores will indicate that the organization did not deliver the level of promised inducements and reflects the level of deficiency. The score therefore indicates the direction of the difference.

2.5.3.2 Global measures of contract breach

Global measures often measure the promised inducements on the item level but employees are asked to what extent the employer fulfilled the psychological contract, using a separate, global scale (Freese & Schalk, 2008). The fulfilment scale is then reversed so that it indicates breach. Reversing the fulfilment scale into a breach scale is not surprising as most studies consider fulfilment and breach to be the opposites on the same continuum (Conway & Briner, 2005). Low scores on the breach scale indicate that promised and delivered inducements are equal. Lambert et al. (2003) use the term nondirectional approach for global measures, because even though high scores indicate discrepancies between promised and delivered inducements, they do not explain if this discrepancy is due to excess or deficient inducements. It is therefore not possible to establish the direction of the difference.

Examples of global measures are the measures used by Robinson & Rousseau (1994) and Robinson & Morrison (2000). Robinson & Rousseau (1994) used two scales. The first (five point Likert) scale asked participants: ‘please indicate how well, overall, your employer has fulfilled the promised obligations that they owed you’. The second scale was a dichotomous scale, where participants could answer yes or no to the question ‘has or had your employer ever failed to meet the obligation(s) that were promised to you?’ Robinson & Morrison (2000) used a global measure that contained five items. The response five point Likert scale ranged from ‘strongly disagree’ to ‘strongly agree’.

<i>Item</i>	
1	Almost all the promises made by my employer during recruitment have been kept so far (reversed)
2	I feel that my employer has come through in fulfilling the promises made to me when I was hired (reversed)
3	So far my employer has done an excellent job of fulfilling its promises to me (reversed)
4	I have not received everything promised to me in exchange for my contributions
5	My employer has broken many of its promises to me even though I’ve upheld my side of the deal

Table 2.16 *The five-item breach scale by Robinson & Morrison (2000)*

2.5.3.3 Advantages and disadvantages of specific and global measures

There are a number of advantages and disadvantages regarding global and specific measures to assess psychological contract fulfilment. The main advantage of using specific measures is that they allow for an item level assessment of excess and/or deficient inducements (Conway & Briner, 2005). Likewise, Zhao et al. (2007) note the advantages of global measures of breach when there is no research focus on a specific type of content. When global measures are used to establish contract fulfilment or breach, the results will not show what the employee reported in regard to specific inducements or dimensions of inducements. If a specific item or group of items (e.g. training or work-life balance) is to be studied, the researcher will have to decide to use specific measures. According to Freese & Schalk (2008) the preferred way of measuring the psychological contract is on the subscale or item level,

because the psychological contract cannot be considered as a holistic one-dimensional construct.

According to Conway & Briner (2005) there are two main disadvantages of using specific measures for assessing fulfilment. The first disadvantage is that important psychological contract items may not be included in the selected set of promised inducements. If the researcher fails to identify a number of items that are in reality part of the employees' psychological contract, the assessment of fulfilment or breach of that contract might become inaccurate. Although specific measures assess fulfilment of promised inducements on the item level, it is not necessarily the case that employees will define a specific unmet promise as a breach of contract (Morrison & Robinson, 1997). According to the authors, employees may take the (perception of) fulfilment of their own obligations towards the organization in consideration when evaluating the possible breach of the psychological contract.

The second disadvantage mentioned by Conway & Briner (2005) is that the method of aggregating the items into a composite score by taking a simple average is unlikely to reflect how an employee psychologically aggregates experiences. Employees do not distribute the weight equally over the number of items of a scale. The process of comparing promised and delivered inducements from both employer and employee, that is the basis on which employees establish if there is a breach of contract, is both subjective and imperfect (Morrison & Robinson, 1997, Robinson & Morrison, 2000). According to the authors, cognitive biases, personal dispositions and the nature of the employment relationship all influence the employees' evaluation of the contract during the interpretation process that is depicted in figure 2.5.

This means that in some cases employees will perceive contract breach, when in fact there is no indication that breach has occurred. It is however equally possible that the evaluation of the promised and delivered inducements of the psychological contract would suggest contract breach when the employee does not qualify the events as being a breach of contract. Zhao et al. (2007) found that for studies included in their meta-analysis, global measures had a larger effect on outcome variables than specific measures. The authors give three possible reasons for this. The first two are the same as the two previously mentioned disadvantages that were mentioned by Conway & Briner (2005); restriction of the psychological contract items and potential bias of reported breach through the use of the same

weight for all psychological contract items. The third possible reason given by Zhao et al. (2007) is that composite measures make use of widely criticized difference scores.

2.5.3.4 Difference scores

A large amount of articles published on the evaluation of the psychological contract use difference scores to indicate fulfilment/breach (Lambert et al., 2003). Difference scores are prone to methodological problems (e.g. Edwards & Parry, 1993, Edwards, 1994, Irving & Meyer, 1995). The evaluation of the psychological contract with the use of direct and indirect measures can be placed in the wider context of congruence research, which refers to the fit, match, similarity or agreement between two constructs (Edwards, 2009). Difference scores are the algebraic, squared, or absolute difference between two components (Shanock et al., 2010), which are the promised and delivered inducements in the context of psychological contract evaluation. It is important to note that the use of the direct fulfilment measure can lead to the same ambiguous interpretations as when using difference scores because it is left up to the participants to give one score, without knowing the separate scores of the components (Irving & Meyer, 1995, Edwards, 2001, Irving & Montes, 2009).

The use of difference scores is often problematic due to a number of problems that are related to the use of these measures. Several articles (e.g. Edwards, 1994, Edwards, 2002 and Lambert et al., 2003) present conceptual and methodological problems regarding the use of difference scores. We will discuss three of these problems.

First, difference scores imply that the components (promised and delivered inducements) contribute equally to the outcome. This can lead to ambiguous interpretations of the relationship between dependent and independent variables, because it is possible that only one of the components is correlated with the outcome variable (Irving & Meyer, 1995). Montes & Zweig (2009) concluded that psychological contract breach could occur, even in the absence of promises. Lambert et al. (2003) found that delivered inducements were more strongly related to satisfaction than the promises made by the employer. Montes & Zweig (2009) reported the same results. Lambert et al. (2003) and Montes & Zweig (2009) do point out that this difference might be due to the discrepancy regarding temporal proximity of the two constructs. It is possible that employees compare less between promised and delivered

inducements, and that there is more emphasis on delivered inducements, because the delivery of the inducements is more recent and therefore more important in influencing employee perceptions. Arnold (1996) suggested that researchers should disentangle the components and that the relationship of each component with the outcome variable should be analysed. The two following sections will discuss the other two problems with difference scores.

2.5.3.5 Insufficient or excess fulfilment

Difference scores (and the direct measure of breach) potentially impose unjustified constraints on the effects of promised and delivered inducements by assuming that the effects of promised and delivered inducements are equal in magnitude but opposite in sign. The resulting assumption for fulfilment for indirect measures is represented by an inclining diagonal line that goes from deficient inducements (delivered inducements are less than promised inducements) through fulfilment (delivered inducements equal to promised inducements) to excess inducements (delivered inducements are higher than promised inducements), meaning that excess inducements will always mean higher (positive) outcomes. According to Conway & Briner (2002) research has mostly neglected the effects of the over-fulfilment of inducements that make up the psychological contract and when excess delivery of inducements has been studied, it has been conceptualized as the opposite of breach on a single continuum.

Turnley & Feldman (2000) state that “psychological contracts can be ‘violated’ in the sense that important obligations have not been fulfilled or psychological contracts can be ‘over-fulfilled’ in the sense that the organization provides employees with more than they were promised.” Conway & Briner (2002) reported that the over-fulfilment had a significant positive relationship with the dimension depression-enthusiasm that was used to measure daily mood of the participants. This relationship indicates that higher delivery on inducements lead to higher perception of enthusiasm by the participants in this study.

Guest (1998) raised the question if violation, in the case of over-fulfilment, would place an unfair burden on the other party or whether they would be happy to live with this burden. If we would estimate that over-fulfilment by the employer would mean extra investments (e.g. time and effort) from the employee-side, then ‘more’ or ‘higher’ fulfilment

on inducements would not necessarily mean an increase in an outcome variable such as satisfaction. Result from the study by Lambert et al. (2003) show that this constraint is indeed unjustified for certain inducements. Using the outcome variable satisfaction, they found that the positive linear slope described above was found for the inducements pay, recognition and relationships.

However, the results also show an inverted U-shape relationship along the breach line for the inducements variety, skill development and career training. This means that higher levels of excess inducements do not necessarily lead to higher levels of fulfilment, but may actually lead to higher levels of breach. The majority of exceeded promises in Conway & Briner's (2002) study occurred around issues of social and technical support. These inducements could potentially be compared with the inducements showing the positive linear slope in Lambert et al. (2003), because they do not inhibit the employee from fulfilling a wide range of needs. This may explain why the relationship with depression-enthusiasm was positive. It is therefore possible that a different conceptualization of psychological contract scales might have shown different results for the diary study

2.5.3.6 Absolute levels of inducements

Difference scores disregard the absolute levels of promised and delivered inducements. The underlying assumption when using difference scores is that the relationship between the two constructs and the outcome is only a function of the difference between the constructs, regardless of the constructs level (Cohen et al., 2010). By disregarding the absolute levels of the inducements, difference scores cannot give any insights regarding the influence of higher or lower levels of promised or delivered inducements. Finally, the use of difference scores neglects that promised inducements, delivered inducements and outcomes are three different constructs by reducing a three-dimensional relationship to two dimensions. This reduction leads to difference scores discarding information and oversimplifying the relationship of the components with the outcome (Edwards, 2002).

2.5.4 Expanded view of contract breach

Besides the directional and nondirectional approaches for assessing fulfilment and breach, there is a third approach, which is called the expanded view (Lambert et al., 2003, Montes & Irving, 2008, Lambert, 2011). This approach distinguishes itself from the other two by considering the joint effects of promised and delivered inducements as predictors on an outcome variable, by preserving the absolute levels of promised and delivered inducements, and by recognizing that employee reactions might be different, depending on the inducements that are being studied (Lambert et al., 2003).

A study by Montes & Irving (2008) reported that, even though deficient levels had a larger effect size, both deficient and excess levels of fulfilment for relational contract inducements led to feelings of contract violation. Some inducements will show a curvilinear relationship with the outcome variable, while other inducements will show a positive linear relationship. Lambert et al. (2003) and Montes & Irving (2008) discuss why different effects might be observed for different inducements and suggest that the extent to which inducements inhibit or facilitate the employees' needs fulfilment plays a role.

Lambert et al. (2003) give two examples (salary and skill development) to explain the different effects of excess fulfilment on the outcome variable satisfaction. Salary will have a positive linear relationship with satisfaction because excess fulfilment on this inducement will permit the employee to fulfil a wide range of needs. Skill development will have a curvilinear relationship with satisfaction because excess fulfilment can inhibit the employee to fulfil his needs, for instance due the amount of time that has to be allocated by the employee in order to keep up with delivered levels of skill development. Preserving absolute levels of promised and delivered inducements allows for identification of breach due to deficiency, excess and variation in (level of) fulfilment (Lambert, 2011).

The expanded view conceptualises psychological contract breach as the discrepancy between promised and delivered inducements. When promised and delivered inducements are equal, the term fulfilment is used. The levels at which fulfilment occurs can range from low (low levels of promised inducements and low levels of delivered inducements) to high levels. Lambert et al. (2003) found that there was a positive slope regarding the relation of the level of fulfilment for the selected inducements (pay, recognition, relationships, variety, skill

development and career training) and the outcome variable satisfaction. For their sample, participants reported higher satisfaction in cases when both promised and delivered inducements were high then when promised and delivered inducements were low.

Lambert (2011) explains the principal of the expanded view with the help of a two-dimensional space through which two axes run, the fulfilment and breach lines. Fulfilment is visualised by the diagonal moving from the lower left corner towards the upper right corner, as long as both promised and delivered inducements are equal. The diagonal moving from the upper left corner to the lower right corner represents breach. Along this line there is a discrepancy between promised and delivered inducements, starting with high promised/low delivered and finishing with low promised/high delivered inducements. Figure 1.6 depicts the two-dimensional space with the fulfilment and breach lines and was adapted from Lambert et al. (2003), Irving & Montes (2009) and Lambert (2011).

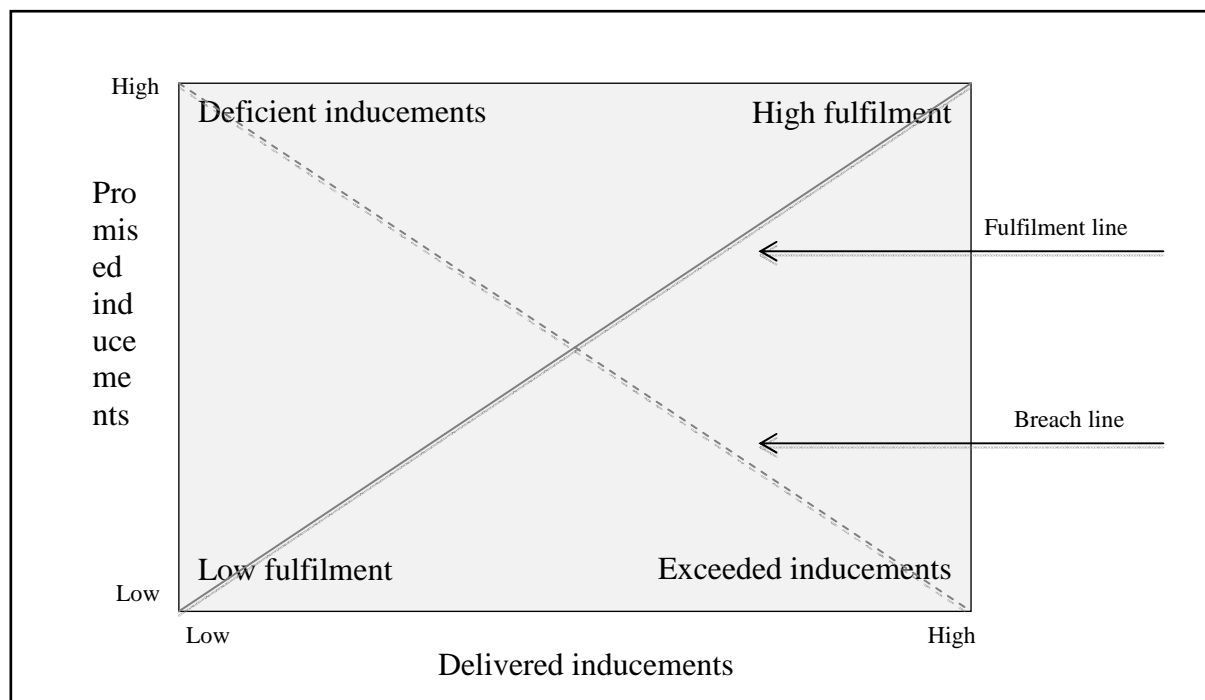


Figure 2.6 Two-dimensional space with fulfilment and breach lines

Since the expanded view studies the effects of both promised and delivered inducements on an outcome variable, a method that captures the three-dimensional relationship of these variables and performs a formal test of this relationship is needed (Lambert et al., 2003). Polynomial regression and response surface methodology meet these criteria (Edwards, 1994, Edwards, 2002, Edwards & Parry, 1993).

2.6 The psychological contract of older employees

Although a lot of research has been published on the psychological contract, there have not been many studies on specific groups such as older workers. If age has been an object of a certain study, than this was usually realized by dividing the sample in different age groups, before comparing them. This paragraph will present the studies that have examined either differences between age groups, or that has studied a sample that was made up of older employees.

2.6.1 Psychological contract research and older employees

Most of the research on psychological contracts has focused on relatively young employees, who have comparatively little work experience, and there has not been a lot of empirical research and/or theoretical work on how and why age and work experience influence reactions to perceived psychological contract breach (Bal et al., 2008, Ng & Feldman, 2009). A meta-analysis by Bal et al. (2008) examined 60 different studies on psychological contracts. The average age of 12 of these studies was above 40 years and only one study reported an average age above 50 years. The psychological contract of employees will change over the course of their careers (Freese & Schalk, 1995). People will attach other meanings to work as they get older, which leads to different priorities at different ages during the employment relationship (Schalk, 2004). The changes in priorities over the course of the life-span were presented in chapter 1.

Bal et al. (2010) studied the relationship between future time perspective and psychological contract fulfilment and whether future time perspective influences the relationship between psychological contract fulfilment and employee obligations. The sample consisted of 176 Dutch temporary post-retirement workers. The age range for this sample was 65-79 years, with an average age of 69. Bal et al. found that future time perspective moderated the relationship between psychological contract fulfilment and employee obligations and that future time perspective was significantly related to developmental contract fulfilment. People that have a high future time perspective report higher levels of developmental fulfilment. They also show stronger reactions to contract fulfilment in terms of levels of employee obligations.

When employees have a high future time perspective, they do not have a feeling that their career is coming to an end soon and will therefore be more focused on opportunities in both professional and private life (Carstensen, 2006). People that reported low future time perspective were less likely to feel obligated to react to contract fulfilment by their employer. Bal et al. (2010) therefore concluded the exchange relationship is more important for older employees with high future time perspective.

2.6.2 Differences between psychological contracts of younger and older employees

A number of authors have stated that the psychological contracts of younger employees and those of older employees are different (e.g. Schein, 1980, Freese & Schalk, 1995, Anderson & Schalk, 1998, Farr & Ringseis, 2002, Hess & Jepsen, 2009). Freese & Schalk (1995) reported several differences between the psychological contracts of younger and older employees that were identified in a study among 338 Dutch employees in 6 different organizations. According to Freese and Schalk, older employees have higher expectations regarding responsibilities, possibilities to be in a managerial position, salary and security. Turnley and Feldman (1999a) suggested that older employees would more likely consider breach on job security related obligations being psychological contract violation, than younger employees.

In line with these findings, Westwood et al. (2001) studied the psychological contracts of a sample of 205 Hong Kong managers and suggested that older and more educated managers have higher expectations than younger managers regarding psychological contract obligations that address having a secure and rewarding job. According to Kalleberg & Rognes (2000) employees with more experience, that tended to be older in their sample, appear to have higher levels of relational employer obligations, such as compensation and job continuity. In the study by Freese and Schalk (1995) younger employees reported higher expectations regarding interesting work, having contact with other people, possibilities for day-care, possibilities to participate in training/schooling and reimbursements for these studies. Turnley & Feldman (1999a) suggested that psychological contract breach on obligations like training and development, advancement opportunities and challenging work would more likely lead to perceptions of contract violation for younger employees than it would for older employees.

Freese & Schalk (1995) suggested that the different life stages in which younger and older employees can be placed are a possible explanation for part of the differences in reported employer obligations. Other possible explanations for these differences are work experience and seniority. Work experience and seniority have an impact on the stability of mental models. Employees that have been working for an employer for a longer period of time will generally have more difficulties changing their psychological contract, because their contract has been created over a number of years and tends to be more stable than the psychological contract of more recent employees (Rousseau, 2001).

According to Rousseau, a positive consequence of a more stable psychological contract is that employees' trust in the employment relationship may be less affected by contradictory information. If employees that have been working in a certain position for a longer period of time have a more stable psychological contract, then one might assume that employees with more seniority or tenure will report less psychological contract breach. Smola & Sutton (2002) studied differences in work values between younger and older employees and concluded that participants developed a less idealized view of work as they aged. A more realistic perception of work and the employment relationship might have consequences for both the perceived levels of obligated inducements and perceived contract breach, as more realistic expectations would normally lead to less instances of perceived breach.

Farr & Ringseis (2002) take another approach and suggest that the increased experience and seniority of older workers will more likely lead to higher perceived levels of employer obligations, which in turn might lead to more severe cases of perceived psychological contract violation when the delivered inducements fall short of the perceived promised levels. As older employees often have more seniority than younger employees, age and tenure could easily be considered as being two variables that have the same effect on psychological contracts.

Cohen (1991) however suggested that age and tenure had different effects on relationships between variables, as they refer to different processes that do not affect the same outcomes in the working environment. A meta-analysis by Bal et al. (2008) concluded that it is important to analyze the effects of age and seniority separately, as they do not necessarily have the same effect on psychological contract processes.

Schalk (2004) presented correlations of a number of employee obligations, employer obligations and employer fulfilment with age. The data shows that, for a representative sample (N=1334) of the active Dutch working population, older employees perceive higher levels of both employer and employee obligations. Older employees reported lower employer fulfilment than younger employees regarding the obligations opportunities for promotion, good work climate and respect. Compared to younger employees, older employees felt especially obligated to volunteer to do non-required tasks if necessary, to work well with others and to put in over-time. The highest correlations for age and employer obligations were found for good work climate, open and direct communication and bonuses based on performance. This last obligation corresponds with the findings of Freese & Schalk (1995), which were mentioned previously.

Contrary to the findings of Freese & Schalk, a study by Coyle-Shapiro & Kessler (2002b) found that for a sample of British government employees, consisting of both temporary and permanent employees, older employees reported lower levels of employer obligations. Coyle-Shapiro & Kessler did report lower psychological contract fulfilment for older employees, showing the same trend as Freese & Schalk (1995).

Janssens et al. (2003) studied a sample of 1049 Belgian employees and identified six clusters or types of psychological contracts. One of these clusters was what the authors called a strong psychological contract. They called it a strong contract because these respondents (N=241) perceived the highest levels of both employer and employee obligations. The average age of this cluster was 41,5 years, which was the highest of the six clusters (average age other clusters between 36,1 and 38,3 years). These different findings show that results regarding the perceptions of older employees may differ, depending on the context of the study and the sample that was examined.

Hess & Jepsen (2009) studied differences in psychological contracts and outcomes of fulfilment by dividing a sample of 287 employees from various occupations and industries into generational groups. They found significantly higher levels for both relational and transactional employer obligations for the Baby Boom-group (aged 45 to 63) than for the Generation X-group (aged 30 to 44), but did not find significant differences for the Generation-Y group (aged 15-29). The authors tried to explain the significant difference

between the Baby-Boom group and the Generation X-group, by focussing on the different stage in one's life. This reasoning is along the lines of what Freese & Schalk (1995) suggested. Hess & Jepsen (2009) argued that older employees place more importance on employer obligations because they have less focus on family responsibilities outside of work, such as dependent children, and will focus more on ensuring resources and job security. Hess and Jepsen also studied the differences in psychological contracts between career stages, using Super's theory of career development (Super et al., 1988), but were unable to identify significant differences.

Older employees seem to have better psychological contracts than younger employees (Freese & Schalk, 1995). According to the authors, a better psychological contract means that there are fewer discrepancies between expected and delivered inducement for older employees. Freese and Schalk suggested that the psychological contracts of older employees might be better because older employees have a more realistic view on what the organization can actually offer, and will therefore adapt their expectations. Although popular belief would suggest that there are big differences between the psychological contracts of younger and older employees, these differences appear to be small, with more similarities than actual differences between generational groups and career stages (Hess & Jepsen, 2009).

Although they did not study the differences between Baby Boomers and Generation X, but instead examined the differences between Dutch participants belonging to the Generation X and Y cohorts, Lub et al. (2011) concluded that they did not find any generational differences for the overall psychological contracts. They did however find differences regarding transactional and relational psychological contracts, with Generation Y participants reporting increased relational expectations. Since no employees belonging to the Baby-Boom cohort participated in the study by Lub et al., it is not possible to compare their data with that of Hess & Jepsen (2009).

2.6.3 The contents of older workers psychological contract contents

Although the previous paragraph presented a number of studies that have looked at possible discrepancies between the psychological contract of younger and older employees, few studies have actually measured the contract contents of a sample of older employees.

Freese & Schalk (1995) and Bal et al. (2010) reported on the psychological contract contents of older employees in the context of the Dutch labor market. Freese & Schalk (1995) used the TPCQ that was described in paragraph 2.4, dividing the contents into five dimensions of employer obligations (job content, career development, social atmosphere, rewards, organizational policies). Although older employees did participate, the sample consisted of employees of all ages. This means that Freese & Schalk (1995) reported almost exclusively about the differences between the younger and older employees, which was described in paragraph 1.6.2, and did not present results for a group of older employees.

Bal et al. (2010) opted for a measure that identified three dimensions of employer obligations (economic, socio-emotional and developmental) and three dimensions of employee obligations (in-role, citizenship, high performance). They found significant relationships between all employer dimensions and the employee in-role obligations, with developmental fulfillment being the only employer obligation to be negatively related. The socio-emotional dimension was the only type of employer obligations that was significantly related to the other employer obligations citizenship and high performance.

A study by Rybnikova (2006) examined a sample of German interim managers. Over 70% of the sample was between the ages of 40 and 59. Rybnikova wanted to examine if social-emotional aspects are included in the psychological contracts of German interim managers and studied four dimensions: (1) honesty of the firm, (2) regard by colleagues, (3) fair treatment by supervisor, (4) integration and respect from the team. One dimension of transactional aspects was also examined. Rybnikova reported that the social-emotional dimensions were important for this relatively older sample of interim managers, and that the absence of traditional employment does not imply an emphasis on transactional aspects of the psychological contract. All five dimensions that were examined showed a significant relation with the outcome variables job satisfaction, and (except for regard by colleagues) helping behavior, which served as an indicator for extra-role behavior.

2.6.4 The evaluation of the psychological contract by older employees

As was mentioned in paragraph 2.6.2, there are different ideas regarding the psychological contract evaluation by older employees. Freese & Schalk (1995) reported that

older employees have better psychological contracts, meaning less cases of contract breach. Rousseau (2001) suggested that older employees might perceive less psychological contract breach because of more stable mental models, whereas Farr & Ringseis (2002) suggested that older employees would possibly perceive more severe psychological contract violation, due to higher levels of perceived obligations, due to an increase in experience and seniority. Turnley & Feldman (1999a) suggested that psychological contract breach of obligations that are related to job security will likely lead to a perception of contract violation for older employees. Although most participants did not belong to the group of older employees, Bordia et al (2008) did report a negative relationship between age and revenge cognitions after perceived psychological contract violation.

The influence of age and seniority on the relation between psychological contract breach and the job attitudes trust, organizational commitment and job satisfaction were examined by Bal et al. (2008) through a meta-analysis that examined a total of 60 studies. They found that age moderated all three outcomes, but not in the same way. Age positively moderated the relation between psychological contract breach and trust. Older employees reported less impact from breach on trust. The same moderating effect was found for affective commitment. Older employees have a smaller drop in affective commitment after perceiving contract breach, than do younger employees. Age negatively moderated the correlation between psychological contract breach and job satisfaction.

This means that older employees reported a stronger decrease in job satisfaction than younger employees after contract breach was perceived. After the moderating effect of age, the same analysis was performed with seniority. Like age, seniority was found to negatively moderate the relation between breach and trust, meaning that the length of employment within an organization has a positive effect on the impact psychological contract breach has on trust. The relation between psychological contract breach and commitment was not moderated by seniority. Finally, seniority did not moderate the relation between breach and job satisfaction, but when age and seniority were analyzed at the same time, seniority moderated opposite of age as both significantly and positively, meaning that the drop in job satisfaction was smaller when employees had worked for the organization longer.

Ng & Feldman (2009) considered the influence of age and work experience on perceived psychological contract breach in a theoretical paper, using the concepts contract

malleability and contract replicability. They describe contract malleability as the degree to which employees can tolerate deviations from the expectations that make up the psychological contract. Some employees will have a greater tolerance concerning underfulfilled or overfulfilled inducements than others. This will lead to different perceptions about whether psychological contract breach occurred or not, and will influence the severity when breach is perceived. Contract replicability is the degree to which individuals believe that they can get the same psychological contract outside of the current organization.

When inducements are rare, and/or not easily replicable elsewhere, employees might have more emotional and negative reactions to perceived psychological contract breach, as the rare inducements can be an important exchange item in the employment relationship of these individuals. Contract replicability can also lead to a less negative or emotional reaction to breach, as contract unreplicability is positively related with organizational commitment (Ng & Feldman, 2008), and employees might therefore react less severe to perceived contract breach. Ng & Feldman (2009) suggest that employees will go through psychological changes as they get older, and as they gather more work experience. These psychological changes have a certain impact on the individual employees' perceptions of contract malleability and replicability. The changes in the employees' perceptions concerning these two concepts will influence the perception of breach and the way that an individual will react to psychological contract breach.

Ng & Feldman (2009) used the lifespan approach, which argues that emotional reactions become less intense when people get older (Baltes et al, 1980). Older people also have a better understanding of and control over their emotions (Löckenhoff & Carstensen, 2004). They therefore propose that age will have a positive impact on contract malleability. Work experience will also be a positive influence on contract malleability because it allows employees to have a better understanding of what they can realistically expect from their employer. Furthermore, previous experiences teach employees to not overreact when inducements are not delivered. While age and work experience supposedly have a positive relation with contract malleability, Ng & Feldman (2009) propose that they are negatively related to contract replicability. According to the authors, older employees will have a more difficult time of finding a new employer and comparable inducements than younger employees. Older employees will therefore be more pessimistic about contract replicability.

Work experience is negatively related to contract replicability because people create a unique set of inducements over the span of the entire employment relationship, that they cannot always get somewhere else. In a longitudinal study among 285 respondents, Ng & Feldman (2008) studied the moderating effects of age, work experience and career stage on the relationship between contract replicability and commitment. They concluded that all three had a moderating effect on the relationship between contract replicability and affective and normative commitment, in that the relationship was stronger for employees that were older, had more years of experience, and who were in later career stages.

2.7 Conclusion

In this chapter we presented an overview of the origin and different aspects of early and more recent research on the concept of the psychological contract. As the sample for this study is made up of older workers between the ages of 45-55 years, an overview of studies applying the concept of psychological contracts in studies with older employees was also presented. The literature review presented different measures that have been developed to examine the contents of the psychological contract, such as the Psychological Contract Scale or PCS (Millward & Hopkins, 1998) and the Psychological Contract Inventory or PCI (Rousseau, 2000). The TPCQ questionnaire (e.g. Schalk, Freese & Van Den Bosch, 1995, Freese & Schalk, 1996, Vos, Buyens & Schalk, 2003, Freese et al., 2008, Freese et al., 2010) was presented for the measurement of psychological contract contents and/or evaluation in a Dutch context. This measure allows for studying both the contents of employer and employee obligations and the evaluation of the psychological contract through the use of two separate scales that measure promises and fulfilment of those promises on a set of different dimensions, such as rewards or job content.

The literature review presented different ways of measuring psychological contract evaluation. Specific measures examine fulfilment or breach on an item level and global measures ask the respondent to give a global assessment of their perception of psychological contract fulfilment. Both ways of measuring psychological contract fulfilment have advantages and disadvantages. These were presented in section 2.4.3.3. Despite certain inherent disadvantages related to specific measures, Freese & Schalk (2008) suggest that specific measures are the preferred way of measuring psychological contract evaluation, as

the concept cannot be considered as a holistic one-dimensional construct. Regarding the analysis of fulfilment or breach of the psychological contract, the literature review presented different ways of examining promised and delivered inducements. The indirect way of calculating fulfilment or breach, by subtracting the scores for delivered inducements from the scores for promised inducements is sensitive to methodological problems concerning difference scores (e.g. Edwards & Parry, 1993, Edwards, 1994, Irving & Meyer, 1995). A possible solution for these methodological problems is the expanded view (Lambert et al., 2003, Montes & Irving, 2008, Lambert, 2011) that was presented in paragraph 2.4.4.

The conclusion of the literature review on psychological contracts and older employees is that there have not been many studies that used the concept to examine employees that are aged 45-55. There are a number of recent studies, most of them situated in the Netherlands, that examine the impact of age on the relationship between psychological contract breach and outcomes (Bal et al., 2008) and that study the impact of future time perspective on the relationship between psychological contract fulfilment and employee obligations (Bal et al., 2010).

These studies did not examine a sample aged 45-55 though. Regarding the contents of the psychological contracts of older employees, there has not been a study published in the Netherlands since Freese & Schalk (1995) that have explicitly examined the contents of the contracts that older employees perceive. The study presented by Freese & Schalk (1995) did not focus solely on older employees. The studies that have been published, usually examine the differences between the contracts of younger and older employees (e.g. Schalk, 2004, Hess & Jepsen, 2009).

Chapter Three

Research design and analysis

3 Research design and analysis

3.1 Introduction

In this chapter the methodological choices underlying this study will be explained. Besides the methodology we will describe how the research model and the hypotheses were defined. In order to do this, the research design, the development of the questionnaire that was used for this study, the scales and items that make up this survey, and the data collection process are presented. This chapter also provides the descriptive statistics and will present the analytical strategy that was adopted in order to test the different hypotheses.

A number of analytical techniques were used in order to test the hypotheses. The analysis part is made up of three sections, one presenting the exploratory and confirmatory factor analysis, another section describing the polynomial regression analysis, and finally a section presenting two sets of structural equation modelling.

3.2 Methodology

3.2.1 Research perspective and approach

The methodology that is used in research is the result of the adopted research perspective. There are different available research perspectives that a researcher can choose from. Morey & Luthans (1984) proposed using the distinction between emic and etic research perspectives in order to regroup the different possibilities. Rousseau & Tijoriwala (1998) described emic perspectives as frameworks that ‘are generated by the respondents themselves and are attempts to reflect the individual's mental model in an unfiltered fashion, unconstrained by preconceived notions of the researcher’. The result of choosing for an emic perspective is that the researcher will adopt a qualitative methodology. According to Morey & Luthans (1984) ‘etic designates the orientation of outside researchers, who have their own categories by which the subject's world is organized’. Rousseau & Tijoriwala (1998) describe the etic perspective as a theory oriented approach in which the researcher assesses ‘general

constructs, typically derived from theory, meaningful to individuals across a variety of settings’.

The etic perspective is traditionally used in organizational research (Morey & Luthans, 1984). The type of methodology that is often used within the etic perspective is quantitative research using data collected through structured surveys in which the researcher will test theory through the use of one or more hypotheses (Rousseau & Tijoriwala, 1998). Questionnaires are the method most frequently used in psychological contract research (Conway & Briner, 2005).

3.2.2 Research design

A one-group correlational design was used for this study. It is an observational study that determines the relationship between the variables that are included in the research model for a single sample (Spector, 1981). The research questions for this descriptive study are:

- What are the influences of deficient and excess inducements on the career intentions of older workers?
- What is the relationship between the absolute levels of fulfilment and the outcome variables?
- What are the differences between the individual psychological contract content dimension’s relationships with career intentions?
- What is the influence of a higher or lower identification with the social group of older workers on the different relationships?

This study adopts an etic research perspective. The approach of this study is therefore quantitative. The measurement of the different variables was realized through the use of a self-administered questionnaire that was filled out by a sample of 1100 Dutch employees in the age group 45-55.

The choice for a self-administered questionnaire was made because of several reasons. Firstly, a unilateral perspective on psychological contracts (Anderson & Schalk, 1998, Freese & Schalk, 2008) was adopted for this study. The unilateral perspective conceptualizes the

psychological contract as individual beliefs on the exchange relationship between employer and employee, which exists ‘in the eye of the beholder’ (Rousseau, 1989). This means that every employee should fill out the questionnaire in order for the answers to reflect his/her individual perception of the psychological contract. Secondly, self-reported measures have been indicated as the most direct source of information regarding psychological contract contents (Rousseau & Tijoriwala, 1998). Thirdly, the use of a questionnaire proved a solution for logistical difficulties as it made it possible to conduct the study of a Dutch sample from France.

The measurement of the data was done through the use of a cross-sectional design, which meant that all measurements were taken at one unique moment in time (Spector, 1981). Through the use of a set of hypotheses we wanted to test the research model that was derived from the literature review. The design of this model was based on the suggestion that different dimensions of the psychological contract contents can have a different outcome on the intentions to participate in career development activities and the intentions to accept certain mobility opportunities, if these were presented to the employee. The literature review has shown that the cognitive identification with a specific social identity or group can influence the relationship between different independent and dependent variables. The model therefore hypothesizes that the extent to which an employee identifies with the social identity of being an older worker acts as a mediator on the relationship between psychological contract content dimensions and the studied career intentions.

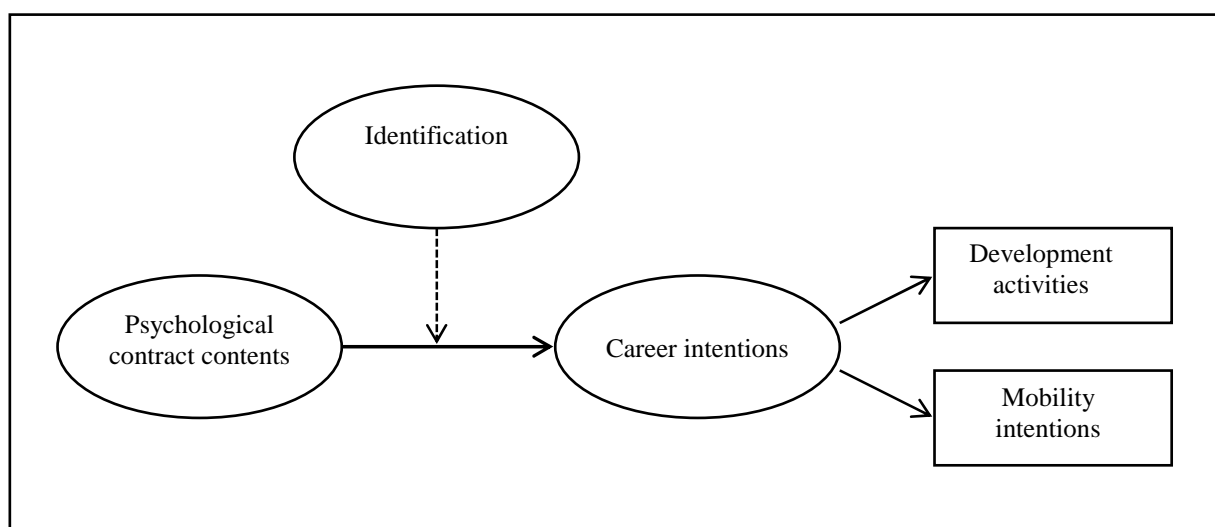


Figure 3.1 Research model

The goal was to test if there is a relationship between psychological contract contents and the selected outcome variables. The methods of data analysis that were used for this study are factor analysis, structural equation modelling, and polynomial regression analysis.

3.2.3 Hypotheses

In order to answer the research questions a number of hypotheses were tested. Research question one asked what the influences of the promised and delivered inducements on the career intentions of older workers are. This question was measured using hypothesis 1. Both under- and over-fulfilment can lead to psychological contract breach (e.g. Montes & Irving, 2005). Turnley & Feldman (2000) state that “psychological contracts can be ‘violated’ in the sense that important obligations have not been fulfilled or psychological contracts can be ‘over-fulfilled’ in the sense that the organization provides employees with more than they were promised.” Whereas some authors have approached over-fulfilment as being something positive (e.g. Conway & Briner, 2002), other researchers have raised questions on the type of over-fulfilment and its consequences (e.g. Lambert et al., 2003). If over-fulfilment by the employer would mean that employees would have to invest more of their time and effort, then ‘more’ or ‘higher’ fulfilment on inducements would not necessarily mean an increase in an outcome variable such as satisfaction (Guest, 1998).

Several studies concluded that both deficient and excess inducements can lead to more negative outcomes, such as higher levels of perceived psychological contract violation, lower levels of reported job satisfaction, or lower levels of accepting future mobility opportunities (Lambert et al., 2003, Irving & Montes, 2005, Montes & Irving, 2005, Montes & Irving, 2008). Deficient inducements do seem to have a larger effect size than excess inducements (Montes & Irving, 2008). According to Montes & Irving (2005) employees will show different reactions to delivered inducements, depending on the type of inducement and the result of the inducements delivered. Hypothesis 1 studies the effects of over- and under-fulfilment on the outcome variables and was tested through the use of polynomial regression analysis.

Deficient inducements refer to a situation close to the definition of breach by Morrison and Robinson (1997), who define breach as ‘the cognition that one’s organization has failed

to meet one or more obligations within one's psychological contract in a manner commensurate with one's contributions'. A meta-analysis by Zhao et al. (2007) found that psychological contract breach was negatively related to job satisfaction and organizational commitment, and positively related to turnover intentions. Breach is also related to negative attitudes towards the job and organization (Conway & Briner, 2005). We therefore hypothesize that employees who perceive that their employer did not keep his end of the bargain will be more likely to invest in development activities and/or are more likely to have intentions to accept mobility opportunities in order to change their job or position.

H1(a) Deficient inducements are positively related with development activities and mobility intentions.

Lambert et al. (2003) reported that excess inducements would be perceived as positive when the inducement in question would be applicable to a variety of employee needs and wishes. They found that over-fulfilment on compensation-related employer obligations resulted in higher job satisfaction, whereas over-fulfilment on skill development-related employer obligations had adverse results. Irving & Montes (2009) found similar results with the variables support and skill development, where excess inducements for skill development lead to lower levels of satisfaction. The explanation by Lambert et al. (2003) was that an over-fulfilment on compensation will lead to the employee being able to satisfy even more needs, whereas over-fulfilment on skill development opportunities might lead to a situation where the employee will have to invest too much time and/or effort, which will in turn interfere with the fulfilments of other needs and desires. Irving & Montes (2009) suggested that over-fulfilment on a dimension such as skill development might lead to the employee feeling overwhelmed with the consequences of this over-fulfilment, which in turn lowers satisfaction.

Both Lambert et al. (2003) and Irving & Montes (2005) found that excess inducements negatively influenced outcome variables when the excess inducement was not applicable to a variety of employee needs and wishes, and therefore detrimental to the employee. Similar results have been reported in other studies. Herrbach et al. (2009) studied the impact of new work roles such as coach or mentor on a group of older French managers and suggested that although companies offer these additional roles in order to create commitment, participants might show a drop in commitment, or even leave with early retirement because they potentially perceive these roles as an increase in pressure regarding workload and needed

skills. Maurer & Lippstreu (2008) reported that employees who receive more organizational learning and development than what they expect on the basis of their learning orientation might perceive these development activities negatively, which in turn lowers organizational commitment.

We hypothesize that over-fulfilment on the psychological contract dimensions job content, career development, and organizational policies will lead to fewer opportunities to satisfy other needs due to an increase in time and effort being required for these employer obligations, and will therefore be perceived as contract breach by the older employee. As with hypothesis 1a this will be an incentive for older workers to invest in development and be more willing to accept mobility opportunities in order to get improve their situation.

H1(b) Excess inducements on the employer obligations job content, career development, organizational policies are positively related with development activities and mobility intentions.

Over-fulfilment on compensation-related employer obligations (Lambert et al., 2003) and support (Irving & Montes, 2009) have been reported to lead to increased job satisfaction. Job satisfaction is positively related to the participation in development activities initiated by the organization (Birdi et al, 1997). Employee perceptions of employer obligations regarding the work context, such as work-life balance and social atmosphere, will be influenced by the individuals' characteristics (De Vos et al., 2009). Older workers appear to have higher expectations on relational employer obligations (Kalleberg & Rognes, 2000) and attach more importance to work-life balance (Beehr & Bowling, 2002, Ng & Feldman, 2007) and rewards (e.g. Freese and Schalk, 1996, Beehr & Bowling, 2002, Schalk, 2004).

Over-fulfilment on relational obligations such as social atmosphere and work-life balance is therefore likely to be received positively by older workers. A satisfied employee who perceives little incongruence between the current and ideal job will be less willing to accept mobility opportunities (Noe et al, 1988). If an employee is committed to the job then he/she is more likely to have an increased motivation for participating in training (Mathieu & Martineau, 1997). We hypothesize that when the employer delivers more than the promised levels of inducements regarding social atmosphere, work-life balance, and rewards that this will increase the employees' willingness to invest in development. Excess inducements on

these three psychological contract dimensions will further decrease employees' willingness to accept mobility opportunities as satisfied employees might be more inclined to reject job change (Noe et al, 1988, Van Vianen, 2007).

H1(c) There is a positive relationship between excess inducements on the employer obligations social atmosphere, work-life balance, rewards and development activities.

H1(d) Excess inducements on the employer obligations social atmosphere, work-life balance, rewards are negatively related to mobility intentions.

H1(e) There is a positive relationship between deficient inducements and perceived psychological contract violation.

H1(f) There is a positive relationship between excess inducements on the employer obligations job content, career development, organizational policies and perceived psychological contract violation.

The second research question focuses on the relationship between the absolute levels of fulfilment and the outcome variables. Hypothesis 2 represents this research question and was tested with polynomial regression analysis. Besides the influence of lower or higher than promised levels of delivered inducements we can also study the relationship between absolute levels of fulfilment on the outcome variables. (e.g. Lambert et al., 2003). The majority of the conventional measures to study fulfilment do not allow for an assessment of absolute levels of fulfilment. Most researchers use specific measures (Conway & Briner, 2005) that assess the extent to which a particular promise was fulfilled to study fulfilment through either direct or indirect measures (Freese & Schalk, 2008). The direct measure asks the employee to indicate the extent to which a specific set of promised inducements, provided by the organization, exceeds or falls short of promised levels. This means that the actual level of the obligation remain hidden, as we only establish the discrepancy between promised and delivered inducements.

The indirect measure will ask the employee to give an assessment of the extent to which inducements were promised and delivered. The result is a difference score that represents the discrepancy or (in)congruence between promised and delivered inducements.

Difference scores assume that the relationship between promised and delivered inducements and the outcome is only a function of the difference between the constructs, regardless of the constructs level (Cohen et al., 2010). The consequence is that difference scores assume that deliveries at the promised level would have the same outcomes, regardless if those levels would be low or high.

The extended view (e.g. Lambert et al., 2003) assesses the absolute levels of fulfilment. These absolute levels refer to the height of fulfilled promises on the fulfilment line, which runs from low promised and delivered to high promised and delivered inducements. Lambert et al. (2003) found higher levels of job satisfaction for higher absolute levels of fulfilment, while Irving & Montes (2005) reported that met expectations at higher absolute levels would lead to more positive intentions and attitudes than met expectations at lower levels. Montes & Irving (2005) found that feelings of perceived violation were higher when absolute levels of fulfilment were low and that the perception of violation decreased when the levels of absolute fulfilment increased. Lambert et al. (2003) reported a positive slope regarding the relation of the level of fulfilment for the selected inducements (pay, recognition, relationships, variety, skill development and career training) and satisfaction. For their sample, participants reported higher satisfaction in cases when both promised and delivered inducements were high than when promised and delivered inducements were low.

Higher absolute levels of fulfilment indicate higher levels of a variety of promised and delivered inducements that make up the HR practices mix in an organization. Higher levels of support, challenges, and general HR practices have been found to positively influence participation in development activities. De Lange et al. (2005), Armstrong-Stassen (2008) and Kooij et al. (2011) reported that for older employees to want to participate in development activities, they will have to be challenged in their jobs. Van Veldhoven & Dorenbosch (2008) found HR practices regarding career development to be related to developmental proactivity. Van Vianen et al. (2011) found that perceived developmental support positively moderated the relationship between age and the willingness to invest in formal learning and training activities. We therefore hypothesize that older workers will be more motivated to learn when absolute levels of fulfilment are higher.

H2(a) There is a positive relationship between the absolute level of fulfilment and development activities.

Job satisfaction has been found to have a negative relationship with the willingness to accept mobility opportunities (e.g. Noe et al., 1988). It has also been reported that older workers who have a positive career situation do not necessarily pursue an increase in pay or promotion (e.g. De Lange et al., 2010). We hypothesize older employees reporting high levels of absolute fulfilment will be less motivated to accept mobility opportunities that would change their current job context.

H2(b) There is a negative relationship between the absolute level of fulfilment and mobility intentions.

Higher absolute levels of fulfilment have been reported to lead to higher levels of job satisfaction (Lambert et al., 2003) and more positive intentions and attitudes (Irving & Montes, 2005). As higher absolute levels of fulfilment have been positively related with attitudinal outcome variables, we hypothesize that it will be negatively related with psychological contract breach.

H2(c) There is a negative relationship between the absolute level of fulfilment and perceived psychological contract violation.

The third research question is aimed at the differences between the psychological contract content dimensions that make up the TPCQ questionnaire (Freese et al., 2010). Apart from studying if either obligations or delivered inducements were more influential regarding the outcome variable, we also wanted to test the sign and significance of the relationships between the independent and dependent variables in a structural model. Several dimensions of the employer obligations were predicted to have a significant positive or negative relationship with the outcome variables. Based on the literature review, we hypothesized these to be social atmosphere, work-life balance, and rewards.

De Vos & Meganck (2009) used a five dimension version of the TPCQ and reported that the over 5000 participants in their study perceived all dimensions as being important elements of their psychological contracts. They asked participants to give a ranking of the contract dimensions. Social atmosphere was ranked as most important employer obligation, followed by career development and job content. The majority of participants for this study (67%) were aged 26-45. People will attach other meanings to work as they get older, which

leads to different priorities at different ages during the employment relationship (Schalk, 2004). Similar results were reported in other studies. In a meta-analysis Rhodes (1983) concluded that as people get older, they would shift from preferences such as growth opportunities towards extrinsic job characteristics. Several studies found that older workers report higher levels of obligations regarding salary, security, and bonuses based on performance, and a rewarding job (Freese and Schalk, 1996, Turnley and Feldman, 1999a, Kalleberg & Rognes, 2000, Westwood et al., 2001, Schalk, 2004). Besides performance related pay Schalk (2004) reported higher correlations for age and employer obligations regarding good work climate and open and direct communication.

This would suggest that social atmosphere would be a dimension with significant relationships with the dependent variables. We hypothesized that rewards and social atmosphere would be significantly positive related to development activities and negatively related to mobility intentions. As was explained before commitment and job satisfaction are thought to have an increased motivation for participating in training (Mathieu & Martineau, 1997) but will decrease employees' willingness to accept mobility opportunities as satisfied employees might be more inclined to reject job change (Noe et al, 1988, Van Vianen, 2007). After rewards and social atmosphere we selected work-life balance as third psychological contract dimension with a significant positive relation with development activities because it is often seen as more important for employees when they age (Murrell et al., 1996, Finegold et al., 2002). We hypothesize however that all three are negatively related with mobility intentions. Hypothesis 3 was tested using structural equation modelling.

H3(a) Social atmosphere, Work-life balance, and rewards have a significant positive relationship with development activities.

H3(b) Social atmosphere, Work-life balance, and rewards have a significant negative relationship with mobility intentions.

The last research question was aimed at the influence of a higher or lower identification with the social group of older workers on the different relationships. Desmette & Gaillard (2008) and Gaillard & Desmette (2010) reported that participants identifying themselves with the stereotype of an older worker, or being presented with positive and negative age stereotypes, were more likely to retire early and less likely to develop their

career. Age stereotypes also have an influence on the confidence, or self-efficacy for learning and development (e.g. Maurer, 2001) in that older workers who identify themselves with these stereotypes are less confident about their abilities to master that what is taught. As older workers are more likely to select certain development activities based on this confidence or self-efficacy (Kanfer & Ackerman, 2004), it is likely that the more they identify with the stereotype of being an older worker, the less willing they will be to participate in development activities.

Other research has shown that seeing oneself as a member of a specific social group leads to different behavior in the form of coping strategies (Tajfel & Turner, 1986). Besides adopting stereotype related behavior, these coping strategies show that people can try to move to a higher status group through social mobility. This would mean that they would show deviant behavior compared to the people that do identify with the social group. A study by Herrbach et al. (2009) concluded that assigning new work roles to a group of older French managers had a negative relationship with affective commitment and a positive relationship with early retirement. One of the possible explanations suggested by the authors was that older employees might try to break loose from the beliefs surrounding older workers. Gaillard & Desmette (2010) used the term stereotype threat, which according to the authors, can lead to people fleeing from certain settings in order to avoid being associated with specific negative stereotypes.

If the extent to which someone identifies themselves as being a member of the social group of older workers leads to different behavior it would seem logical that identification with the stereotype of being an older worker will also moderate the relationships in our research model. Hypothesis 6 assumes that the influence of obligations and delivered inducements on the outcome variables is different for participants in the high and low identification groups. In order to test hypothesis 4, the sample was divided in a high and a low identification group. A series of polynomial regression analyses was performed on both groups.

H4(a) There is a negative relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and development activities for the people in the low identification group.

H4(b) There is a positive relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and mobility intentions for the people in the low identification group.

Because we were also interested to see how the hypothesized model fits as a whole, structural equation modelling was used. Structural equation modelling is a relevant technique because it allows for simultaneous testing of all the latent variables in one model, in order to see how the hypothesized model fits the data (Byrne, 2006). With regard to the significant paths between the independent and dependent variables in the structural model that were tested for hypothesis 3, a final hypothesis tested the influence of the identification with the stereotype of being an older worker on the different structural paths.

The underlying idea for hypothesis 5 was that certain structural paths would only be significantly positive for either the low or the high identification group. If employees that have a low identification with the social group of older workers would want to distance themselves from this group through the use of coping strategies or otherwise, they would probably report a negative relationship between the dimensions social atmosphere, work-life balance and the career intentions, because those dimensions would be more important to the “older employee”. Hypothesis 5 was tested through the use of multi-group analyses in EQS.

H5(a) The dimensions social atmosphere and work-life balance are positively related with the career intentions for participants in the high identification group.

H5(B) The dimension rewards is positively related with the career intentions for participants in the low identification group.

Hypothesis		Sign
H1a	Deficient inducements are positively related with development activities and mobility intentions.	+
H1b	Excess inducements on the employer obligations job content, career development, organizational policies are positively related with development activities and mobility intentions.	+

H1c	There is a positive relationship between excess inducements on the employer obligations social atmosphere, work-life balance, rewards and development activities.	+
H1d	Excess inducements on the employer obligations social atmosphere, work-life balance, rewards are negatively related to mobility intentions.	-
H1e	There is a positive relationship between deficient inducements and perceived psychological contract violation	+
H1f	There is a positive relationship between excess inducements on the employer obligations job content, career development, organizational policies and perceived psychological contract violation.	+
H2a	There is a positive relationship between the absolute level of fulfilment and development activities.	+
H2b	There is a negative relationship between the absolute level of fulfilment and mobility intentions.	-
H2c	There is a negative relationship between the absolute level of fulfilment and perceived psychological contract violation.	-
H3a	Social atmosphere, work-life balance, and rewards have a significant positive relationship with development activities.	+
H3b	Social atmosphere, work-life balance, and rewards have a significant negative relationship with mobility intentions.	-
H4a	There is a negative relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and development activities for the people in the low identification group.	-
H4b	There is a positive relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and mobility intentions for the people in the low identification group.	+
H5a	The dimensions social atmosphere and work-life balance are positively related with the career intentions for participants in the high identification group.	+
H5b	The dimension rewards is positively related with the career intentions for participants in the low identification group.	+

Table 3.1 Overview of hypotheses

3.2.4 Operationalization of the research model and population

The variables included in the research model represent different scales that were used in the questionnaire survey. The psychological contract contents were measured by the Tilburg psychological contract questionnaire (Freese et al., 2010). The career intentions were measured using two separate scales. The first one is the scale career development activities, which was constructed from several existing scales. The second scale that was used is the scale mobility intentions, which was translated from Nicholson & West (1988). Identification with the social identity of being an older worker was measured, using the scale cognitive identification that was developed by Gaillard & Desmette (2008). The questionnaire design and the measures that are included in the questionnaire are discussed in the following paragraphs.

Older workers that were active on the Dutch labor market filled out the questionnaire. In order for participants to be able to participate they needed to meet three criteria. These were (1) aged 45-55, (2) have an employment contract within the Netherlands, (3) have at least an intermediate vocational education degree. The age group was selected because (1) 45-55 falls within the definition of older workers (e.g.), (2) this group should theoretically have between 10 and 20 years of their careers ahead of them. After the new policies aimed at reducing the early retirement schemes in the Netherlands were put in place employees should retire around the legal retirement age of 65. Although the average age of leaving the labor pool was 62 in 2007 (Otten et al, 2010), this still leaves the oldest participants in the sample with approximately 7 years of work before retiring.

The Dutch context was chosen in order to measure within the same country. As each European country has their own specific characteristics, a sample spread out over several EU member states might lead to large deviations between participants. All participants had to have an intermediate vocational education, higher vocational education, or University education degree. The reason for using this criterion is that we wanted to study people that are most likely to have mobility and development opportunities (Mathieu & Martineau, 1997).

3.3 Questionnaire design

3.3.1 *Creating the questionnaire*

The beginning of the questionnaire consisted of a cover letter/information page and a short introduction. This information was presented to companies and participants in order to explain what the goal of the study was and who could participate. Literature (e.g. Dijkstra & Smit, 2005, Fenneteau, 2007) advises to provide at least the following information: short presentation of the questionnaire, the context of the study, contact information, the importance of participation and the estimated time it would take to fill out the questionnaire. Since we were asking sensitive information we guaranteed that every questionnaire would be treated confidentially and offered the possibility to participate anonymously. As a quantitative study was chosen, all questions related to the research model had five-point Likert scales.

The order of the questions was organized in such a way that the questionnaire would represent the research model. The important questions that were relevant for the study were placed at the beginning and the other items were put at the end of the questionnaire so as to prevent potential problems with fatigue, interest and motivation to continue the questionnaire (Dijkstra & Smit, 2005).

Since the scales asking participants for employer and employee obligations and delivered inducements used the same items, these two scales were combined. These two scales were combined through the use of two columns. Each item had two response scales, or columns. Column A would ask to indicate the extent to which an item was perceived as an obligation. Column B would then ask the extent to which either employer or employee had actually delivered on that obligation. The number of items per page was kept to around fifteen. This allowed to ask for both obligations and delivered inducements of the psychological contract scales. At the same time it made it possible to put each of the subscales on the same page (Dijkstra & Smit, 2005).

Both smaller and larger fonts were tried out but lead to either an increase in the number of pages or too many items per page resulting in a questionnaire that was difficult to read. The items were numbered for each scale in order to prevent participants from perceiving

the total amount of questions as too many (Dijkstra & Smit, 2005). The questionnaire was put online and participants filled out the questionnaire on the website. The online questionnaire was an exact copy of the Word document. This made it possible to allow respondents to answer in the same way as they would on paper. All the items regarding the research model were answered by selecting/crossing out a box on a five-point Likert scale, thereby avoiding participants to get confused with numbers, letters and so on (Dijkstra & Smit, 2005).

3.3.2 Translation of items

The Tilburg Psychological Contract Questionnaire (Freese et al., 2010) was developed in the Netherlands and the items were made available in both Dutch and English by the researchers. This meant that the independent variables did not have to be translated from English into Dutch. The psychological violation scale, the dependent variables and the scale measuring identification were only available in English and had to be translated into Dutch before the questionnaire could be distributed.

A variation of translation/back-translation (Brislin, 1970) was chosen because this technique has better semantic problem solving characteristics than simple or modified direct translation (Behling & Law, 2000). The items of the different scales were translated from English into Dutch. These Dutch translations were given to a bilingual Dutch HR professional, who translated the items into English. The results were compared and no meaningful differences were found, which meant that a second round was not necessary.

Therefore all four basic steps of the translation/back-translation process were followed (Behling & Law, 2000). In order to avoid potential jargon from creating potential noise, the final list was presented to a bilingual Dutch researcher in another field. This person confirmed that the translation was coherent.

3.3.3 Pilot test

After the items were translated the questionnaire was tested on a number of aspects. The initial version of the questionnaire was sent to 7 people, aged 45-55. These people filled out the questionnaire and after participation they were asked to evaluate the questionnaire on

clarity, coherence, time to fill out the questionnaire, layout, and so on. Besides this pilot group, the questionnaire was also sent to two HR professionals and two academic professionals in order to gain additional feedback regarding aspects such as the wording of items, number of items, general impression, time to participate.

After testing the questionnaire, a number of items measuring extra-role obligations were deleted. This was done because some of the questions in the extra-role scale asked general questions regarding the participant's career intentions. After using the original 10 variables for the extra-role scale, the feedback from the participants in the pilot phase indicated that the test-group had difficulties with some of these variables of the extra-role behavior scale of the TPQC. The variables were confusing when the participants had to answer the more specific questions regarding development activities and mobility intentions. After listening to the participants of the test phase it became clear that participants felt that they were pushed in a certain direction with the (deleted) items of the extra-role scale.

The influence from one set of questions on another set of questions is called a contrast effect (Dijkstra & Smit, 2005). For some items there was also a risk of an assimilation effect (Dijkstra & Smit, 2005), which means that general questions might change the meaning of specific questions on the same topic. Dijkstra and Smit advise that, depending on the goal of the study; either general or specific questions should be deleted from a questionnaire in order to avoid potential contrast and/or assimilation effects. As the goal of these questions was to gather general information about the participants' ideas regarding extra-role behavior rather than to influence their responses on the intention scales, it was decided to delete the items that could potentially cause contrast and/or assimilation effects. This meant that only four of the original items of the extra-role scale appeared in the final version of the questionnaire.

3.4 Measures

3.4.1 Psychological contract

The items measuring the psychological contract contents were taken from the 2010 version of the Tilburg Psychological Contract Questionnaire (Freese et al., 2010). This version was chosen over the earlier version of the TPCQ because it also has the dimension

work-life balance, which was included in questionnaires used in other publications (e.g. De Vos, Stobbeleir & Meganck, 2009, Willem et al., 2010). The influence of factors outside of work can be important for older workers (Bal et al., 2008) and it therefore seemed appropriate to include a specific scale measuring work-life balance.

The questionnaire by Freese et al. (2010) asked respondents to give answers regarding obligations on an item-level, but asked participants to indicate the extent to which the employer had actually delivered on a scale level. The same response scales were used for indicating the extent to which the organization was obligated to provide each item and the extent to which inducements were delivered. Respondents gave their responses using a five-point Likert scale, ranging from ‘not at all’ to ‘to a great extent’.

Since we wanted to be able to measure both obligations and delivered inducements on an item level, a different response scale for delivered inducements was used for this study. Instead of asking a general indication regarding the entire scale, respondents were asked to indicate the extent to which the organization had provided each item on a five-point Likert scale, ranging from ‘not at all’ to ‘to a great extent’.

3.4.1.1 Employer obligations

The TPCQ (Freese et al., 2010) measures 6 different dimensions of employer obligations. These are job content, career development, social atmosphere, organizational policies, work-life balance and rewards. Each scale has a number of items that refer to a specific employer obligation. The items that make up the scales are presented below.

<i>Item code</i>	<i>No</i>	<i>Item description</i>	<i>Item code</i>	<i>No</i>	<i>Item description</i>
<i>conta1 / contb1</i>	1	Variation in your work	<i>orgpla1 / orgplb1</i>	1	Participation in important decisions
<i>conta2 / contb2</i>	2	Challenging work	<i>orgpla2 / orgplb2</i>	2	A fair supervisor
<i>conta3 / contb3</i>	3	Balanced workload	<i>orgpla3 / orgplb3</i>	3	Feedback on performance
<i>conta4 /</i>	4	Interesting work	<i>orgpla4 /</i>	4	Clear and fair rules and

<i>contb4</i>			<i>orgplb4</i>		regulations
<i>conta5 / contb5</i>	5	Autonomy	<i>orgpla5 / orgplb5</i>	5	Keeping you informed
<i>conta6 / contb6</i>	6	The opportunity to deliver quality goods/services	<i>orgpla6 / orgplb6</i>	6	Open communication
<i>cardva1 / cardvb1</i>	1	Career opportunities	<i>orgpla7 / orgplb7</i>	7	Ethical policies concerning society and environment
<i>cardva2 / cardvb2</i>	2	Training and education	<i>wbla1 / wblb1</i>	1	Consideration of personal circumstances
<i>cardva3 / cardvb3</i>	3	Coaching on the job	<i>wbla2 / wblb2</i>	2	Opportunity to schedule your own holidays
<i>cardva4 / cardvb4</i>	4	Professional development opportunities	<i>wbla3 / wblb3</i>	3	Working at home
<i>cardva5 / cardvb5</i>	5	Learning on the job	<i>wbla4 / wblb4</i>	4	Adjustment of working hours to fit personal life
<i>cardva6 / cardvb6</i>	6	Opportunities to fully utilize knowledge and skills	<i>rewa1 / rewb1</i>	1	Employment security
<i>satma1 / satmb1</i>	1	Good working atmosphere	<i>rewa2 / rewb2</i>	2	Appropriate salary
<i>satma2 / satmb2</i>	2	Offer possibilities for good cooperation	<i>rewa3 / rewb3</i>	3	Rewards for exceptional performance
<i>satma3 / satmb3</i>	3	Appreciation and recognition	<i>rewa4 / rewb4</i>	4	Reimbursement of training costs
<i>satma4 / satmb4</i>	4	Support from supervisor	<i>rewa5 / rewb5</i>	5	Good benefits package
			<i>rewa6 / rewb6</i>	6	Performance-based pay

Table 3.2 *Items and subscales measuring employer obligations*

3.4.1.2 Employee obligations

The items measuring the psychological contract contents regarding the employee were also taken from the TPCQ (Freese et al., 2010). The same scale were used for both obligations and delivered inducements. Respondents gave their responses using a five-point Likert scale, ranging from ‘not at all’ to ‘to a great extent’.

<i>Item code</i>	<i>No</i>	<i>Item description</i>
inrola1 / inrolb1	1	Good cooperation
inrola2 / inrolb2	2	Helping colleagues
inrola3 / inrolb3	3	Provide good service to customers
inrola4 / inrolb4	4	Performing well on tasks you do not like
inrola5 / inrolb5	5	Integrity
inrola6 / inrolb6	6	Dedication to your work
inrola7 / inrolb7	7	Being cost-conscious when dealing with organizational properties
inrola8 / inrolb8	8	Dealing with private matters at home
inrola9 / inrolb9	9	Complying with organizational rules and regulations
inrola10 / inrolb10	10	Protect the organization's image
inrola11 / inrolb11	11	Contributing to a pleasant working atmosphere
xtrola12 / xtrolb12	1	Keeping knowledge and skills up to date to be able to deal with changing requirements
xtrola13 / xtrolb13	2	Making suggestions for improvement
xtrola14 / xtrolb14	3	Volunteering to do additional tasks
xtrola15 / xtrolb15	4	Working over time if that is necessary to get the job done

Table 3.3 *Items measuring employee obligations*

3.4.1.3 Violation

Psychological contract violation was measured with a separate contract violation scale, which was developed by Robinson & Morrison (2000). As was described in paragraph 2.5.2, this measure has shown high reliability in several studies (e.g. Bordia et al., 2008, Raja, Johns & Ntalianis, 2004, Hekman et al., 2009).

	<i>I feel:</i>	
viol1	1	A great deal of anger towards my organization
viol2	2	Betrayed by my organization
viol3	3	That my organization has violated its obligations towards me
viol4	4	Extremely frustrated by how I have been treated by my organization

Table 3.4 Items measuring psychological contract violation

3.4.2 Career intentions

The career intentions that were measured in this study can be divided into mobility intentions and career development intentions. Both were chosen because they are part of the larger concept of employability (Van Dam et al., 2006). Although the questions might give the impression that they are measuring different kinds of behavioural intentions, this is not the case. Participants were presented with two sets of situations, in which they could choose whether to accept or not. When the participant has this control, also indicated as volitional control, intentions can be measured by what one (1) wants, (2) will try, (3) will do (Fishbein & Stasson, 1990).

3.4.2.1 Mobility intentions

The career mobility intentions were taken from Nicholson & West (1988). Respondents were asked to indicate the extent to which they would accept any of the career options that were presented to them on a five-point Likert scale, ranging from ‘not at all’ to ‘to a great extent’.

<i>To what extent would you accept the following career options if they were to you offered tomorrow?</i>		
<i>Item code</i>	<i>No</i>	<i>Item description</i>
mob1	1	Another job with more responsibilities at your current employer
mob2	2	Changing employers for another job with more responsibilities

mob3	3	A promotion within the same job at you current employer
mob4	4	Changing employers in order to get a promotion in the same job
mob5	5	Another job at the same hierarchical level at your current employer
mob6	6	To change employers for another job same hierarchical level
mob7	7	Another job with fewer responsibilities within your organization
mob8	8	Changing employers for another job with fewer responsibilities
mob9	9	A demotion within the same job at you current employer
mob10	10	Changing employers in order to get a demotion in the same job

Table 3.5 Items measuring mobility intentions

3.4.2.2 Career development activities

The career development activities scale was designed from a number of previous developed scales. Development activities 1 and 2 were taken from Hurtz & Williams (2009). Maurer et al. (2008) and Renkema et al. (2008) used the third activity in their studies. Activities 4 through 6 were taken from Birdi et al. (1997). Activity 4 was also used by Hurtz & Williams (2009) and Maurer et al. (2008). The 5th activity was also used by Renkema et al. (2008). Respondents were asked to indicate how likely they were to undertake a variety of job- and career related development activities, using a five-point Likert scale, ranging from 'not at all' to 'to a great extent'.

One reason for selecting both job- and career related development activities is that internal preparedness for change and intentions to continue outside of the company are determinants of employability (Schyns et al., 2007). If one would only look at development activities aimed at internal change, then this would mean that a certain aspect of the employability concept would be overlooked. Another reason is that older people might be active regarding development activities outside of the company context (Kanfer & Ackerman, 2004) and that focussing on job-related activities during work time might not accurately measure the development intentions of participants.

<i>To what extent are you planning to undertake the following this year?</i>		
<i>Item code</i>	<i>No</i>	<i>Item description</i>
devact1	1	I will ask my manager for feedback on my job-related behaviors, performance and skills
devact2	2	I am going to make an overview of my strengths and weaknesses in my job
devact3	3	I will actively participate in development activities for my current job
devact4	4	I will enrol in a college/university course or program in order to obtain a qualification that is relevant to my career
devact5	5	I intend discussing my personal development and career with my manager during a formal meeting
devact6	6	I will subscribe to job sites in order to assess my possibilities on the labor market

Table 3.6 Items measuring development activities

3.4.3 Identification with older workers

The scale measuring the cognitive identification with the stereotype of being an older worker was taken from Gaillard & Desmette (2008).

<i>To what extent can you identify with the following propositions?</i>		
<i>Item code</i>	<i>No</i>	<i>Item description</i>
identif1	1	I see myself as an older worker
identif2	2	I have a lot in common with other older workers
identif3	3	I see myself as belonging to the older workers

Table 3.7 Items measuring cognitive identification with older workers

3.5 Data collection

3.5.1 Online data collection

The data was collected using an online questionnaire. The choice for an electronic version of the questionnaire was made for several reasons. The first reason was that the study was conducted from France and the participants from the sample were working on the Dutch labor market. Internet offers instant data transfer and the use of an online questionnaire eliminated possible logistical problems such as sending and returning the questionnaires by standard mail. A second reason was that by offering the possibility of filling out and sending the questionnaire directly, people might give less biased answers because of the absence of any company representative (Weijters et al., 2008).

Another reason for opting for the electronic questionnaire was that all but one participating organizations preferred the online questionnaire. Most companies preferred the online questionnaire because this meant that they only needed to distribute the request and information regarding the study amongst their employees, thereby indicating that the organization itself did not have anything to gain with the outcomes of the study.

A number of HR professionals stressed the importance of participating in an external online study as they have a periodical, paper-based, employee survey that they ask employees to fill out. They did not want to distribute any other paper-based questionnaires within the company, as this might influence participation in the companies' upcoming survey. Besides positive aspects of an online survey, such as being cost-effective and time saving because results can be used almost instantly (De Beuckelaer & Lievens, 2009, Davidof & Depner, 2011), there are also a number of possible negative aspects to using an online questionnaire.

According to several authors (e.g. Taris et al., 2005 and Jin, 2011) there are two potential problems regarding online data collection. These are the representativeness of the sample and the quality of the collected data. The representativeness of the sample was a big problem in the early days of the Internet, when only specific groups had access to the worldwide web (Bandilla et al., 2003, De Beuckelaer & Lievens, 2009). When only a specific subgroup has Internet access, the data cannot be representative as this will lead to a coverage

error (Davidof & Depner, 2011). The problem with representativeness has been reduced considerably because of better Internet access over the last few years and is likely to improve in the near future (Jin, 2011). For this study Internet access of the participants within the targeted sample was not considered a problem, because the sample is made up of professionals that are all active on the Dutch labor market as an employee. We can assume, when considering the type of functions these professionals have, that all the potential participants have at least a professional e-mail address provided by their employer. Therefore, a coverage error was not anticipated.

When assessing if the potential online sample is representative or not, a number of other aspects of Internet and Internet use can be of importance. Taris et al. (2005) identify response rates, spam filters, mail and account problems. Mail and account problems, such as a full mailbox are less relevant than a few years ago. Personal and work email accounts offer much more storage than before. Spam filters can be a problem when the IP-address is on a providers black list or when attachments are included to the sent mail. Since the emails were sent from a university IP-address where the IT department would be aware of any potential problems with providers, no problems were encountered with the mail delivery.

In order to prevent the sent emails to end up in the unwanted folder of the recipients, the mail did not include attachments and was sent using the program Serbacane. This program assesses the probability of an e-mail being blocked by a spam filter. Serbacane classified the risk of the sent emails being blocked as low.

It is reported that there are differences in response rates for Internet and paper based surveys. Different articles give different response rates and report either lower, comparable or higher response rates for Internet based surveys (Barrios et al., 2010). Dillman et al. (2009) mention an average response rate of 13% for Internet surveys. A meta-analysis conducted by Manfreda et al. (2008) found that web based surveys that were included in the study had a response rate between 6-15%.

Barrios et al. (2010) state that the differences in response rates for internet based surveys are due to, among others, sample characteristics, questionnaire design and questionnaire topic salience. Topic salience is the importance that participants attach to the

topic. When people within the targeted sample feel that the topic is important, they will be more likely to participate.

For this study, the topic and context were clearly described in the cover letter/e-mail. Because of the changes to the Dutch retirement system, the late career is a highly discussed topic in both organizations and in the Dutch media. By placing this study in the current socio-economical context an effort was made to increase the importance of the topic for the potential participants.

As stated before, the questionnaire was designed in such a way that participants were more likely to continue and finish the survey. Sample characteristics also influence the response rate of an online questionnaire. According to Barrios et al. (2010) education has a clear positive effect on response rates for surveys. The authors found higher response rates for online questionnaires for a sample of participants with a PhD. The combination of potential topic salience and the education level of the participants was therefore likely to positively influence the response rate for this online survey.

The second potential problem identified by Taris et al. (2005) is the quality of the collected data. One of the ways that data quality can be assessed is by looking at the non-response (Manfreda et al., 2008). This is the completion rate of the questionnaire (Dillman, 2000). Non-response can occur on an item level and at a unit level, where there is a total lack of response and affects the quality of both online and paper based questionnaires (Davidof & Depner, 2011). Taris et al. (2005) state that the quality of data collected with an online survey is probably not as good as the quality of data that was collected with a paper-based questionnaire. They question the time and effort that a participant will assign to the questionnaire. Other researchers share this idea. As Barrios et al. (2010) put it “The underlying idea that supports these findings is that Internet users tend to read more quickly, scanning documents rather than reading them carefully, and may therefore be less careful when responding to web questionnaires”.

However the authors go on saying that a number of studies show a lower non-response for online surveys and report a higher quality of returned online questionnaires for a sample of Spanish PhD holders. De Beuckelaer & Lievens (2009) also reported a higher completion rate. A number of recent articles have stated that the data from paper based and online

surveys, used within the same sample, are not different and can be used together in the data analysis (e.g. Bandilla et al., 2003, Davidof & Depner, 2011, De Beuckelaer & Lievens, 2009, Dillman et al., 2009).

The choice for an online survey was made after looking at the possible advantages and disadvantages listed above. Seen as the participants are assumed to have good internet access, a working e-mail address and posses potentially good sample characteristics, no particular problems were anticipated regarding the representativeness and the quality for this particular online survey.

3.5.2 Data collection

Companies and professionals were contacted through e-mails and letters and in a number of cases we were allowed to put an announcement on websites/in professional groups, were it was likely that people from the target group would read the information. The cover letter, e-mail and announcements all contained the same information regarding the study. In order to improve response rates the Dutch adaptation of the American total design method by Dijkstra & Smit (2005) was used to decide on which information to include in the cover letter. The authors state that the following should be included in a cover letter:

- Name of the research institute
- A description of the study and its goal
- The relevance of the study
- The way that contact data was gathered
- The possibility of anonymous participation
- The promise of confidentiality
- Contact email address and phone number.

We also included the possibility of being informed of the final results of the study. After the initial letter or e-mail, a follow-up e-mail was sent three weeks later. As advised by Dijkstra & Smit (2005), a second reminder was sent after seven weeks.

The questionnaire was placed on a website. Participants were given the URL to the website where they could fill out the questionnaire. After reading the information on the index

page, participants could proceed to the questionnaire. The layout of the Word file was copied on the website, making both questionnaires identical. As this was not possible using available standard solutions on a number of websites specialized in online surveys, the word file was replicated using a PHP-script.

This kind of programming allows for much more possibilities concerning layout and output files. At the end of the questionnaire participants were given the possibility to give in their e-mail address. After completing the questionnaire, participants had to press the send button in order for the results to be sent to the survey email address. If the e-mail address provided by the participants was not correct, the e-mail was be bounced by the e-mail provider and the failure notice would also be received by the survey e-mail address. Out of over 1100 participants, only 2 e-mails could not be delivered to the e-mail address given by the participant.

The e-mail that was received after completion contained the results in an attached CSV file that can be opened in Excel and in SPSS. This eliminated the manual input of results in an Excel spread sheet. One company opted for the possibility to use paper questionnaires instead of the online version. When using both a paper and electronic version of a questionnaire, the used term is mixed-modes (Dillman et al., 2009). A number of recent studies on the differences in the way that participants from the same sample answer paper based and online versions of the same questionnaire show that these two methods do not lead to different results (Bandilla et al., 2003, Davidof & Depner, 2011, De Beuckelaer & Lievens, 2009, Dillman et al., 2009). According to De Beuckelaer & Lievens (2009) the data that was obtained through an online and paper based survey can be merged.

A total of 1637 companies and government institutions were selected from lists obtained through the chambers of commerce or regional directories. Because initially government institutions seemed to be more interested in participating, a quota sampling technique was used, so as to ensure sufficient participation from the private sector. Companies were contacted through e-mail or standard letter in several rounds of data collection (about 300 companies per round) between March and September 2010. Out of these companies, 199 send a negative reply and 37 accepted to participate in the study. Of 34 companies the contact data was out-dated and we were not able to contact them after receiving an error message from a server. The main reason that companies communicated for

not participating were (1) a lack of time, (2) the fact that the company was holding their own employee satisfaction survey and that they felt that this study might interfere with that, or (3) the potential consequences of employees perceiving negative future events due to the very bad economic climate.

The third reason was the most frequent one reported by companies. In 2010 the first real effects from the 2008 crisis were becoming clear in the Netherlands and a number of companies were having difficulties. The HR departments of a number of companies therefore thought that this was not the appropriate time for a study about the expectations of employees regarding their employment relationship.

The resulting low response from companies led to an alternative approach. Parallel to the quota sampling through e-mails and letters, convenience sampling was used through ads and a list with 25 large and well-known companies operating in the Netherlands. A number of ads were placed in professional groups, such as the Dutch HR-NL Community group on LinkedIn. In the data collection period, this group had between 6000 and 8000 members, all of them HR professionals. The ads resulted in both individuals and companies contacting the e-mail address in the announcement. During the data collection phase a total of over 1136 participants filled out the questionnaire. Since the online questionnaires were saved as a CSV file, the data from the participants was imported directly into an SPSS file. Out of the 1126 questionnaires that were received, a total of 26 were excluded from the study because of a large number of missing answers. The final sample consisted of 1110 participants. All workers were aged 45-55 years at the time of the study ($M=50$, $SD=3,2$) and were working on the Dutch labor market. Participants either had an intermediate vocational education, higher vocational education, or university education degree.

3.6 Descriptive statistics

3.6.1 Sample

The total sample consisted of 1110 participants. The characteristics of this sample were as follows: 53,8% male and 46,2% woman, 16,5% was single and 83,5% was living together or married, 32,3% was a union member against 67,7% having no union membership, 54,6% worked in the public sector and 45,4% had an employment contract in the private

sector. Over 50% of participants have worked for the current employer for up to 10 years. Almost 85% of the sample has been working in the current position for up to 10 years, with 63% of participants working in the current position for less than 5 years. Table 3.7 presents both statistics.

<i>Number of years working:</i>	<i>For current employer</i>	<i>In current position</i>
<5	31,5%	63%
5-10	20,9%	21,9%
10-15	10,8%	7,4%
15-20	11,1%	3,5%
20-25	10%	1,6%
25-30	9,5%	1,9%
30-35	4,9%	,6%
35-40	1,4%	,3%

Table 3.8 Number of years that participants worked for current employer and position

The majority of participants worked full-time, with 79,9% of the sample working between 30 and 40 hours a week. A few participants (.4% of the sample) worked over 40 hours a week. Of the participants working part-time 15,1% works 20-30 hours, 3,9% 10-20 hours, and ,8% worked fewer than 10 hours per week. Regarding the education level of participants, we can report that 20,1% had a degree at an intermediate vocational education level, 54,5% at a higher vocational education level, and that 25,4% of participants had a University education degree. The hierarchical positions of participants at the time of the survey were 39,9% at an operational level, 36,5% at a middle management level, and 23,7% at a higher management level. The vast majority (82,6%) of participants desired to retire between the ages of 61 and 69. Almost half of the sample wanted to retire from the ages of 64 to 66. The majority of participants worked for bigger companies, with 58% of the sample working in an organization with more than 500 employees. Small and midsized companies made up for 42% of the sample, with 14,6% and 27,4% respectively. This repartition is not exactly the same as the repartition in the Netherlands, although the companies employing over 500 employees are the biggest category for both the sample and the Netherlands.

<i>Number of employees</i>	<i>Sample</i>	<i>Netherlands</i>
<50	14,6%	29,7%
50-500	27,4%	25,9%
>500	58%	44,4%

Table 3.9 Company size; comparison between sample and the CBS data for the Netherlands (Statline, December 2009)

There was variety as to the economic activity of the participants' companies. The repartition regarding the economic activity of the employer was as follows: Agriculture and Fishing (0,4%), Manufacturing (6,8%), Building/Construction (2%), Healthcare (23,9%), Food/drink Industry (0,1%), Financial intermediation and insurance (1,2%), Transport and Logistics (4,9%), Public Administration (24,8%), Education/Science (5,9%), Communication, Sales and Marketing (1,7%), Tourism/Leisure/Entertainment (0,6%), Wholesale and Retail (1,5%), Financial Services (11,5%), Miscellaneous services (3,8%), IT (7,4%), and Other (3,5%). Table 3.10 compares the sample with the percentages from Statline from 2009.

<i>Economic activity</i>	<i>Percentage in sample</i>	<i>Code in SBI '93</i>	<i>Percentage in the Netherlands</i>
Agriculture and Fishing	0,4%	A+B	1,4%
Manufacturing	6,8%	D+E	10,7%
Building/Construction	2%	F	4,7%
Healthcare	23,9%	N	16,4%
Food/drink Industry	0,1%	H*	..
Tourism/Leisure/Entertainment	0,6% 0,7%	H*	4%
Financial intermediation and insurance	1,2%	J	4,4%
Transport and Logistics	4,9%	I	5,5%
Public Administration	24,8%	L	6,6%
Education/Science	5,9%	M	6,6%

Communication, Sales and Marketing	1,7%	K*	..
Financial Services	11,5%	K*	..
Miscellaneous services	3,8%	K*	..
IT	7,4% 24,4%	K*	19,1%
Wholesale and Retail	1,5%	G	16,2%
Other	3,5%	C	4,4%
Total	100%		100%

Table 3.10 Economic activity; comparison between sample and the CBS data for the Netherlands (Statline, December 2009)

3.6.2 Scales

The values for skewness are all negative, indicating that there is a certain build-up of high scores (Field, 2009), indicating that participants gave relatively high scores on the individual scales. The kurtosis values are different for each type of scale. The employer obligation scales show positive kurtosis levels, whereas the delivered inducements scales show negative values for kurtosis. This indicates that the distribution of the data for the employer obligations is more peaked around the mean and that the data for the delivered inducements is flatter and more equally distributed. All values for the employee obligations are positive and seem to be closer, indicating that obligations and delivered inducements are distributed more similarly.

All values for skewness and kurtosis were well below the cut-off points for normal distribution (Fabrigar et al., 1999). Z-scores were not calculated for both skewness and kurtosis, as these will probably be significant even for a fairly normal distribution when a large sample is concerned (Field, 2009). The descriptive statistics for the scales (minimum score, maximum score, standard deviation, skewness, and kurtosis) are presented in table 3.11.

	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. Job content A	7	30	23.31	2.75	-.541	2.119
1. Job content B	6	30	20.99	4.01	-.631	.943
2. Career development A	6	30	23.60	3.18	-.688	3.033
2. Career development B	6	30	18.67	4.82	-.142	-.212
3. Social atmosphere A	4	20	16.23	2.19	-.473	1.910
3. Social atmosphere B	4	20	12.75	3.40	-.293	-.176
4. Organizational policies A	12	35	28.79	3.48	-.729	1.947
4. Organizational policies B	7	35	21.79	5.47	-.177	-.053
5. Work-life balance A	6	20	15.13	2.46	-.244	.432
5. Work-life balance B	4	20	14.07	3.31	-.400	-.006
6. Rewards A	6	30	22.94	3.24	-.450	1.943
6. Rewards B	6	30	18.95	4.30	-.252	.057
7. In-role A	28	55	46.33	4.06	-.040	.484
7. In-role B	24	55	45.76	4.35	-.067	.870
8. Extra role A	5	20	15.83	2.17	-.216	.841
8. Extra role B	7	20	15.89	2.34	-.380	.550
9. Violation	4	20	8.07	4.29	.840	-.319
10. Mobility intentions	10	50	23.79	5.57	.077	.566
11. Development activities	6	30	18.42	4.94	-.190	-.224

Table 3.11 Descriptive statistics questionnaire scales

The means that are mentioned above cannot be compared without taking into account that the different scales have a varying number of items. We divided the means by the number of items of each scales, so that we can compare their levels. Table 3.12 shows that work-life balance and job content have the smallest differences with perceived obligations and the delivered inducements. Rewards is somewhere in-between the lower and higher

discrepancies. The biggest differences between obligations and delivered inducements are shown by the dimensions organizational policies (1), Social atmosphere (0.87), and career development (0,82). When looking at the means for employer obligations we see that the obligations regarding the employer are perceived highest for organizational policies and social atmosphere. The perceived employer obligations for work-life balance and rewards are perceived as being the lowest of the dimensions. For delivered inducements participants reported the lowest perceived scores for career development and organizational policies, while work-life balance and job content got the highest mean scores.

<i>Scale</i>	<i>Cont</i>	<i>Cardv</i>	<i>Satm</i>	<i>Orgpl</i>	<i>Wlbl</i>	<i>Rew</i>
A	3.89	3.93	4.06	4.11	3.78	3.82
B	3.50	3.11	3.19	3.11	3.52	3.16

Table 3.12 Relative means for employer obligation scales

Compared to the employer obligations there seems to be fewer differences between the employee obligations and the levels of delivered inducements from their side. The mean scores between columns A and B are close. For extra-role obligations employees even reported a higher perceived score on delivered inducements compared to what they were obligation to provide their employers. If we compare the means for the employee and employer obligations scales, it seems that employees believe that they deliver more or less on their obligations, whereas the employer is perceived to fall short on all dimensions. The differences between the mean scores indicate that 4 out of 6 employer scales show bigger differences than reported for both employee scales.

The correlation matrix with the mean and standard deviation of the scales that were used can be found in figure 3.2.

Correlations

	Mean	SD	conta	cardva	satma	orgpla	wilbla	rewa	tinrda	txtrda	contb	cardvb	satmb	orgplb	wilblb	rewb	inrolb	xtrolb	viol	mob	devact			
conta	23,31	2,75	1																					
cardva	23,61	3,18	.436**	1																				
satma	16,23	2,19	.351**	.437**	1																			
orgpla	28,79	3,48	.321**	.498**	.560**	1																		
wilbla	15,13	2,46	.333**	.306**	.336**	.319**	1																	
rewa	22,94	3,24	.323**	.455**	.417**	.503**	.382**	1																
tinrda	46,33	4,06	.212**	.301**	.365**	.432**	.187**	.349**	1															
txtrda	15,83	2,17	.164**	.205**	.147**	.205**	.163**	.243**	.570**	1														
contb	20,99	4,01	.116**	-.081**	.019	.000	.056	-.019	.131**	.107**	1													
cardvb	18,67	4,82	-.002	.024	-.029	-.020	.005	-.030	.080**	.093**	.687**	1												
satmb	12,75	3,40	.025	-.066*	.056	-.031	.035	-.060	.054	.012	.632**	.659**	1											
orgplb	21,79	5,47	-.005	-.076*	-.003	.043	.041	-.045	.082**	.016	.636**	.691**	.801**	1										
wilblb	14,07	3,31	.023	-.063*	-.038	.013	.259**	-.061*	.042	.052	.475**	.426**	.495**	.505**	1									
rewb	18,95	4,30	-.017	-.016	-.014	.034	.060	.082**	.053	.039	.505**	.647**	.552**	.586**	.494**	1								
inrolb	45,76	4,35	.141**	.174**	.244**	.308**	.131**	.286**	.670**	.420**	.231**	.153**	.170**	.176**	.119**	.097**	1							
xtrolb	15,89	2,34	.126**	.131**	.101**	.170**	.118**	.155**	.389**	.616**	.209**	.178**	.105**	.108**	.122**	.098**	.569**	1						
viol	8,07	4,29	.076*	.134**	.084**	.089**	.040	.125**	.004	.016	-.556**	-.556**	-.623**	-.636**	-.412**	-.492**	-.107**	-.066*	1					
mob	23,79	5,57	.018	.079*	.054	.041	.141**	.081**	-.014	.078*	-.179**	-.207**	-.202**	-.227**	-.102**	-.141**	-.029	.065*	.248**	1				
devact	18,42	4,94	.173**	.244**	.077*	.157**	.159**	.195**	.168**	.223**	-.032	-.008	-.106**	-.071*	-.022	-.044	.121**	.236**	.111**	.391**	1			

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Figure 3.2
Correlation matrix

3.7 Analysis I – Factor analysis

Several studies used different variants of the TPCQ (Freese et al., 2010) scales to measure obligations and/or fulfilment of the psychological contract content for different samples. Some of these samples were new hires working in industries such as telecommunication, electronics, consulting, and financial services (De Vos et al., 2003), Flemish Millennials (De Hauw & De Vos, 2010), Dutch employees of healthcare institutions (Freese et al., 2008) and graduates of The Hotelschool The Hague that have been working in the hospitality industry since their graduation (Blomme et al., 2010). Therefore a factor analysis was performed.

3.7.1 Factor analysis

Some of the studies that used the TPQC focused on obligations (De Vos et al., 2009) and other studies either measured obligations and fulfilment (De Vos et al., 2003), or limited the study to fulfilment alone (Freese et al., 2008). As there was no data available on the TPCQ obligations factor structure for different samples, due to the use of different variants of the questionnaire and variety in research design, exploratory factor analysis was used as a first step instead of confirmatory factor analysis.

3.7.1.1 Exploratory factor analysis

An exploratory factor analysis was performed to identify the latent factors for the employer and employee obligations, measured by the TPCQ. Exploratory factor analysis was performed because the results of previous studies that used the selected scales cannot be generalized. In order for generalization of the results to be possible, analysis will have to show the same factor structure using different samples (Tinsley & Tinsley, 1987, Field, 2009). Principal Axis Factoring (PAF) and Principal Components Analysis (PCA) are the two EFA methods that are most widely used (Henson & Roberts, 2006). PAF and PCA are known to give similar results when communalities are high for all variables and when a large number of variables were measured (Field, 2009).

For this study, PAF was selected because it is the only method that focuses explicitly on the latent factors (Fabrigar et al., 1999, Henson & Roberts, 2006). A PCA was run on the data and did give the same results as the PAF. The factor loadings were higher than the loadings obtained with PAF, but this is not exceptional, as factor loadings tend to be higher when using PCA (Fabrigar et al., 1999). To avoid different orders of scores on factor loadings between the factors, all were established using the same PAF EFA with promax rotation.

3.7.1.2 Employer obligations

A separate Principal Axis Factoring analysis (PAF) with promax rotation was conducted on the 33-items that measure the employer obligations. The analysis was conducted using SPSS 19. Field (2009) advises to determine if (1) sample size, (2) correlations between variables and (3) distribution of data are appropriate for factor analysis before it is conducted. There are a lot of different guidelines regarding sample size (Pedhazur & Pedhazur, 1991, Field, 2009). Dependent on the researchers, estimates varying roughly between 200 and 500 participants are often stated as the minimum sample size for factor analysis with less than ideal values on for instance factor loadings or communalities (Fabrigar et al., 1999, Pedhazur & Pedhazur, 1991, Field, 2009). The sample size of over 1100 participants exceeded all of these estimates.

Sampling adequacy was further verified with the Kaiser-Meyer-Olkin measure. The KMO value was .912 for the initial PAF analysis, which according to Field (2009) can be qualified as being a 'superb' value. After deleting a number of variables, the KMO value for the final 24-item factor structure decreased to .891. Field (2009) qualified this value as being 'great'.

The correlation appropriateness means that the correlations between the variables cannot be too low or too high (Field, 2009). All variables are correlated higher than .3 with the other variables measuring the same factor. Furthermore, Bartlett's Test of Sphericity was significant for both the initial and the final PAF analysis, indicating that the correlations between the variables are strong enough to conduct a factor analysis (Field, 2009). Apart from one correlation of .75 all variables are correlated below .70 with the other variables measuring

the same factor, indicating that there is no problem with multicollinearity (Field, 2009). The correlation matrices for the different factors can be found below.

The third indicator proposed by Field for assessing the appropriateness for factor analysis is the distribution of data. According to the guidelines by Fabrigar et al. (1999) the distribution for the employer obligations data was not 'non-normal'. All variables showed values for skewness < 2 and values for kurtosis < 7 . Rotation refers to a change in the correlations between factors and indicators that a researcher uses in order to create a more distinct pattern of values (Kline, 1998).

One of the choices that we are faced with when opting for the type of rotation method is between orthogonal and oblique rotation. The distinction between these two types of rotation methods is the fact that factors are expected to correlate or not (Field, 2009). The variables used in the questionnaire are measuring psychological constructs and should be related. When underlying factors are assumed to be related, oblique rotation is advised (Fabrigar et al., 1999, Field, 2009). After choosing the type of rotation method, the second choice is that of the rotation method itself. Promax was selected as rotation method. Promax was designed for larger samples (Field, 2009), is considered to work well (Ford et al., 1986) and offers the best oblique procedures, according to Howard et al. (1987).

Extraction of factors was performed using the Kaiser criterion of retaining factors with eigenvalues > 1 in combination with the scree test. The Kaiser criterion is the most widely used extraction criteria for factor analysis. Adding an alternative criterion like the scree test is recommended because the Kaiser criterion does not necessarily estimate the correct number of factors (Ford et al., 1986, Fabrigar et al., 1999, Henson & Roberts, 2006). Seen as the original factor structure consisted of 6 factors, an additional analysis was run, using the same amount of factors as a 'fixed number of factors' for the analysis. Both extraction methods gave the same final result. When the initial factor analysis was run using Eigenvalues > 1 , the results showed 7 factors. The factor rewards was split up into two groups with Performance-based pay and Rewards for exceptional performance being the variables making up the second group.

However after deleting the different variables with low factor scores and low communalities both extraction methods show a 6-factor structure for employer obligations.

The initial 7-factor structure had a total variance explained (TVE) of 50,26%. The final 6-factor structure had a TVE of 55,04%. Table A2.2 in appendix 2 shows the cumulative and factor related percentages of variance explained.

Almost all communalities were in the .40 to .70 range, which Fabrigar et al. (1999) classify as moderate communalities for which the sample size needs to be larger than 200. The cut-off point for communalities was set at .40. Below this point communalities can be classified as poor (Fabrigar et al., 1999). An exception was made for three items however. These are autonomy, ethical policies and opportunity to schedule holidays. These items were not deleted because they showed sufficient factor loadings and had communalities close to the cut-off point of .40. Since deleting these variables would potentially lead to a loss of information, they were maintained.

We will now have a look at the different factors that make up the employer obligations. Although the factor analysis gave a different order regarding the factors, we chose to keep the same order as the original instrument (TPCQ) for the rest of this document, so as to improve comparison of the different scales used. (1) Job content. Two of the original items were dropped from the list. “Balanced workload” did not have a factor loading > 0.5 and a very low communality at .149. The item “the opportunity to deliver quality goods/services” had a slightly higher communality at .236 but both factor loading and communality were insufficient and this item was therefore deleted.

(2) Career development. No items were deleted for the factor career development. All items had sufficient factor loadings and communalities $> .40$. The factor has a Cronbach Alpha of .844. (3) Social atmosphere. Two of the items were deleted from the original list. These are “Appreciation and recognition” and “Support from supervisor”. Although they showed sufficient values for communalities, both items had a factor loading $< .50$ and showed almost identical loadings on the factors career development and organizational policies. These items were therefore deleted. The two items that were kept had relative high factor loadings and communalities and the Cronbach Alpha for this scale construction is .861.

(4) Organizational policies. The item “Participation in important decisions” was deleted during the factor analysis. This item had a low communality at .253 and a factor loading of $< .50$. The Cronbach Alpha increased from .858 to .867. (5) Work-life balance. The

item “Consideration of personal circumstances” was deleted. Both communalities and factor loading were not sufficient for this item. (6) Rewards. Three items were deleted during the factor analysis. These were “Employment security”, “Rewards for exceptional performance” and “Performance-based pay”. Employment security was deleted because it had a low communality (.321). Performance-based pay saw a steep decrease in the communality value (below .3) after the deletion of Employment security. After removing Performance-based pay, the communality for Rewards for exceptional performance dropped to .327 and this variable no longer had a factor loading above 0,5. Performance-based pay was therefore the third item to be deleted.

3.7.1.3 Employee obligations

According to Freese & Schalk (2008) we cannot measure the psychological contract without taking into account the employee obligations. This is the reason that the TPQC measures both employer and employee obligations. The original scales of the TPQC have two factors that measure employee obligations. These are in-role and extra-role obligations. As was explained in paragraph 3.4.1, a number of items measuring extra-role obligations were deleted because some of a potential contrast effect (Dijkstra & Smit, 2005) between these items and items measuring the participant’s career intentions. Deleting a substantial part of the extra-role scale could have implications for the factor structure of the employee obligations. An explanatory Factor Analysis with Promax rotation was performed and this showed a two-factor structure with low communalities (8 out of 15 items had communalities < .40 and 6 variables had no loading in the pattern matrix, with 36,72% of total variance explained). Reliability analysis showed that these two factors had low Cronbach Alpha’s with .735 and .721 respectively.

The factor analysis was run again, but this time extraction was done with the use of a fixed 1-factor structure instead of Eigenvalues > 1. The initial one-factor structure had 30,85% of total variance explained. After the first round three items were deleted because they had a factor loading < .50. These were “Performing well on tasks you do not like”, “Dealing with private matters at home” and “Working overtime if that is necessary to get the job done”. An additional item was deleted. “Volunteering to do additional tasks” saw its

factor loading reduced to $< .50$ when the three previous items were deleted. This stabilized the factor loadings, as they were now all above $.50$.

A number of items showed very low communalities and were therefore deleted. These were “Complying with organizational rules and regulations” and “Making suggestions for improvement” with respective communalities of $.286$ and $.279$. Subsequent items to be removed were “Protect the organization’s image” and “Keeping knowledge and skills up to date to be able to deal with changing requirements”. These items had communalities of $.272$ and $.292$. After optimizing the factor structure, a balance between reliability and the percentage of variation explained was found with a 1-factor structure, comprised of 7 variables. The scale employee obligations accounted for 37,58% of variance explained and had a Cronbach Alpha of $.807$. The KMO statistic was $.859$ and Bartlett's Test of Sphericity was significant. Although all factor loadings were well above $.50$ the communalities of certain items remained $< .40$. These items were not deleted because of potential loss of information and because of the fact that the Cronbach Alpha dropped when we deleted more items from this scale.

3.7.1.4 Psychological contract violation

A separate PAF analysis with promax rotation using $EV > 1$ as extraction criteria was conducted for the factor violation. The scree plot also showed a clear 1-factor structure. No items were deleted after the factor analysis. The four items accounted for a total variance explained of 81,36%. This factor showed high factor loadings, with all loadings being $> .875$. All communalities were $> .70$ which, according to Fabrigar et al. (1999) are good conditions. The scale construction had a Cronbach Alpha of $.945$.

3.7.1.5 Career intentions

A PAF analysis using promax rotation was performed, using SPSS 19. Extraction of factors was done with the use of $EV > 1$ and the scree-test. Initially a two-factor structure seemed to exist but after deleting the item “Subscribe to job sites” because of insufficient factor loading and low communality, the second round of the PAF analysis showed a clear one-factor structure. The second item to be deleted was “Enrol in a college/university course

or program”. This item had a low communality at .274 and lower values in the correlation matrix. The original scale of six items was therefore reduced to four after two round of factor analysis. The item “Actively participate in development activities for my current job” has a communality $> .40$ but was not deleted because of the potential loss of information and the sufficient factor loading. The final measure has a KMO value of .767. Bartlett's Test of Sphericity is significant and the total variance explained by this measure is 45,11%. The Cronbach Alpha is .764.

A separate PAF with promax rotation was performed in order to identify the latent factors. Extraction was done using the criteria $EV > 1$ and the scree-test. The original scale that was created by Nicholson & West (1988) identifies three different kinds of mobility change: status, functional and employer changes. Initial factor analysis lead to deleting the item “Another job at the same hierarchical level at your current employer”. This item did not have a factor loading $> .50$. After the first round a three-factor structure appeared, but one item “A promotion within the same job at you current employer” had a low initial communality of .350 and the Cronbach Alpha for this factor was only .670.

A second round of factor analysis was performed, using the fixed number of 2 factors as extraction criteria. The two-factor structure was chosen because of the low reliability of the third factor in the first round. The goal was to identify a structure with higher reliability. After the second round of analysis, the two-factor structure showed a clear distinction between upward and downward mobility. Since the three factors from the first round were not representative for the three kinds of mobility that were identified by Nicholson & West (1988), the mobility types were not used as guidelines for the two-factor structure.

The two factors that were identified during the second round, measured upward and downward mobility options and would therefore be related to the status changes that were described by Nicholson and West. The two-factor structure had a KMO of .658. Bartlett's Test of Sphericity was significant and the total variance explained by this measure was 53,66%. The Cronbach Alpha's for the two factors were .765 and .799. Two additional items were deleted after the second round because they did not have a factor loading $> .50$. These were “To change employers for another job same hierarchical level” and “A promotion within the same job at you current employer”.

3.7.1.6 Stereotype

No items were deleted from the original measure. The factor analysis showed a KMO of .707 and Bartlett's Test of Sphericity is significant. All items had a factor loading of $> .50$ and communalities $> .40$. The three items accounted for 57,37% of total variance explained. The Cronbach Alpha for this scale was .796.

3.7.2 Confirmatory factor analysis

According to Gerbing & Anderson (1988) composite scores, such as the factors that were identified in the previous section, are only meaningful if each of these factors is acceptably unidimensional. A scale can only measure one dimension and it is possible that respondents and researcher have a different interpretation of the meaning of a scale. It is therefore necessary to establish the unidimensionality of the different scales in the study. The authors state that confirmatory factor analysis gives a stricter interpretation of unidimensionality than exploratory factor analysis. Due to the absence of existing research with the scales of the TPQC (Freese et al., 2010) in the context of the current sample, the initial analysis was an exploratory factor analysis.

After the exploratory factor analysis (EFA) in SPSS 17, a separate confirmatory factor analysis (CFA) was performed for the employer obligations, employee obligations, mobility intentions and development activities, using EQS 6.1. Robust methods were selected to correct for non-normality in large samples (Kline, 1998, Byrne, 2006). All the goodness-of-fit statistics used in the following sections are robust statistics. The χ^2 values mentioned in this chapter are all Satorra-Bentler scaled chi-square statistics. The Satorra-Bentler χ^2 adjusts the standard χ^2 value downward by a constant that represents the degree of kurtosis (Kline, 1998).

3.7.2.1 Psychological contract obligations

The six-factor employer obligations structure that was established during the EFA was tested using CFA. After the initial analysis, several variables were left out in the search for a better fitting model. The three items that were removed were 'autonomy' from the latent variable job content, 'coaching on the job' from career development and 'ethical policies

concerning society and environment' from the factor organizational policies. The reasons for deleting these three items were the low R^2 and the high error estimates. Additionally, 'autonomy' had one the highest standard residuals in the standardized residual matrix. The goodness-of-fit statistics show reasonable fit for the six-factor structure (Satorra-Bentler scaled chi-square = 568.7489, $df = 237$, $p < .001$, CFI = 0.944, and RMSEA = 0.037). After deleting the three items, the fit of the six-factor structure was slightly improved (Satorra-Bentler scaled chi-square = 481.9942, $df = 174$, $p < .001$, CFI = 0.940, and RMSEA = 0.040). The standardized factor loadings and R^2 values for the final confirmatory factor analysis are presented in table 3.13.

Apart from the goodness-of-fit statistics, assessing model fit can also be realized by studying the residual covariance matrices (Byrne, 2006). The residual matrix gives us the differences between the hypothesized model and the data. Since model fit would mean that the two models are (almost) identical, we can say that the smaller the value on the residual matrix is, the better the fit will be. When assessing the residual values, there are typically two points that need attention. The first one is the height of the residual scores. According to Byrne (2006) zero would indicate perfect fit and values > 2.58 are considered large.

The second point is the distribution of the residual values. This distribution should ideally be symmetric and centered around zero (Byrne, 2006). The frequency distribution of standardized residuals for the six-factor employer obligations structure shows that 97,84% of the residual values are between -0.1 and 0.1. The standardized residual matrix states that the average off-diagonal absolute standardized residuals is 0.0328, indicating a good fit (Byrne, 2006).

When looking at the individual parameter estimates, we can add that all estimated parameters were statistically significant. All standard errors have values between .041 and .113. According to Byrne (2006) these values are in order. Possible misspecification of parameters was assessed using the LM and the Wald Test. After the assessing the statistical significance of the individual parameters, we performed a Wald Test in order to test for multivariate significance. The Wald Test is used for deleting parameters from a model (Kline, 1998).

The Wald Test indicated that no parameters had to be dropped. In addition to the Wald Test, The Lagrange Multiplier or LM Test was used to test for any parameters that could be added to the model (Kline, 1998). The univariate LM Test results showed several parameters with $p < .001$ but these parameters all showed a Hancock's Criterion probability of 1.000, indicating that they were tenable and did not need to be considered in any respecification of the model (Byrne, 2006). The multivariate LM Test showed one parameter having a chi-square that stood apart from the others. This parameter however also had a Hancock's Criterion probability of 1.000 and was therefore not included in the model. The correlation matrix above gives an overview of the correlations between the six latent variables that were identified regarding the employer obligations. No one value is greater than 0.85, indicating discriminant validity (Kline, 1998).

<i>Standardized solution</i>			<i>R-squared</i>	<i>Standardized solution</i>			<i>R-squared</i>
1 Job content				4 Organizational policies			
Content_1	.843 F1	+ .538 E	.711	Orgapol_2	.720 F4	+ .694 E	.518
Content_2	.779*F1	+ .628 E	.606	Orgapol_3	.704*F4	+ .710 E	.496
Content_4	.781*F1	+ .624 E	.610	Orgapol_4	.687*F4	+ .727 E	.472
				Orgapol_5	.756*F4	+ .654 E	.572
2 Career development				Orgapol_6	.802*F4	+ .597 E	.644
Cardev_1	.669 F2	+ .743 E	.448				
Cardev_2	.711*F2	+ .704 E	.505	5 Work-Life balance			
Cardev_4	.760*F2	+ .650 E	.577	WL_Balance_2	.616 F5	+ .787 E	.380
Cardev_5	.671*F2	+ .742 E	.450	WL_Balance_3	.704*F5	+ .710 E	.496
Cardev_6	.682*F2	+ .731 E	.465	WL_Balance_4	.811*F5	+ .586 E	.657
3 Social atmosphere				6 Rewards			
So_atmos_1	.842 F3	+ .540 E	.709	Rewards_2	.713 F6	+ .701 E	.509
So_atmos_2	.892*F3	+ .452 E	.796	Rewards_4	.689*F6	+ .724 E	.475
				Rewards_5	.798*F6	+ .602 E	.637

Table 3.13 Standardized solution and R-squared values for the 6-factor employer obligations structure

The different factors are clearly measuring distinct aspects of the employer obligations. Convergent validity was also met. As can be seen in table 3.13 all items have relatively high standardized factor loadings of $> .50$, indicating that they are measuring the same latent variable (Kline, 1998). The one-factor employee obligations structure from the previous EFA was analysed with a separate CFA analysis. The item 'Provide good service to customers' was deleted due to its low R^2 . This item also had the largest standardized residual. Deleting the one item from this latent variable improved the fit slightly from (Satorra-Bentler scaled chi-square = 25.9421, $df = 5$, $p < .001$, CFI = 0.979, and RMSEA = 0.062) to (Satorra-Bentler scaled chi-square = 13.2557, $df = 2$, $p = 0.00132$, CFI = 0.984, and RMSEA = 0.071). The frequency distribution of standardized residuals for employee obligations showed that 100% of the residual values were between -0.1 and 0.1 and the standardized residual matrix states that the average off-diagonal absolute standardized residuals was 0.0276, indicating a good fit of the data (Byrne, 2006). All estimated parameters were statistically significant.

3.7.2.2 Career intentions

For both Mobility I and Mobility II we deleted one item. For Mobility I this was the item Mob1 (Another job with more responsibilities at your current employer). During the EFA this item had already shown a low communality but because of possible loss of information the item was not deleted immediately. During the CFA this item had a low R-squared value. This in itself is not surprising, since R-squared is conceptually similar to the communality. The second item that was deleted was the item Mob9 (A demotion within the same job at you current employer) from the factor Mobility II. During the EFA this item had a lower communality of .338. For the reason that deleting the item may lead to a loss of information, it was not deleted during the first round of factor analysis. During the confirmatory factor analysis, both items had a low R-squared and deleting these two items improved the fit indices for the two factors. Except for Mob2 (changing employers for another job with more responsibilities) and Mob8 (Changing employers for another job with fewer responsibilities) all estimated parameters were statistically significant. Mob2 and Mob8 were not deleted at this point because of several reasons.

Deleting the items would mean that the latent variable mobility I would consist of just 1 item, while a minimum of 2 items is required to measure a latent variable (Kline, 1998).

Furthermore the fit indices supported moderate fit, which led to the decision to keep the latent variables mobility I and II at this point and to see how they would load during the measurement invariance tests. This last decision was taken because non-significant error variance parameters do not have to be deleted from the model, like other parameters (Byrne, 2006).

The Chi-square, CFI and RMSEA showed a better fit after deleting the items. The fit indices before deleting the items Mob1 and Mob9 (Satorra-Bentler scaled chi-square = 190.2102, df = 13, p < .001, CFI = 0.884, and RMSEA = 0.113) showed less fit than then the fit indices after deleting both items (Satorra-Bentler scaled chi-square = 23.6202, df = 4, p < .001, CFI = 0.980, and RMSEA = 0.067). The frequency distribution of standardized residuals showed that 100% of the residual values were between -0.1 and 0.1 and the standardized residual matrix stated that the average off-diagonal absolute standardized residuals was 0.0245, indicating a good fit of the data (Byrne, 2006).

<i>Standardized solution</i>			<i>R-squared</i>			<i>Standardized solution</i>			<i>R-squared</i>		
1 Mobility I						2 Mobility II					
Mobility_2	.918 F1	+ .397 E				Mobility_7	.624 F2	+ .781 E			.389
Mobility_4	.731*F1	+ .683 E				Mobility_8	.980*F2	+ .198 E			.961
						Mobility_10	.630*F2	+ .776 E			.397

Table 3.14 Factor loadings and R-squared values for final factors mobility I and II

Fit indices for the latent variable development activities were S-B χ^2 statistic = 10.9681, df = 2, p < .005, CFI = 0.988, and RMSEA = 0.064. These indices indicated moderate fit. All test statistics in the EQS output file were significant. The frequency distribution of standardized residuals showed that 100% of the residual values were between -0.1 and 0.1 and the standardized residual matrix stated that the average off-diagonal absolute standardized residuals is 0.0252 indicating a good fit of the data (Byrne, 2006). The standardized solutions and R² values for this latent variable can be found in table 3.15.

	Standardized solution	R-squared
Devact1	.729 F1 + .685 E36	.531
Devact2	.664*F1 + .747 E37	.441
Devact3	.612*F1 + .791 E38	.375
Devact5	.676*F1 + .737 E39	.457

Table 3.15 Standardized solution and R-squared values for the factor development activities

3.7.2.3 Validity and reliability

Construct validity was assessed through discriminant and convergent validity. Discriminant validity was met. No one value of the latent variables in the correlation matrix was greater than .85, which indicates discriminant validity (Kline, 1998). The different factors are clearly measuring distinct aspects of the employer obligations. Convergent validity was also met. All items have relatively high standardized factor loadings of $> .50$, indicating that they are measuring the same latent variable (Kline, 1998). The reliability of the scales was assessed using Cronbach Alpha, which is an internal consistency measure. Reliability was met as all Cronbach Alpha values were above 0.7 (Nunnally, 1978).

3.8 Analysis II – Polynomial regression

The selected method of calculating fulfilment and breach is called the expanded view (Lambert et al., 2003, Montes & Irving, 2008, Lambert, 2011). As was explained in the first chapter, this approach distinguishes itself from other methods by considering the joint effects of promised and delivered inducements as predictors on an outcome variable. This is done through preserving the absolute levels of promised and delivered inducements. One of the ideas behind the expanded view is that employee reactions might be different, depending on the inducements that are being studied (Lambert et al., 2003). In order to operationalize the expanded view in this study, a number of polynomial regressions were run on different data sets. In congruence research polynomial regression allows examination to which extent a combination of two predictor variables relates to a third outcome variable (Shanock, 2010). Polynomial regression has been applied to measure the evaluation of the psychological contract (e.g. Lambert et al., 2003, Dabos & Rousseau, 2004). In order to be able to use polynomial regression, both predictor variables have to represent the same conceptual domain

and they both have to be measured on the same numerical scale (Edwards, 2002, Shanock, 2010).

In order to be able to run the polynomial regression analysis, the participants with missing data for either obligations or delivered inducements were removed from the dataset. Both scores are necessary for running the analysis in Matlab. This resulted in the deletion of 6 to 29 observations for the analysis of the individual dimensions of the psychological contract. The scales for both promised and delivered inducements were centered; using grand mean centering (Lambert et al., 2003, Field, 2009).

3.8.1 Outliers and influential data

Outliers and influential observations were tested with the help of measures Studentized residuals, Leverage and Cook's distance. This is according to relevant literature (e.g. Lambert et al., 2003, Montes & Zweig, 2009). Outliers are unusual data points that may lead to serious distortions of results (Pedhazur & Pedhazur, 1991) and were identified using Studentized residuals (Lambert et al., 2003). The studentized residual is calculated by dividing the unstandardized residual by its standard deviation. If the models' assumptions are reasonably met the studentized residuals have a t-distribution with $N-k-1$ df (Pedhazur & Pedhazur, 1991). Outliers alone are not enough to establish if the specific observations have a certain influence over the model parameters (Pedhazur & Pedhazur, 1991, Field, 2009). Bobko (2001) states that a data point has high influence only if it has a large residual and high leverage.

Influential observations were identified using both Leverage and Cook's distance criteria (Lambert et al., 2003, Irving & Montes, 2009). Cook's distance or Cook's D is an index for the detection of influential observations (Pedhazur & Pedhazur, 1991). Cook's D values greater than 1 may be cause for concern (Field, 2009). According to Field (2009) leverage 'gauges the influence of the observed value of the outcome variable over the predicted value.' Depending on the author, a score of twice (e.g. Fox, 1991, Pedhazur & Pedhazur, 1991, Field, 2009) or three (e.g. Montes & Zweig, 2009) the average leverage value can be used as a cut-off point for the leverage criteria.

3.8.2 Total sample

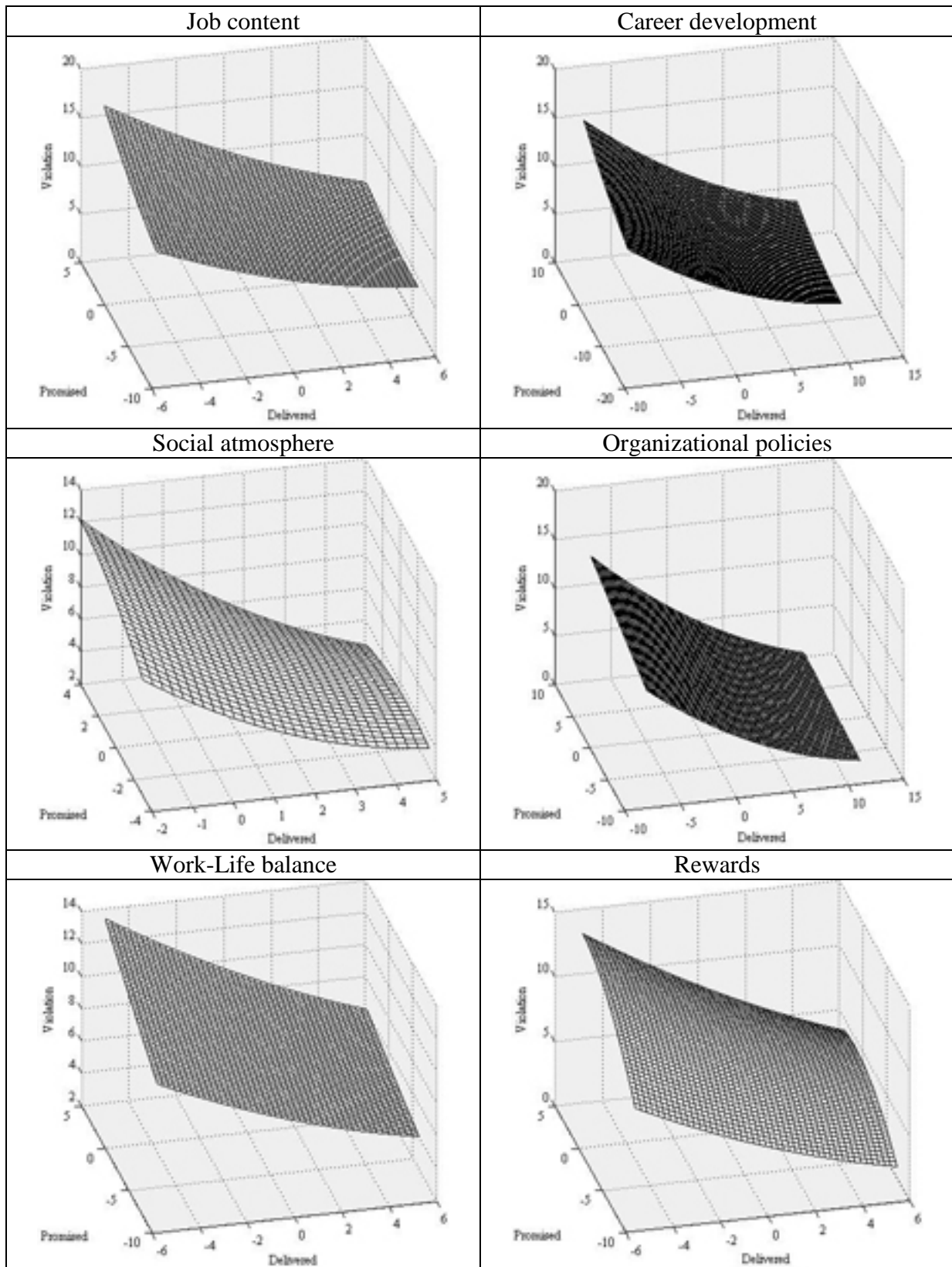


Table 3.16 Results polynomial regression analysis for total sample employer dimensions on violation

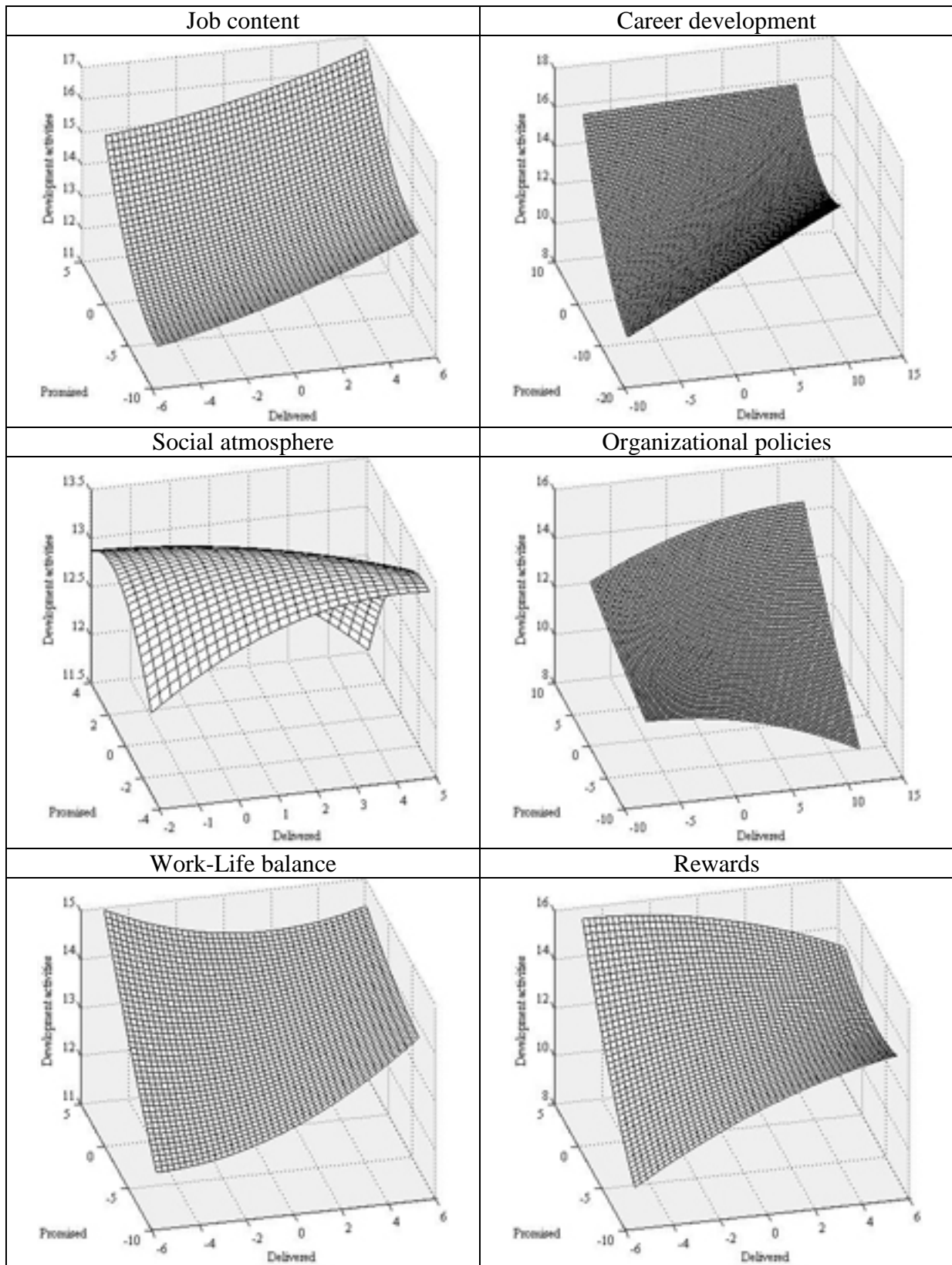


Table 3.17 Results polynomial regression analysis for total sample employer dimensions on development activities

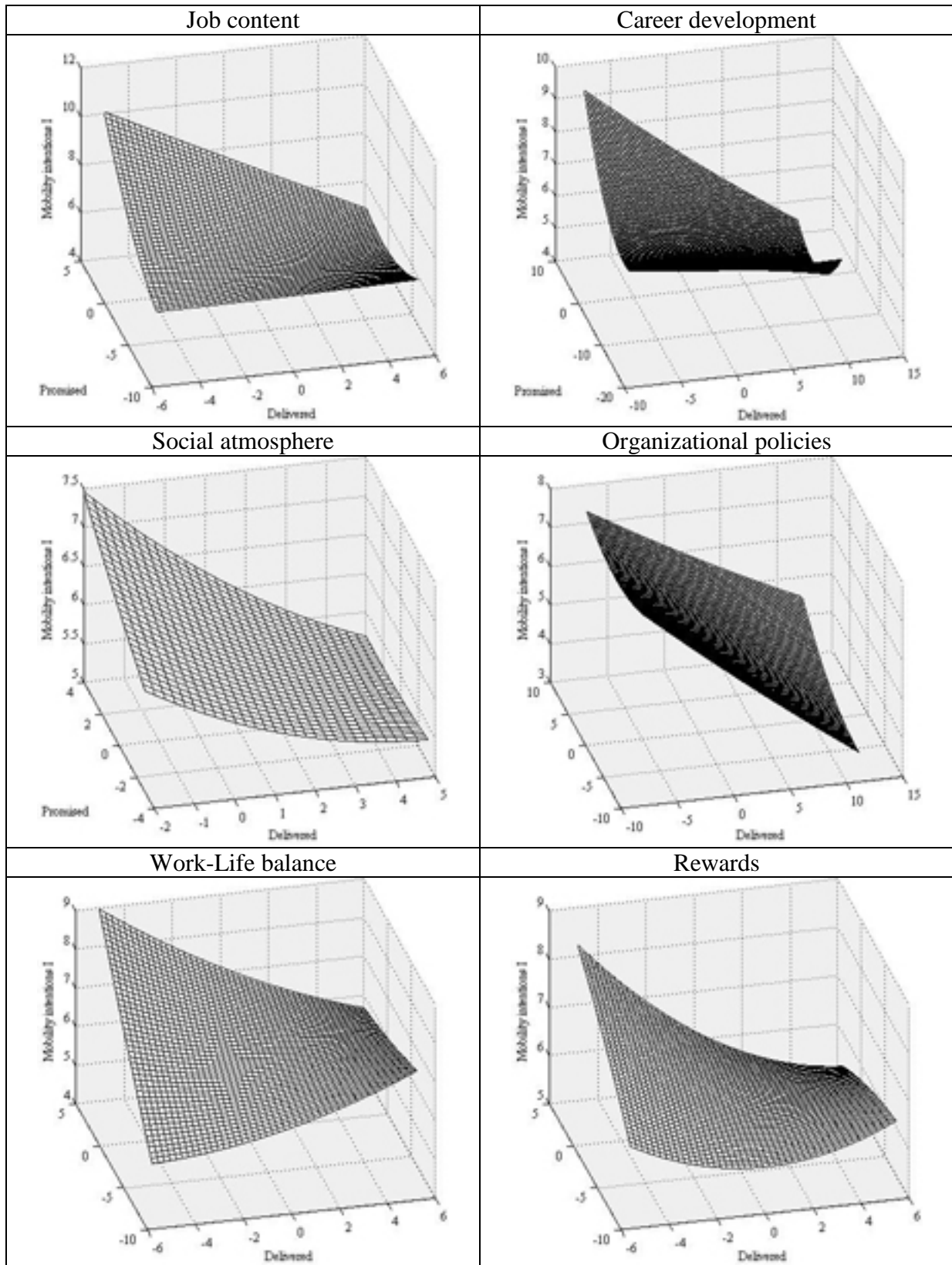


Table 3.18 Results polynomial regression analysis for total sample employer dimensions on Mobility I

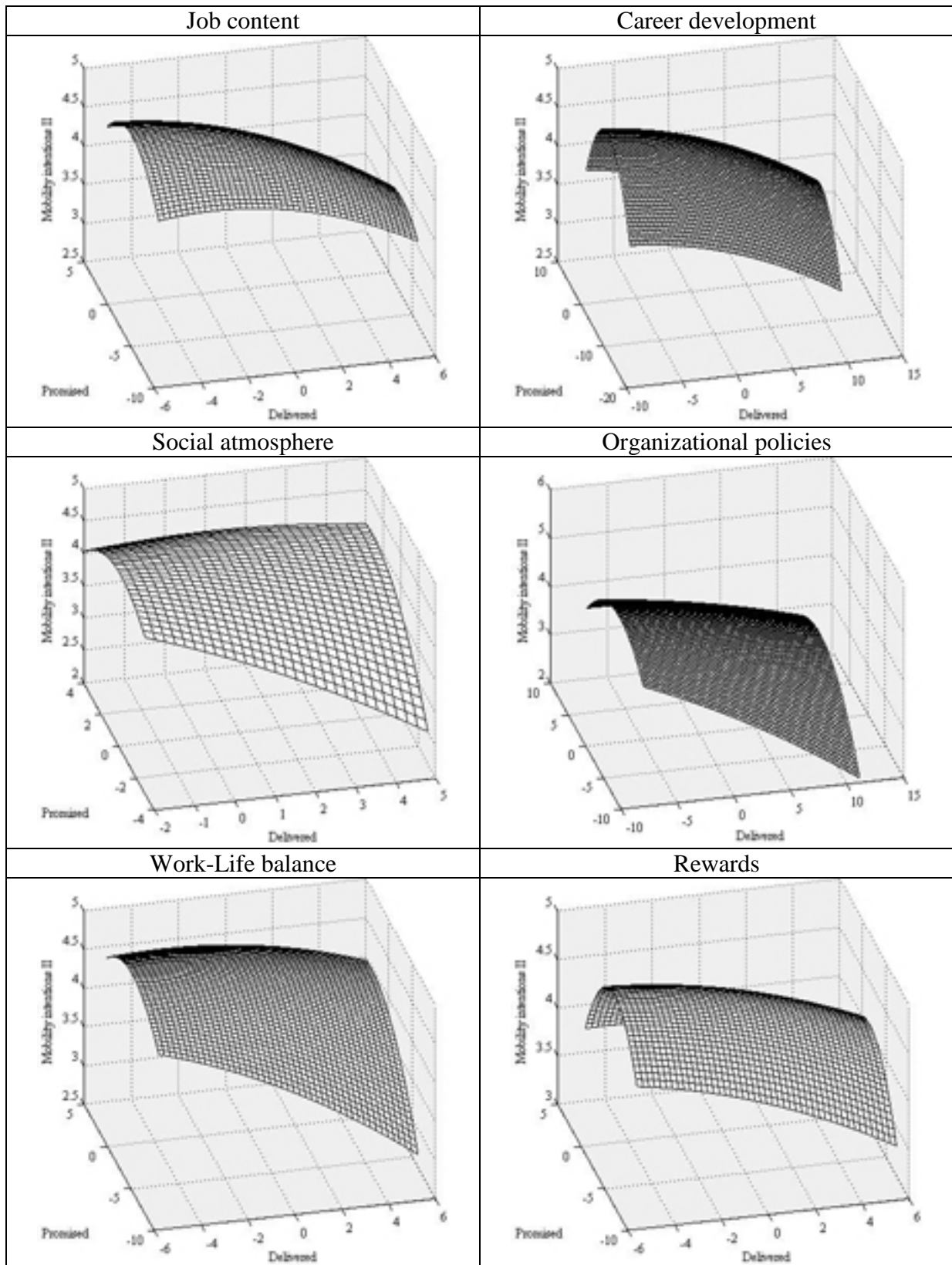


Table 3.19 Results polynomial regression analysis for total sample employer dimensions on Mobility II

Violation						
	R	R2	F	P	Error variance	Outliers removed
Content	0.241	0.237	68.923	0.000	13.588	7
Cardev	0.345	0.342	112.552	0.000	11.912	3
So_atmos	0.378	0.375	131.579	0.000	11.161	9
Orgapol	0.439	0.437	169.107	0.000	10.135	7
WL_Balance	0.149	0.145	37.782	0.000	15.150	4
Rewards	0.228	0.224	63.774	0.000	13.748	6
Development activities						
	R	R2	F	P	Error variance	Outliers removed
Content	0.042	0.038	9.545	0.000	11.883	1
Cardev	0.090	0.086	20.956	0.000	11.151	5
So_atmos	0.005	0.000	0.979	0.4297	12.459	0
Orgapol	0.033	0.028	7.304	0.000	12.081	1
WL_Balance	0.024	0.020	5.376	0.000	12.109	0
Rewards	0.054	0.049	12.266	0.000	11.644	1
Mobility I						
	R	R2	F	P	Error variance	Outliers removed
Content	0.089	0.085	21.379	0.000	4.339	0
Cardev	0.138	0.134	34.011	0.000	4.110	1
So_atmos	0.064	0.060	14.880	0.000	4.472	0
Orgapol	0.114	0.110	27.873	0.000	4.229	0
WL_Balance	0.062	0.058	14.246	0.000	4.450	1
Rewards	0.073	0.068	16.926	0.000	4.400	1
Mobility II						
	R	R2	F	P	Error variance	Outliers removed
Content	0.019	0.014	4.094	0.001	2.608	19
Cardev	0.024	0.019	5.108	0.000	2.713	14
So_atmos	0.020	0.016	4.356	0.001	2.789	13
Orgapol	0.027	0.023	5.929	0.000	2.716	15
WL_Balance	0.016	0.011	3.335	0.005	2.688	16
Rewards	0.015	0.010	3.167	0.008	2.727	15

Table 3.20 Statistics for tested models for total sample

3.8.3 High and low identification groups

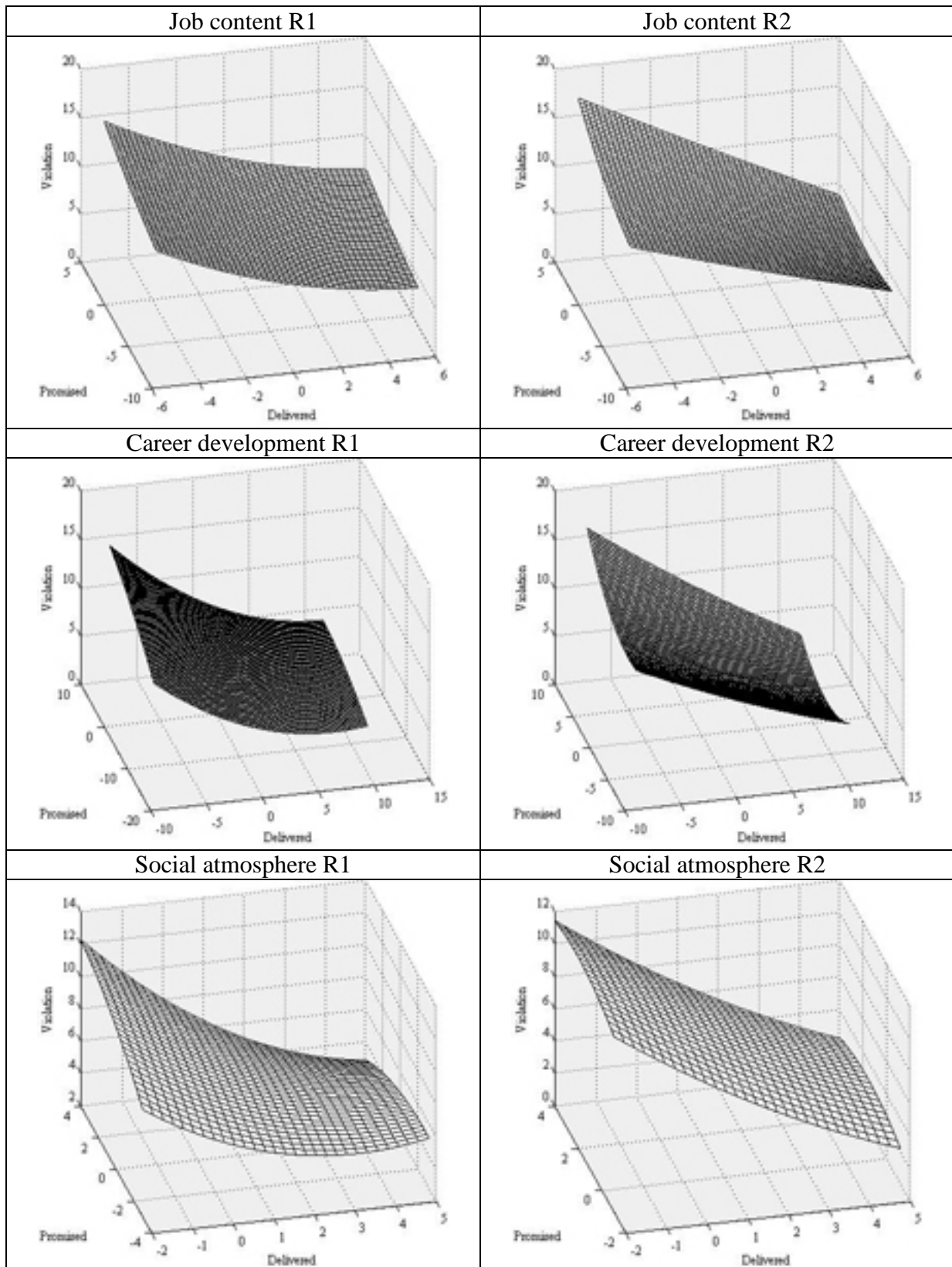


Table 3.21 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 1 through 3 on violation

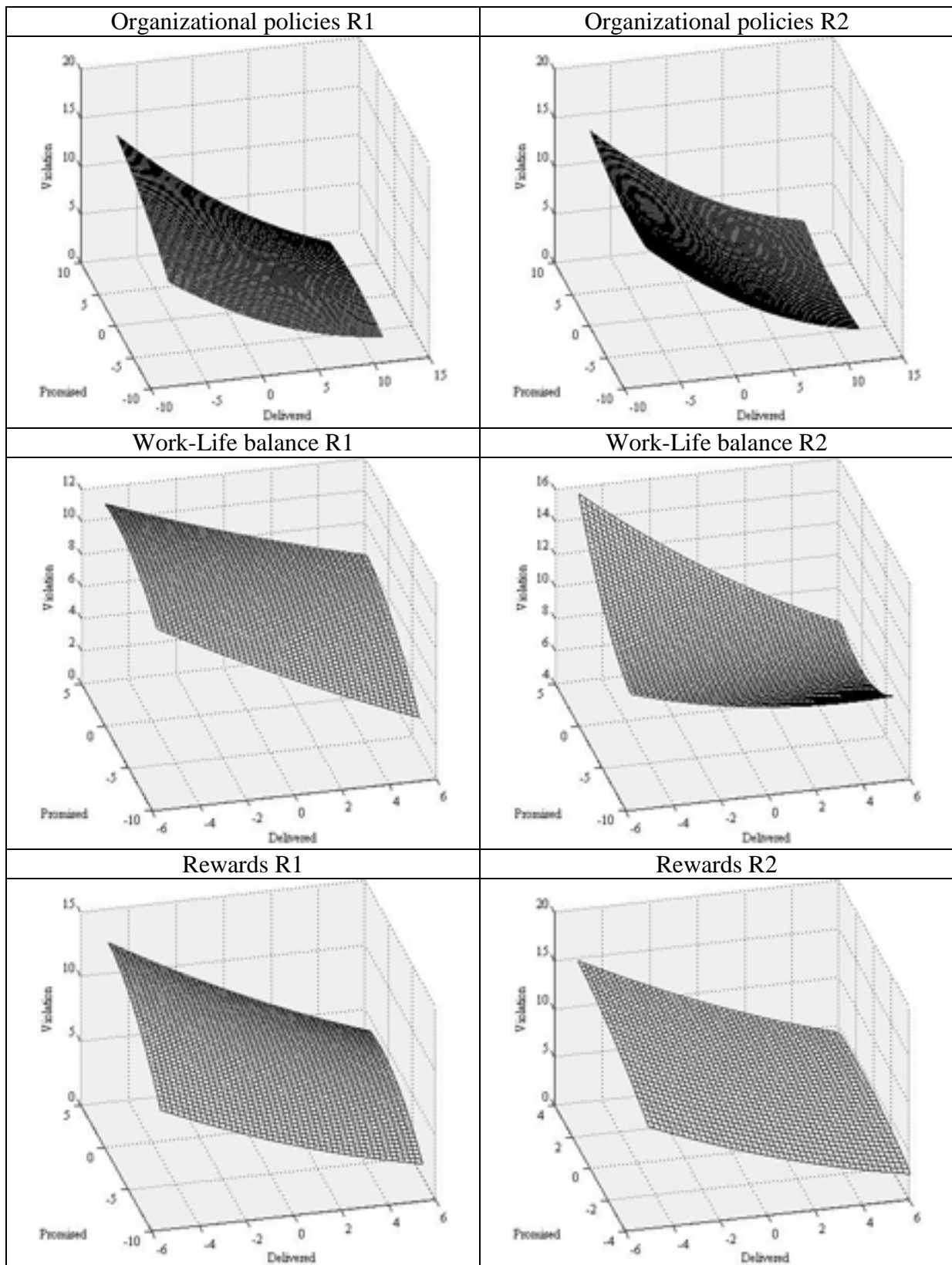


Table 3.22 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 4 through 6 on violation

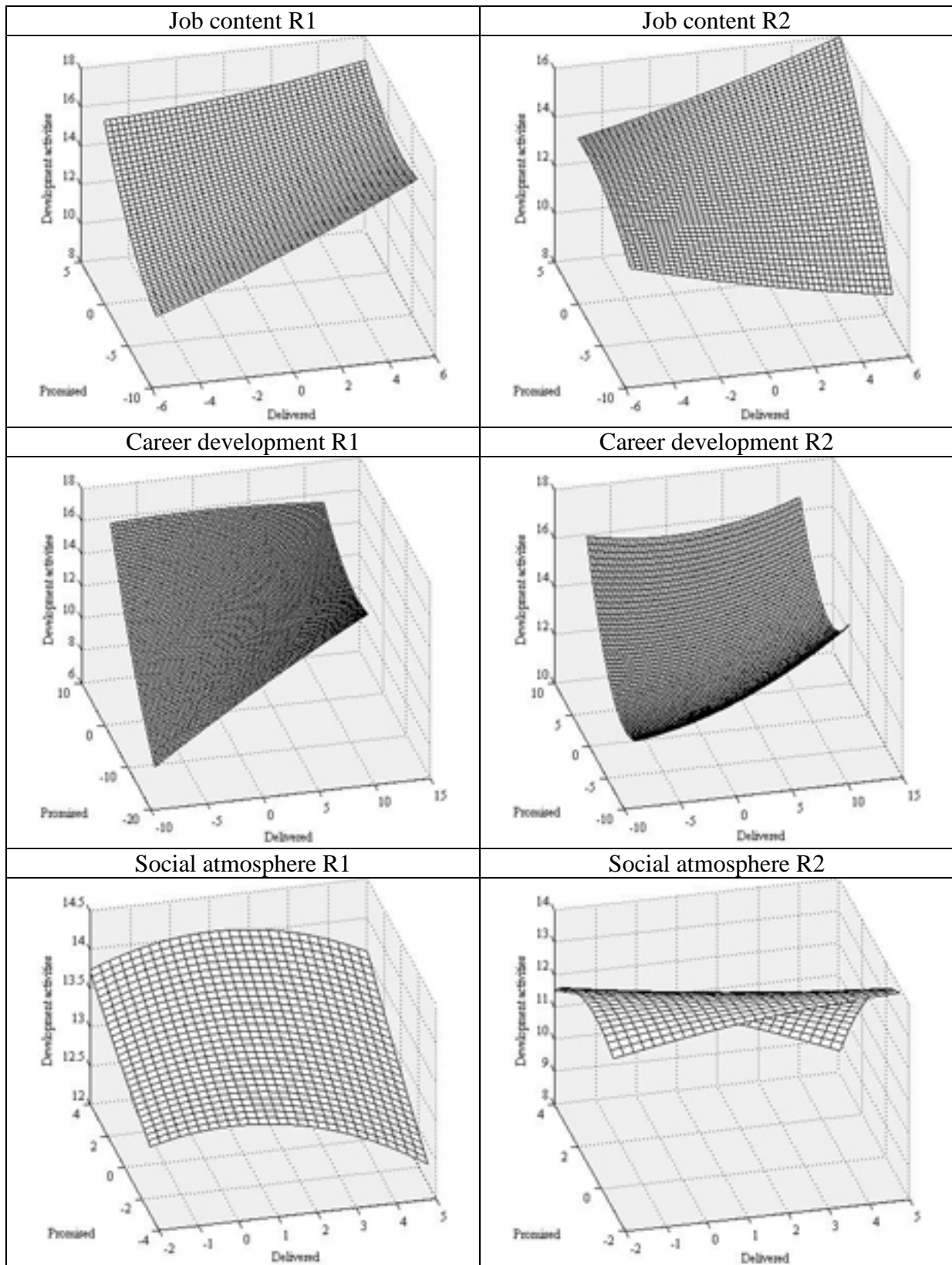


Table 3.23 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 1 through 3 on development activities

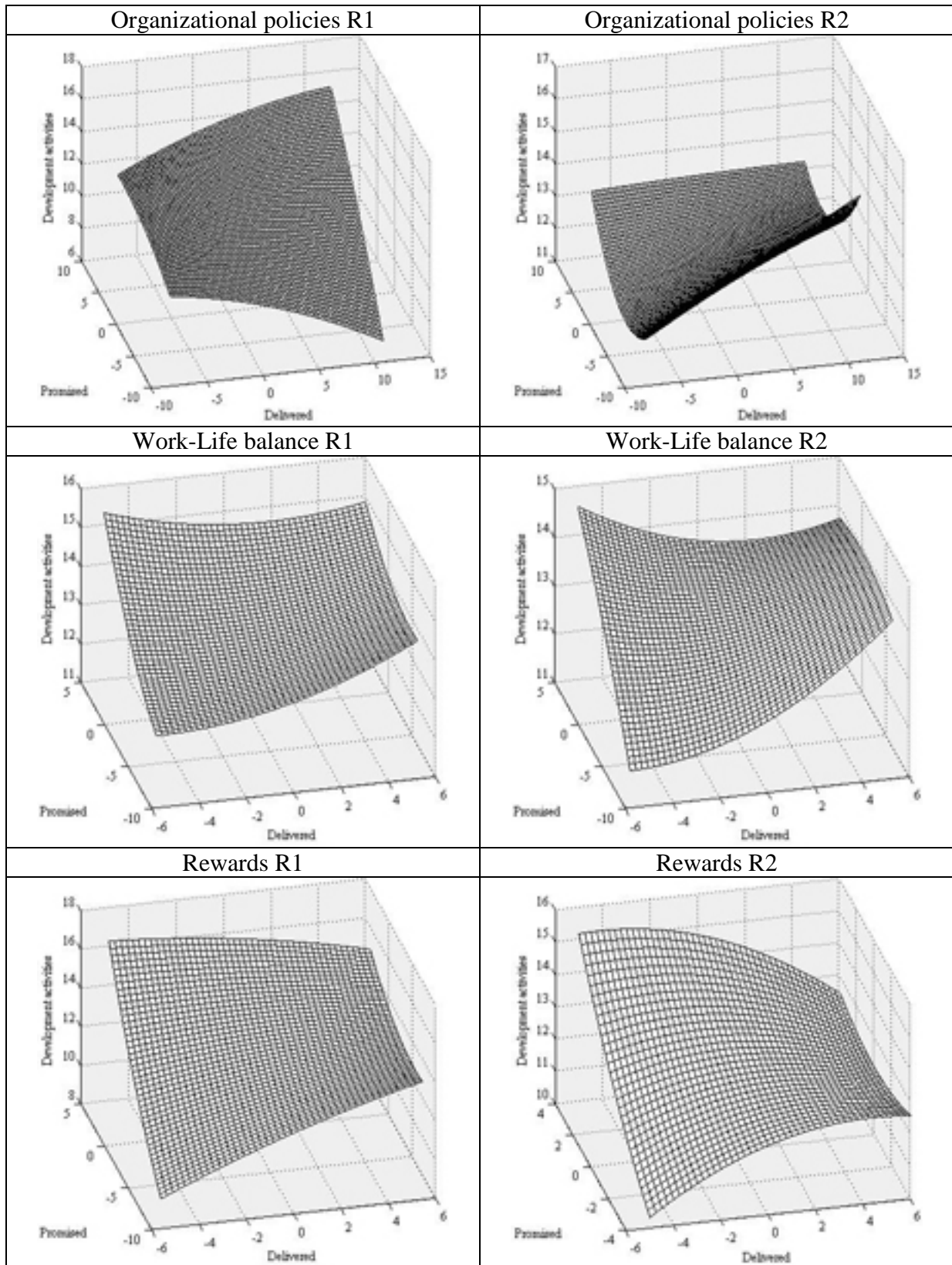


Table 3.24 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 4 through 6 on development activities

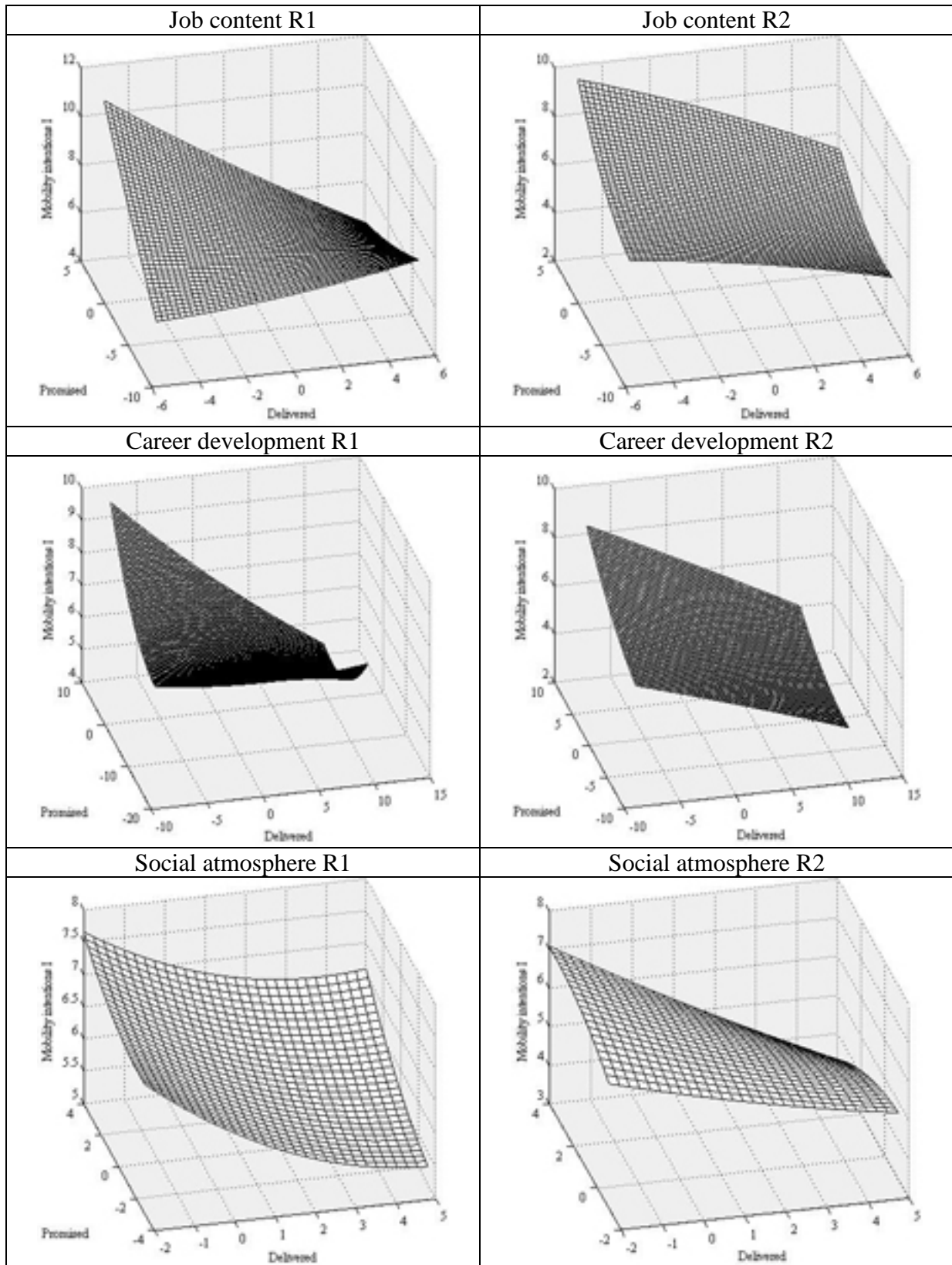


Table 3.25 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 1 through 3 on mobility I

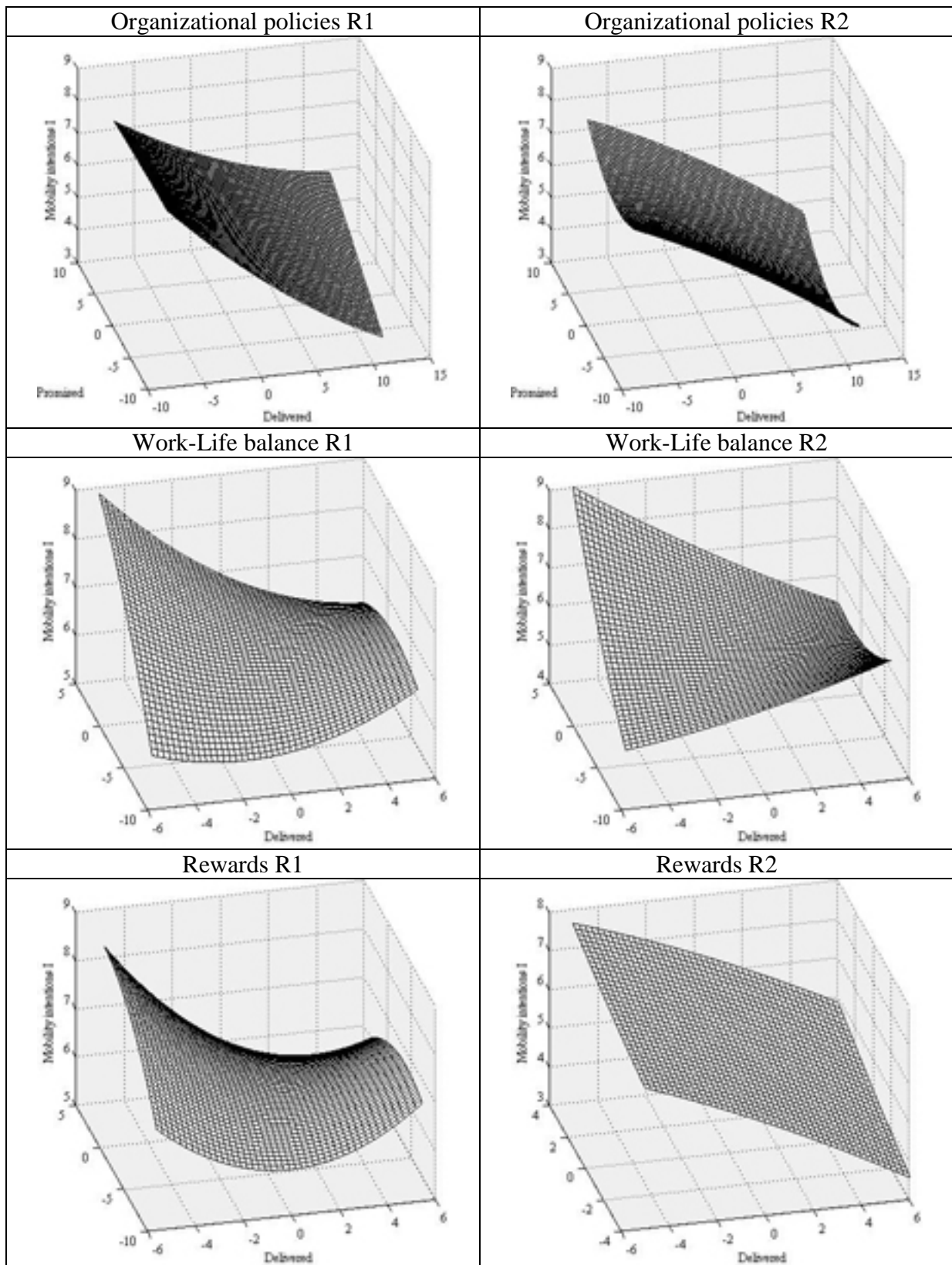


Table 3.26 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 4 through 6 on mobility I

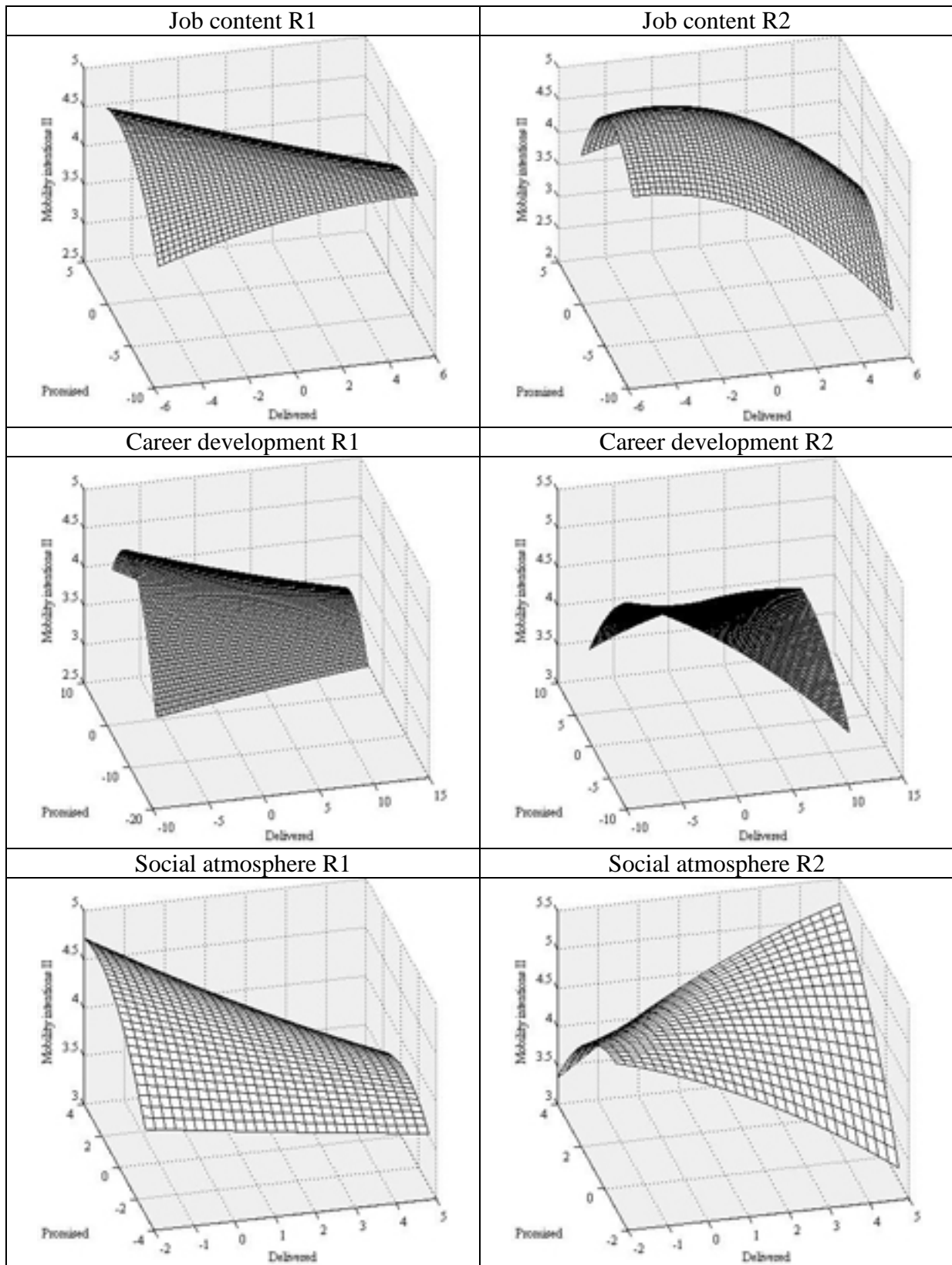


Table 3.27 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 1 through 3 on mobility II

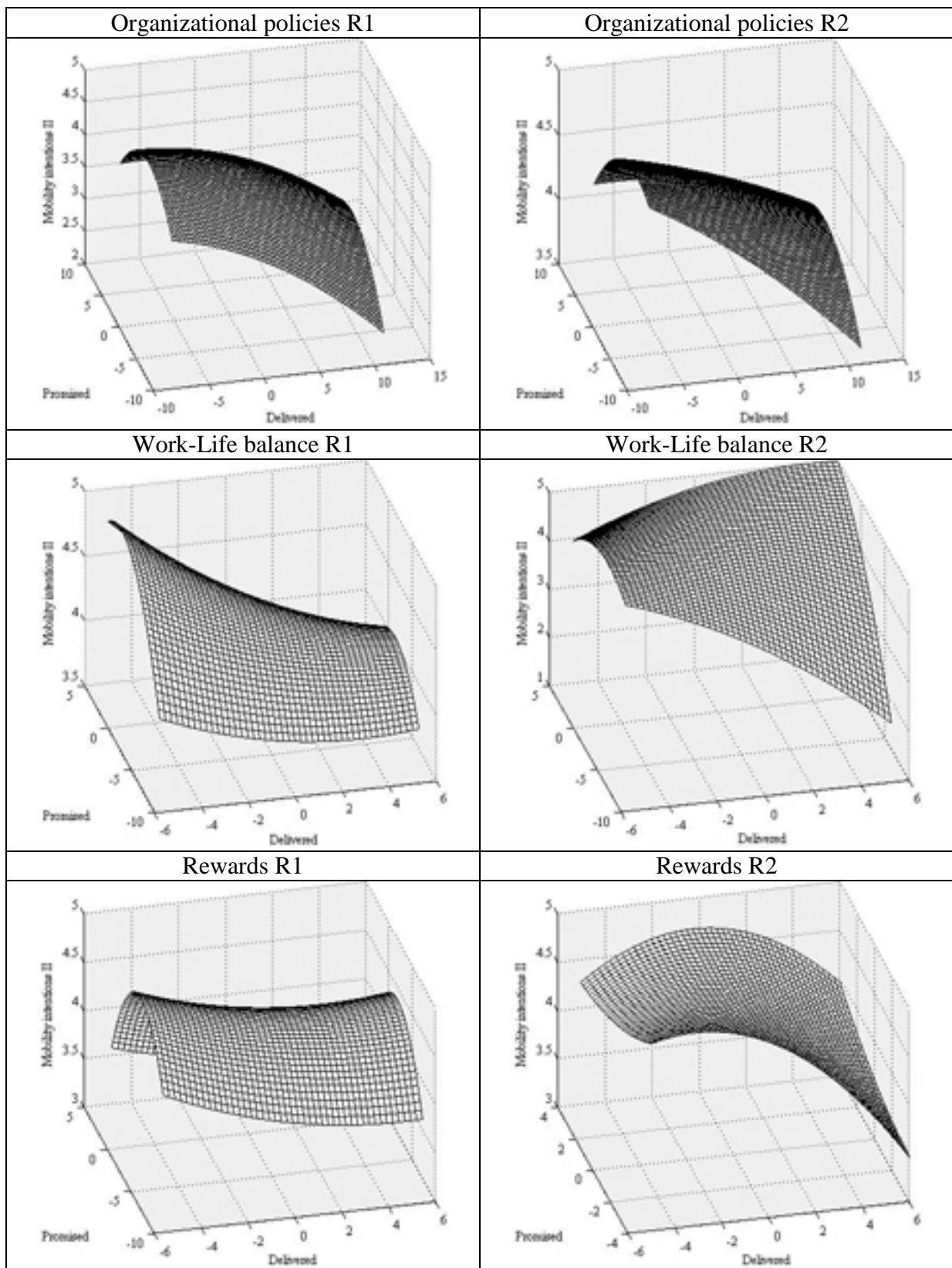


Table 3.28 Results polynomial regression analysis for low (R1) and high identification (R2) group employer dimensions 4 through 6 on mobility II

Violation						
	R	R2	F	P	Error variance	Outliers removed
Content	0.192	0.185	27.164	0.000	13.637	6
Cardev	0.334	0.328	56.334	0.000	11.732	3
So_atmos	0.342	0.336	59.037	0.000	11.336	6
Orgapol	0.422	0.417	82.654	0.000	10.110	5
WL_Balance	0.109	0.101	13.829	0.000	15.696	2
Rewards	0.211	0.204	30.258	0.000	13.568	4
Development activities						
	R	R2	F	P	Error variance	Outliers removed
Content	0.071	0.063	8.794	0.000	11.843	2
Cardev	0.138	0.130	17.811	0.000	10.989	3
So_atmos	0.004	-0.005	0.418	0.836	12.958	0
Orgapol	0.073	0.065	8.940	0.000	12.012	1
WL_Balance	0.023	0.014	2.607	0.024	12.621	0
Rewards	0.094	0.086	11.763	0.000	11.485	2
Mobility I						
	R	R2	F	P	Error variance	Outliers removed
Content	0.096	0.088	12.180	0.000	4.351	0
Cardev	0.133	0.126	17.306	0.000	4.190	0
So_atmos	0.066	0.058	8.049	0.000	4.495	0
Orgapol	0.121	0.113	15.676	0.000	4.247	0
WL_Balance	0.051	0.043	6.114	0.000	4.518	1
Rewards	0.076	0.068	9.311	0.000	4.421	0
Mobility II						
	R	R2	F	P	Error variance	Outliers removed
Content	0.011	0.002	1.205	0.305	2.479	8
Cardev	0.028	0.019	3.098	0.009	2.424	7
So_atmos	0.031	0.022	3.560	0.004	2.537	6
Orgapol	0.030	0.021	3.440	0.005	2.428	8
WL_Balance	0.021	0.012	2.383	0.037	2.453	8
Rewards	0.018	0.010	2.075	0.067	2.454	8

Table 3.29 Statistics for tested models for low identification (R1) group

Violation						
	R	R2	F	P	Error variance	Outliers removed
Content	0.284	0.277	40.239	0.000	13.136	2
Cardev	0.376	0.369	58.975	0.000	11.593	1
So_atmos	0.416	0.410	70.652	0.000	10.789	3
Orgapol	0.471	0.465	87.682	0.000	9.822	3
WL_Balance	0.191	0.183	23.169	0.000	14.390	3
Rewards	0.243	0.235	31.778	0.000	13.911	2
Development activities						
	R	R2	F	P	Error variance	Outliers removed
Content	0.029	0.019	2.982	0.012	11.580	0
Cardev	0.061	0.051	6.337	0.000	10.952	3
So_atmos	0.015	0.005	1.500	0.188	11.939	0
Orgapol	0.012	0.002	1.245	0.287	11.965	0
WL_Balance	0.025	0.015	2.557	0.027	11.704	0
Rewards	0.024	0.015	2.477	0.031	11.610	0
Mobility I						
	R	R2	F	P	Error variance	Outliers removed
Content	0.104	0.095	11.715	0.000	4.139	0
Cardev	0.164	0.155	19.167	0.000	3.878	0
So_atmos	0.097	0.088	10.742	0.000	4.169	0
Orgapol	0.133	0.124	15.185	0.000	3.983	0
WL_Balance	0.084	0.075	9.059	0.000	4.214	0
Rewards	0.077	0.067	8.216	0.000	4.251	0
Mobility II						
	R	R2	F	P	Error variance	Outliers removed
Content	0.029	0.020	2.992	0.011	2.960	7
Cardev	0.015	0.005	1.442	0.208	3.059	7
So_atmos	0.023	0.013	2.258	0.048	3.045	7
Orgapol	0.007	-0.003	0.683	0.637	3.104	7
WL_Balance	0.018	0.007	1.724	0.128	2.999	7
Rewards	0.010	0.000	0.957	0.444	3.045	7

Table 3.30 Statistics for tested models for high identification (R2) group

3.8.4 Results and three-dimensional surfaces

The findings and discussion of the polynomial regression analysis and the three-dimensional surfaces is presented in chapter 4. In this paragraph we will discuss the model statistics and the main differences in results for the models that were tested. Four different models were tested for the 6 employer obligations. The models show the influence of both obligations and delivered inducements on the dependent variables violation, development activities, mobility I, and II. In order to see if the surfaces for these models would be the same for both low and high identification groups, we divided the sample in two subgroups low and high identification (Rident1 and 2), and ran the same analysis separately for both groups.

The first dependent variable to be tested was violation. All models reported significant statistics and the explained variance varied from 0.146 for work-life balance to 0.437 for organizational policies. Although the surfaces for the different models show slight variations for the full dataset, all six dimensions report the same effects. High obligations combined with low delivered inducements show the highest levels of violations, followed by low obligations and low deliveries. The lowest data points are the two points where participants reported high delivered inducements. This means that the reported level of psychological contract violation depends on the perceived level of delivered inducements on all dimensions of the psychological contract. Regardless of the level of perceived obligations, violation levels go down with the increase of delivered inducements.

	Full dataset		Identification R1		Identification R2	
	<i>R2</i>	<i>P</i>	<i>R2</i>	<i>P</i>	<i>R2</i>	<i>P</i>
Content	0.237	0.000	0.192	0.000	0.284	0.000
Cardev	0.342	0.000	0.334	0.000	0.376	0.000
So_atmos	0.375	0.000	0.342	0.000	0.416	0.000
Orgapol	0.437	0.000	0.422	0.000	0.471	0.000
WL_Balance	0.145	0.000	0.109	0.000	0.191	0.000
Rewards	0.224	0.000	0.211	0.000	0.243	0.000

Table 3.31 Comparison of the statistics for the model with violation as dependent variable

After testing the models for the entire sample, the same models were run again for the high and low identification groups. As for the full data set, the lowest and highest adjusted R-values were reported for the dimensions work-life balance and organizational policies, and statistics were significant at $P < .001$. Apart from two exceptions both models show more or less the same surface as for the total sample. For the dimension social atmosphere there is a difference between the R1 and R2 group for low obligation/high delivery. The full set and the R2 group show surfaces that resemble each other, but the surface for the R1 group indicates higher perceived violation in the case of high deliveries and low obligations. This seems to be indicating that excess inducements for low obligations on social atmosphere seem to result in a higher perceived violation for participants in the R1 group, than when high obligations are met. The second exception is the dimension work-life balance that shows a different surface for the R1 and R2 group. The R1 group has a surface with a less steeper descend slope than the R2 group and the lower data points on the violation scale are inverted. Participants in the R1 group report higher levels of perceived violation for high delivered inducements/ high obligations, whereas participants in the R2 group report higher levels of violation for situations in which they received high inducements while perceiving low obligations from the employer.

The second round of analysis was run for the dependent variable development activities. Except the model for social atmosphere that did not have significant statistics, all others were significant at $P < .001$ with explained variance varying from 0.020 for work-life balance to 0.086 for career development. The surfaces for job content and career development have a similar shape with both surfaces following the fulfillment line. The highest level of intentions to participate in development activities were reported for the fulfillment of high obligations (high-high) and the lowest intentions for the fulfillment of low obligations (low-low). The surface for career development is a little bit tilted and it appears that participants report a level of development intentions very close to high-high, even when perceived delivered inducements are low. This might indicate that the level of perceived obligations is more important for the dimension career development than for the other dimensions. The models measuring work-life balance and rewards show the highest level of development intentions being reported by participants who perceive high obligations and low delivered inducements (high-low).

	Full dataset		Identification R1		Identification R2	
	<i>R2</i>	<i>P</i>	<i>R2</i>	<i>P</i>	<i>R2</i>	<i>P</i>
Content	0.038	0.000	0.063	0.000	0.019	0.012
Cardev	0.086	0.000	0.130	0.000	0.051	0.000
So_atmos	0.000	0.430	-0.005	0.836	0.005	0.188
Orgapol	0.028	0.000	0.065	0.000	0.002	0.287
WL_Balance	0.020	0.000	0.014	0.024	0.015	0.027
Rewards	0.049	0.000	0.086	0.000	0.015	0.031

Table 3.32 Comparison of the statistics for the model with development activities as dependent variable

The models for social atmosphere (R1 and R2) and organizational policies (R2) did not report significant statistics with explained variance being low for the other dimensions. Compared to the full data set, several statistics were significant at $P < .05$ instead of $P < .001$. When looking at the different surfaces for the models, there seem to be more differences for development activities than for violation. Focusing on the 4 models with significant statistics for both R1 and R2 we can see that the models for career development, work-life balance, and rewards show more or less the same surfaces and still have the same data points when ranking them from low intentions to low intentions. The surface for job content is different along the axes indicating delivered inducements for the high and low identification groups.

Participants that have a low identification with the social group of older workers indicate a higher intention to participate in development activities when obligations are low and delivered inducements are high. For participants with a high identification, the surface is inverted, with the low-low option indicating higher levels of career development intentions than the low-high possibility. Participants belonging to group R2 who perceive that they received little on dimensions where they reported low obligations are more motivated to participate in future development activities than participants who are in group R1.

The third dependent variable to be tested was Mobility I. The models for the six employer dimensions were tested, using the full data set, low and high identification groups. The statistics were significant at $P < .001$ for all the models tested within the three samples.

The first sample to be tested was the full data set. Participants perceiving high obligations and low delivered inducements reported the highest intention to accept an upward status change. This indicates that breach indicates higher levels of having intentions of accepting a job with more responsibilities, either at the current employer or elsewhere.

High obligations combined with high fulfilment shows the lowest level of intentions for the dimensions job content, career development, social atmosphere, and rewards. For organizational policies the surface is inverted with low obligations and high deliveries showing the lowest level of mobility intentions, and low obligations with low delivered inducements having a higher score than the other dimensions. The result is a steeper slope from low to high deliveries than all the other models. The models for the low and high identification groups also indicate a higher intention for upward mobility for participants that have reported higher levels of psychological contract breach. When comparing the samples R1 and R2 we can see that the dimensions job content and career development, and social atmosphere show an inversed surface on the high-end of the delivered inducements. Work-life balance and rewards show less variation in the surface for R2 than for R1.

	Full dataset		Identification R1		Identification R2	
	<i>R</i> ²	<i>P</i>	<i>R</i> ²	<i>P</i>	<i>R</i> ²	<i>P</i>
Content	0.085	0.000	0.088	0.000	0.095	0.000
Cardev	0.134	0.000	0.126	0.000	0.155	0.000
So_atmos	0.060	0.000	0.058	0.000	0.088	0.000
Orgapol	0.110	0.000	0.113	0.000	0.124	0.000
WL_Balance	0.058	0.000	0.043	0.000	0.075	0.000
Rewards	0.068	0.000	0.068	0.000	0.067	0.000

Table 3.33 Comparison of the statistics for the model with Mobility I as dependent variable

Social atmosphere indicates high intention to accept upward mobility for participants that reported high obligations and high deliveries for the low identification group, while the participants in the R2 group reported the lowest level of intentions for the high-high option. This seems to indicate that people who identify themselves more with the social group of

older workers are less likely to have the intention of accepting upward mobility when obligations and deliveries are both high. The last round of analyses was aimed at testing the different models with Mobility II as dependent variable. As with the other dependent variables, all models were run for all three samples. The models for the full data set all had significant statistics at $P < .001$ whereas for R1 job content and rewards did not have significant statistics. The models tested for the high identification group only showed two dimensions having significant statistics at $P < .05$. These were job content and social atmosphere.

The models tested for the full data set produced surfaces that all showed that low obligations and high delivered inducements made for the possible outcome with the lowest reported level of mobility intentions. Most surfaces have a curve indicating that the highest levels of intentions for downward mobility are between moderate and high obligations and lower deliveries. Only social atmosphere seems to have a more steady line, going from low to high deliveries.

	Full dataset		Identification R1		Identification R2	
	<i>R</i> ²	<i>P</i>	<i>R</i> ²	<i>P</i>	<i>R</i> ²	<i>P</i>
Content	0.014	0.001	0.002	0.305	0.0200	0.011
Cardev	0.019	0.000	0.019	0.009	0.005	0.208
So_atmos	0.016	0.001	0.022	0.004	0.013	0.048
Orgapol	0.022	0.000	0.021	0.005	-0.003	0.637
WL_Balance	0.011	0.005	0.012	0.037	0.007	0.128
Rewards	0.010	0.008	0.010	0.067	0.000	0.444

Table 3.34 Comparison of the statistics for the model with Mobility II as dependent variable

For the group of participants that have a low identification with the social group of older workers, two out of the four significant models (career development and organizational policies) show a surface close to that of the full data set. Social atmosphere and work-life balance show a clear distinction between psychological contract breach (high obligations and low delivered inducements) and the other three data points. These two surfaces are inverted

for the participants that have a high identification with the older workers' social group. For the R2 group, only social atmosphere has significant statistics. It suggests that, for the dimensions social atmosphere and work-life balance, people who identify themselves as an older worker have higher levels of intentions to accept a downward move when obligations and delivered inducements are both high. The surfaces of these models appear to be following the fulfilment line. For participants who do not identify themselves as an older workers breach seems to be more important in predicting intentions to accept downward mobility. The surfaces of these models seem to be following the breach line.

3.9 Analysis III – Structural equation modelling

3.9.1 Full measurement model obligations

After all the separate latent variables were assessed through confirmatory factor analysis, we tested the full 10-factor measurement model for the obligations in EQS 6.1. No structural paths were indicated for this analysis. The fit indices for the full measurement model indicated model fit with the S-B χ^2 statistic = 1045.0980, df = 482, $p < .005$, CFI = 0.939, and RMSEA = 0.034. After establishing model fit for the measurement model, we proceeded to test for measurement invariance.

Before proceeding to the structural model, a number of multi-group analyses were performed on the measurement model to see if the measured constructs are invariant across the different subgroups in the sample (Byrne, 2006, Williams et al., 2009). Vandenberg and Lance (2000) summed up a list of 8 different measurement equivalence/invariance tests in a meta-analysis on articles published within the organizational sciences. According to the authors, the configural and metric invariance tests were the tests that were most frequently reported in the articles that they reviewed. Williams et al. (2009) stated that configural and metric invariance tests are most critical and that if these and other measures are not invariant across groups, this can have negative implications on the validity of the assessment of the structural model and structural paths.

Configural invariance was tested by running a multi-group analysis, and specifying the same pattern of fixed and free factor loadings for each group (Vandenberg & Lance, 2000).

Establishing configural invariance is important because this test assesses if the participants from the different groups use the same reference framework while responding to the different items that make up the latent variables (Williams et al., 2009). If the configural invariance is not supported, the participants in each group will have different frameworks for matching indicators and latent variables. This means that no hypotheses of differences for structural paths across groups can be tested, as the different participants have different constructs (Williams et al., 2009). There were no parameter constraints used for this test (Byrne, 2006). The result of testing for configural invariance is just one set of fit indices for overall model fit (Byrne, 2006, Williams et al., 2009). When these indices indicate a well-fitting model, it indicates that participants from both groups used the same constructs when filling out the questionnaire (Williams et al., 2009).

Metric invariance was assessed through testing if factor loadings for similar items are invariant across groups (Vandenberg & Lance, 2000). Testing for the equivalence of factor loadings across groups means that all freely estimated factor loadings in the model have to be specified alike and need to be constrained in the multi-group analysis (Byrne, 2006). Assessing metric invariance was done by using (1) the fit indices of the metric invariance model and (2) the $\Delta\chi^2$ statistic between the (constraint) metric invariance model and the (unconstraint) configural invariance model (Williams et al., 2009). We use the $\Delta SB-\chi^2$ statistic because robust methods were used (Satorra & Bentler, 2001).

Metric invariance is supported when both the fit statistics of the metric invariance model are fitting and the $\Delta SB-\chi^2$ statistic is not statistically significant (Byrne, 2006). Metric invariance cannot be established by the $\Delta SB-\chi^2$ statistic alone and needs to be assessed in combination with the fit indices for the metric invariance model (Williams et al., 2009). Configural and metric invariance were tested for age (groups 45-50 and 50-55), gender, degree, job level, activity of organization (public/private) and the identification with the stereotype of an older worker. In order to perform the analysis in EQS, separate files were created for each group. We will now present the results of these tests per item, starting with age. The constrained models refer to the metric invariance models and the unconstrained models refer to the configural invariance models.

3.9.1.1 Age

The sample was divided into two age groups, both spanning half of the age range of the participants. The younger part of the sample, group 1, accounted for 54% of the sample. The second group with participants between the ages of 50-55 made up for 46% of the sample. The configural invariance test resulted in a S-B χ^2 statistic of 1710.9852 with 1012 degrees of freedom $p < .001$. This indicated a fitting model. The metric invariance test resulted in the following fit indices for the constrained model: Satorra-Bentler scaled chi-square = 1742.0648, $df = 1036$, $p < 0.00$, CFI = 0.922, and RMSEA = 0.026. These fit indices indicated a fitting model. Calculation of the significance of the difference in χ^2 statistic between the original and the modified structural model was done by performing a chi-square difference test, which calculates the $\Delta\chi^2$ and Δdf statistics (Cheung & Rensvold, 2002). Satorra & Bentler (2001) stated that the approach of computing separate Satorra-Bentler or SB-corrected test statistics for both models and calculating their difference is an incorrect way to establish a scaled $\Delta SB-\chi^2$. The authors proposed an alternative way of calculating the $\Delta SB-\chi^2$ statistic. This calculation, that was also illustrated by Byrne (2006) was used for the adjusted $\Delta SB-\chi^2$ statistic is presented below. Model 1 (M0) is the constrained model and model 2 (M1) is the unconstrained model.

$$K_0 = T_0 / \bar{T}_0 \text{ where } T_0 = ML\chi^2 \text{ and } \bar{T}_0 = SB\chi^2 = \frac{2115.425}{1742.0648} = 1.214$$

$$K_1 = T_1 / \bar{T}_1 \text{ where } T_1 = ML\chi^2 \text{ and } \bar{T}_1 = SB\chi^2 = \frac{2076.852}{1710.9852} = 1.214$$

$$\text{Usual difference test } (\Delta\chi^2; D) = T_0 - T_1 = 2115.425 - 2076.852 = 38,573$$

$$\text{SB scaling coefficient. } d = d_0 - d_1 \text{ where } d = \text{degrees of freedom and } k = (d_0 k_0 - d_1 k_1) / d$$

$$d = 1036 - 1012 = 24$$

$$k = \frac{(1036)(1.214) - (1012)(1.214)}{24} = \frac{29.136}{24} = 1.214$$

$$\Delta S-B \chi^2 \text{ statistic } \bar{D} = D/k = \frac{38,573}{1.214} = 31,773$$

The $\Delta SB-\chi^2$ statistic of 31.773 with 24 degrees of freedom is not significant. This combined with the fit indices for the metric invariance model indicates that the metric

invariance test was supported. This means that the strength of the associations between items and latent variable is sufficient (Williams et al., 2009).

3.9.1.2 Gender

The sample was made up of 46,2% woman and 53,8% man. The results of the configural invariance test indicated a fitting model. The EQS output file for this multi-group analysis gave a S-B χ^2 statistic of 1673.3288 with 1012 degrees of freedom $p < .001$. It can therefore be assumed that both man and woman used the same constructs while interpreting the items and filling out the questionnaire Williams et al. (2009). The metric invariance test was also supported. The fit indices for the metric invariance test: Satorra-Bentler scaled chi-square = 1675.1035, $df = 1036$, $p < .001$, CFI = 0.931, and RMSEA = 0.025. The $\Delta SB-\chi^2$ statistic of 13.628 with 24 degrees of freedom was not significant.

3.9.1.3 Degree

The participants had one of three types of degrees. These were intermediate vocational education (20,1%), higher vocational education (54,5%) and university education (25,4%). The S-B χ^2 statistic for the configural invariance test was 2230.8254 with 1518 degrees of freedom $p < 0.00$. The items degree and job level showed a higher value for the S-B χ^2 statistic, but also had a higher number for degrees of freedom. The χ^2 /df ratio for degree is 1.470 compared to e.g. 1.691 for the variable age that was described above. The metric invariance test for degree showed a moderately fitting model with the following fit indices: Satorra-Bentler scaled chi-square = 2244.5954, $df = 1566$, $p < .001$, CFI = 0.926, and RMSEA = 0.021. After comparing the constrained and unconstrained model the $\Delta SB-\chi^2$ statistic of 34.183 with 48 degrees of freedom was calculated. This $\Delta SB-\chi^2$ statistic was not significant, which means that both fit indices of the constrained model and the $\Delta SB-\chi^2$ statistic indicated that metric invariance was supported.

3.9.1.4 Job level

In order to assess configural invariance for the item job level, three separate SPSS files were created. These were operational (39,9% of participants), middle management (36,5% of participants) and higher management (23,7% of participants). A 3-group multi-analysis was done, using EQS. The S-B χ^2 statistic for this configural invariance test was 2287.4941 with 1518 degrees of freedom $p < .001$. This test statistic showed a higher value for S-B χ^2 than for the other items, but still indicated a fitting model. The χ^2 /df ratio for this item was 1.507. Compared to for instance the item public/private (χ^2 /df ratio = 1.735), the χ^2 /df ratio for job level was even lower, despite the higher value for the S-B χ^2 statistic. The metric invariance test for job level showed a moderately fitting model with the following fit indices: Satorra-Bentler scaled chi-square = 2337.4709, df = 1566, $p < .001$, CFI = 0.914, and RMSEA = 0.022. The Δ SB- χ^2 statistic for job level was 51.914 with 48 degrees of freedom. This Δ SB- χ^2 statistic was not significant. This means that both configural and metric invariance were supported for the variable job level.

3.9.1.5 Public/private

As 54,6% of the participants work for employers in the Dutch public sector, a test for configural invariance was run to see if the public and private sector groups had different frameworks regarding the different constructs that the latent variables measure. The S-B χ^2 statistic for the configural invariance test for activity of the participants' employer (public/private) was 1755.6346 with 1012 degrees of freedom $p < 0,00$. This test statistic indicated a fitting model. After this the multi-analysis was run again with the factor loadings constraint. This second run gave the following fit indices: Satorra-Bentler scaled chi-square = 1704.7532, df = 1036, $p < .001$, CFI = 0.927, and RMSEA = 0.025. These indices suggested moderate model fit. The Δ SB- χ^2 statistic was calculated at 11.190 with 24 degrees of freedom, which makes this non-significant statistic. The tests support both configural and metric invariance for this variable.

3.9.1.6 Stereotype

Before any multi-group analysis could be run with EQS, we created two new variables in the SPSS file. The first one was the scale construction for the latent variable stereotype, consisting of the three items that were measured. These items are ‘I see myself as an older worker’, ‘I have a lot in common with other older workers’ and ‘I see myself as belonging to the older workers’. The second variable that was created was ‘identification’. This variable divides low and high identification with the stereotype into two separate groups. The first group was the part of the sample that has a low score on the identification with the stereotype of an older worker. This group accounted for 53,4% of the participants. The second group was made up of those people that have a higher identification with the stereotype of being an older worker. 46,6% of the sample can be found in this second group. A separate SPSS file was created for each group.

These two files were used to perform the multi-group analysis in EQS. The S-B χ^2 statistic for the configural invariance test for ‘stereotype’ was 1770.1697 with 1012 degrees of freedom $p < 0.00$. This statistic is comparable with the S-B χ^2 statistics of the other items in this paragraphs and indicates a fitting model. This means that both people that have a low and a high score on identifying themselves with the stereotype of an older worker use the same constructs when filling out the questionnaire. After the configural invariance test we performed the metric invariance test. The constrained stereotype multi-analysis produced the following fit indices: Satorra-Bentler scaled chi-square = 1834.7212, $df = 1036$, $p < .001$, CFI = 0.914, and RMSEA = 0.028. These indices suggested moderate model fit. The $\Delta SB-\chi^2$ statistic was calculated at 177.853 with 24 degrees of freedom, which makes this a significant statistic. The tests support configural and do not support metric invariance for this variable.

After assessing the metric invariance, we assessed the EQS output file for the unconstrained multi-group analysis to establish the cause for the significant $\Delta SB-\chi^2$ statistic and found that the latent variables mobility I and II had very different values and loadings in the two groups of identification. The item Mob8 did not have any test statistic for the high identification group. The R^2 value of 1.0 for this group was the result of a zero error variance as it is calculated by subtracting the square of the error from 1.0 (Byrne, 2006). Mob2 was another item that seemed to be problematic with values for the test statistics. Mob2 had an error test statistic of .019 for the low identification group and .035 for the high identification

group. As can be seen in table 3.35 the error variance mentioned in the standardized solution for Mob2 was .116 for the low identification group and .157 for the high identification group.

Because only Mob8 did not have a test statistic for the measurement model, we tested the full structural model with both mobility I and II, in order to see how the test statistics would be when structural paths would be applied. When looking at the models as a whole, there seemed to be fit. As stated above, the fit indices supported model fit. Other values, such as the average off-diagonal values for the standardized residuals (0.0341 for model I and 0.0352 for model II) and the largest values for the standardized residuals (0.0362 for model I 0.0374 for model II) reflected a good fit to the data (Byrne, 2006). The frequency distribution of standardized residuals showed that 95,8% of the values fell between -0.1 and 0.1 (0,50% between -0.1 and -0.2, 3,53% between 0.1 and 0.2, 0,17% between 0.2 and 0.3) for model I. For model II we see that 94,6% of the values can be found between -0.1 and 0.1 (1,01% between -0.1 and -0.2, 3,70% between 0.1 and 0.2 and 0,34% between 0.2 and 0.3). According to Byrne (2006) these values indicate that the model as a whole appears to be fitting. Even though the fit indices for the entire model seemed to indicate reasonable fit, there were problems regarding the individual parameters.

The EQS output file however showed that there were a number of problems with the dependent latent variables mobility I and II or “promotion” and “demotion”. In the unstandardized solution, we see that Mob2 (Changing employers for another job with more responsibilities) had a loading of 0.2 and an error statistic of 0.000. The standardized solution for the latent variable mobility I can be found in table 3.35. The low identification group showed very low R^2 values for the latent variables mobility 1 and II. For mobility I, the item Mob2 (Changing employers for another job with more responsibilities) had a standard error of 0 and therefore the R^2 value for this item is 1.0 since EQS cannot define the test statistic (Byrne, 2006). Where Mob2 (Changing employers for another job with more responsibilities) had a R^2 of 1.0 for the low identification group, it was Mob8 (Changing employers for another job with fewer responsibilities) showed the same R^2 value of 1.0 for the high identification group. Because the R^2 is calculated by subtracting the square of the error from 1.0 and we do not have a statistic for the error, EQS cannot calculate the R^2 statistic (Byrne, 2006). This basically means that we do not have all the test statistics regarding mobility I and II. Therefore a new multi-group analysis was run, but this time with only one dependent variable, development activities.

<i>Measurement model</i>		<i>Structural model</i>	
<i>Rident 1 (low identification)</i>		<i>Rident 1 (low identification)</i>	
<i>Mobility I</i>	<i>R²</i>	<i>Mobility I</i>	<i>R²</i>
MOB2 =V31 = .993 F8 + .116 E31	.987	MOB2 =V31 = 1.000 F8 + .000 E31	1.000
MOB4 =V32 = .677*F8 + .736 E32	.458	MOB4 =V32 = .672*F8 + .740 E32	.452
<i>Mobility II</i>	<i>R²</i>	<i>Mobility II</i>	<i>R²</i>
MOB7 =V33 = .621 F9 + .784 E33	.386	MOB7 =V33 = .627 F9 + .779 E33	.393
MOB8 =V34 = .963*F9 + .269 E34	.928	MOB8 =V34 = .954*F9 + .300 E34	.910
MOB10 =V35 = .646*F9 + .763 E35	.418	MOB10 =V35 = .652*F9 + .758 E35	.426
<i>Rident 2 (high identification)</i>		<i>Rident 2 (high identification)</i>	
<i>Mobility I</i>	<i>R²</i>	<i>Mobility I</i>	<i>R²</i>
MOB2 =V31 = .988 F8 + .157 E31	.975	MOB2 =V31 = .957 F8 + .291 E31	.915
MOB4 =V32 = .674*F8 + .739 E32	.454	MOB4 =V32 = .695*F8 + .719 E32	.483
<i>Mobility II</i>	<i>R²</i>	<i>Mobility II</i>	<i>R²</i>
MOB7 =V33 = .618 F9 + .786 E33	.382	MOB7 =V33 = .618 F9 + .786 E33	.382
MOB8 =V34 = 1.000*F9 + .000 E34	1.000	MOB8 =V34 = 1.000*F9 + .000 E34	1.000
MOB10 =V35 = .606*F9 + .796 E35	.367	MOB10 =V35 = .606*F9 + .796 E35	.367

Table 3.35 Standardized solutions and R² for measurement and structural models for low and high identification groups

In order to see if configural and metric invariance would be supported when the latent variables mobility I and II were dropped from the model, the same two invariance tests were run with the 8-factor model. In this modified model, development activities was the only dependent variable. When assessing configural invariance, the S-B χ^2 statistic showed a drop from 1770.1697 with 1012 degrees of freedom $p < .001$ to 1277.8253 with 712 degrees of

freedom $p < .001$, indicating a better fitting model. Configural invariance was therefore supported. The metric invariance test also showed better fit-indices for the constraint metric invariance model. The fit indices improved from Satorra-Bentler scaled chi-square = 1834.7212, $df = 1036$, $p < .001$, CFI = 0.914, and RMSEA = 0.028 for the original 10-factor model to Satorra-Bentler scaled chi-square = 1303.6557, $df = 733$, $p < .001$, CFI = 0.927, and RMSEA = 0.027 for the modified model. The $\Delta SB-\chi^2$ statistic was calculated at 26.461 with 21 degrees of freedom. This $\Delta SB-\chi^2$ statistic is not significant. This means that for the 8-factor model, both configural and metric variance were supported.

3.9.2 Structural model obligations

In the previous section we described the measurement model. In this section we will describe the structural model. The structural model was tested with the use of EQS 6.1. Robust methods were selected to correct for non-normality in large samples (Byrne, 2006). The model that was tested for this section is the basic 8-factor structural model that was presented earlier. The independent variables are the six latent variables or factors measuring employer obligations (job content, career development, social atmosphere, work-life balance, rewards) and the single latent variable or factor measuring employee obligations (development activities). Before testing the moderating effect of the latent variable 'stereotype' we tested the basic 8-factor structural model with EQS 6.1. According to Hu & Bentler (1999) there are two popular ways of establishing structural model fit. The first one is the chi-square statistic and the second one is using the different fit indices that are available to researchers. The χ^2 statistic, CFI and RMSEA were all described in the previous section.

The basic 8-factor structural model that was tested showed a relatively good fit (Satorra-Bentler scaled chi-square = 780.9358, $df = 349$, $p < .001$, CFI = 0.944, and RMSEA = 0.034 with the RMSEA 90% confidence interval being 0.031-0.038). The χ^2 /df ratio = 2.238, which is well below the cutoff point of 3 mentioned by Kline (1998) and Iacobucci (2010). The distribution of standardized residuals indicated that 98,85% of the standard residual were distributed between the values -0.1 and 0.1. All individual parameters, including the error variances, were significant.

<i>F8 =F8=</i>							
.108*F1	+ .256*F2	- .242*F3	+ .026*F4	+ .136*F5	+ .296*F6	+ .156*F7	+1.000 D8
.064	.090	.065	.099	.082	.114	.116	
1.694	2.842@	-3.723@	.262	1.653	2.595@	1.345	
(.066)	(.101)	(.067)	(.106)	(.083)	(.116)	(.130)	
(1.628)	(2.518@)	(-3.623@)	(.246)	(1.635)	(2.546@)	(1.196)	

Table 3.36 Initial structural paths for the latent variable development activities

After the first round a number of structural paths were indicated as significant and a number of structural paths between the independent and dependent latent variables were not significant. In order to establish redundancy of structural paths, both the univariate estimates of significance from the output model and the results from the Wald Test, which is a multivariate test of statistical significance (Byrne, 2006), were used. The parameter statistics for the unrestricted model can be found in table 3.36. The robust statistics are in parentheses.

The Wald Test initially identified F1, F4, F5 and F7 as being redundant. When looking at the univariate estimates of significance, one would come to the same conclusion. However, these structural paths are based on the entire sample. In order to prevent possible significant parameters regarding the outcome of the multi-group analysis to be lost, the decision was made not delete any of the parameters before the multi-analysis was run. The multi-group analysis was performed with EQS. The first group (low score on the identification with the stereotype of an older worker) accounted for 53,4% of the participants. The second group (higher identification with the stereotype of being an older worker) accounted for 46,6% of the sample. A separate SPSS file was created for each group. These two files were used to perform the multi-group analysis in EQS. The multi-group analysis was run twice. The first time both groups had no constraints. The second time constraints were selected for the second group (Byrne, 2006).

The unconstrained multi-group analysis showed moderate fit with Satorra-Bentler scaled chi-square = 1192.5010, df = 698, p < .001, CFI = 0.937, and RMSEA = 0.026. After the first analysis, a second multi-group analysis was run with again the low and the high identification groups, but this time with equality constraints selected for the second group

(Byrne, 2006). The constrained multi-group analysis also showed moderate fit, albeit this model indicates a less fitting solution than the unconstrained analysis, with Satorra-Bentler scaled chi-square = 1304.7228, $df = 784$, $p < .001$, CFI = 0.933, and RMSEA = 0.025. One of the values that are used to report on multi-group invariance is the difference in chi-square values or $\Delta\chi^2$. Because robust methods were used, the statistic reported here is again the $\Delta SB-\chi^2$. The $\Delta S-B \chi^2$ statistic was calculated to see if it was significant or not.

The $\Delta S-B \chi^2$ statistic was significant ($\Delta S-B \chi^2 118.246$, $df= 86$, $P < 0.01$). A significant $\Delta S-B \chi^2$ statistic means that the models that were tested in the multi-group analysis are not equivalent across the two groups (Byrne, 2006). To interpret the differences between the low and high identification group, the structural paths for both groups were assessed. Regarding the structural paths we can see that there are a number differences between the low and high identification groups. The low identification group had two significant structural paths. These are F3-F8 (social atmosphere-development activities) and F6-F8 (rewards-development activities). The high identification group had three significant structural paths. These are F2-F8 (career development-development activities), F3-F8 (social atmosphere-development activities) and F5-F8 (work life balance-development activities). For both groups the path F3-F8 (social atmosphere-development activities) was negative, while the others were positive. F2-F8 (career development-development activities) was only significant for the high identification group, but dis show a fairly high parameter statistic for the low identification group as well. Differences are seen in the structural path F4-F8 (organizational policies-development activities).

This parameter had a positive statistic for the low identification group, but the statistic is negative for the high identification group. Other differences are the structural paths F5 (work life balance) -F8 and F6 (rewards) -F8. For the low identification group F6-F8 was significant and for the high identification group F5-F8 was significant. F6 showed some parameter value for the high identification group, but F5 had the lowest statistic when compared with the others in the low identification group.

<i>Low identification group</i>							
F8 =F8=							
.119*F1	+ .224*F2	- .286*F3	+ .223*F4	+ .026*F5	+ .391*F6	+ .189*F7	+1.000 D8
.085	.137	.094	.135	.113	.146	.174	
1.400	1.632	-3.058@	1.646	.235	2.672@	1.085	
(.080)	(.152)	(.094)	(.134)	(.111)	(.147)	(.187)	
(1.489)	(1.473)	(-3.042@)	(1.663)	(.237)	(2.669@)	(1.012)	
<i>High identification group</i>							
F8 =F8=							
.118*F1	+ .270*F2	- .195*F3	- .207*F4	+ .248*F5	+ .248*F6	+ .069*F7	+1.000 D8
.104	.122	.087	.154	.119	.207	.155	
1.134	2.210@	-2.243@	-1.347	2.095@	1.200	.448	
(.123)	(.132)	(.091)	(.152)	(.115)	(.205)	(.181)	
(.962)	(2.051@)	(-2.144@)	(-1.360)	(2.153@)	(1.208)	(.383)	

Table 3.37 Structural paths for low and high identification groups

After running the multi-group analysis and establishing the significant paths for each group, we returned to the basic model in order to see if we could drop a number of the non-significant parameters from the model. As we described before, the Wald Test initially identified F1, F4, F5 and F7 as being redundant. After the multi-group analysis, we see that F5 is significant for the high identification group. We therefore ran the full model once more, but this time without the paths F1-F8, F4-F8 and F7-F8. The fit indices for this model were Satorra-Bentler scaled chi-square = 784.8783, df = 352, $p < .001$, CFI = 0.944, and RMSEA = 0.034 with the RMSEA 90% confidence interval being 0.031-0.038). The χ^2 statistic is a little bit higher but some degradation in χ^2 is normal when trimming parameters (Byrne, 2006). The Δ S-B χ^2 statistic however is not significant with a value of 4.049 and 3 degrees of freedom. This indicates that we can drop parameters F1-F8, F4-F8 and F7-F8 (Byrne, 2006). However, parameters should only be dropped if theory allows for this (Byrne, 2006). Because the goal

was to study the psychological contract dimensions no parameters were dropped and the 8-factor model with structural paths F1-F8 through F7-F8 was maintained.

3.9.3 Structural model delivered inducements

Since the factor structure that was established for the employer and employee obligations was used to run the polynomial regression analysis, the same structure was adopted for both sets of models for the structural equation modelling. Therefore no separate confirmatory factor analysis was performed for the delivered inducements. The structural model with 8 latent variables that was tested for the obligations of the psychological contract was again used, but this time using the data from the delivered inducements. The first analysis was on the full structural model using the entire sample. The fit indices show reasonable fit: Satorra-Bentler scaled chi-square = 1046.5272, df = 349, $p < .001$, CFI = 0.938, RMSEA = 0.045 with the 90% confidence interval between 0.042 and 0.048. The χ^2 /df ratio is just below the cutoff point of 3 mentioned by Kline (1998) and Iacobucci (2010). The distribution of standardized residuals indicates that 98,16% of the standard residual is distributed between the values -0.1 and 0.1. All individual parameters, including the error variances, were significant. The results regarding the structural path are presented in the table below.

F8 =F8=							
142*F1	+ .224*F2	- .240*F3	+ .042*F4	+ .046*F5	- .076*F6	+ .356*F7	+1.000 D8
.083	.150	.074	.087	.072	.155	.092	
1.711	1.499	-3.254@	.484	.636	-.490	3.884@	
(.086)	(.150)	(.079)	(.094)	(.074)	(.160)	(.101)	
(1.650)	(1.494)	(-3.040@	(.447)	(.620)	(-.475)	(3.250@	

Table 3.38 Structural paths for the full structural model

The Wald Test identified F4, F5 and F6 as being redundant. In order to prevent possible significant parameters regarding the outcome of the multi-group analysis to be lost, the decision was made not delete any of these structural paths before the multi-analysis was run.

The next step was the multi-group analysis. Separate SPSS files were created for the low and high identification groups. These multi-group analyses were run in order to establish if the models were equivalent across the two groups. The multi-group analysis was performed twice in EQS 6.1. The first time both groups had no constraints. The fit indices for the first run showed reasonable fit: Satorra-Bentler scaled chi-square = 1380.9351, df = 698, $p < .001$, CFI = 0.939, RMSEA = 0.031 with the 90% confidence interval between 0.029 and 0.034. The second time constraints were selected for the second group (Byrne, 2006). Again the fit indices showed reasonable fit, although the chi-square value had increased: Satorra-Bentler scaled chi-square = 1481.2137, df = 784, $p < .001$, CFI = 0.938, RMSEA = 0.030 with the 90% confidence interval between 0.028 and 0.032.

The $\Delta S-B \chi^2$ statistic was calculated to see if the difference in chi-square values between the first and second run was significant or not. The $\Delta SB-\chi^2$ statistic was used because of the robust methods that were used in the two analyses (Satorra and Bentler, 2001). The calculation for the $\Delta SB-\chi^2$ statistic is presented below. The $\Delta SB-\chi^2$ statistic Model 1 (M0) is the constrained model and model 2 (M1) is the unconstrained model.

$$K_0 = T_0 / \bar{T}_0 \text{ where } T_0 = ML\chi^2 \text{ and } \bar{T}_0 = SB\chi^2 = \frac{1792.470}{1481.2137} = 1.21$$

$$K_1 = T_1 / \bar{T}_1 \text{ where } T_1 = ML\chi^2 \text{ and } \bar{T}_1 = SB\chi^2 = \frac{1671.483}{1380.9351} = 1.21$$

$$\text{Usual difference test } (\Delta\chi^2; D) = T_0 - T_1 = 1792.470 - 1671.483 = 120.987$$

$$\text{SB scaling coefficient. } d = d_0 - d_1 \text{ where } d = \text{degrees of freedom and } k = (d_0 k_0 - d_1 k_1) / d$$

$$d = 784 - 698 = 86$$

$$k = \frac{(784)(1.21) - (698)(1.21)}{86} = \frac{104.06}{86} = 1.21$$

$$\Delta S-B \chi^2 \text{ statistic } \bar{D} = D/k = \frac{120.987}{1.21} = 99.989$$

The $\Delta SB-\chi^2$ statistic of 99.989 with 86 degrees of freedom is not significant. A non-significant $\Delta S-B \chi^2$ statistic means that the models that were tested in the multi-group analysis are equivalent across the two groups (Byrne, 2006). Although the $\Delta SB-\chi^2$ statistic showed equivalence across the two groups for the entire model, there were a number of differences regarding significant structural paths for each group.

Low identification group							
F8 =F8=							
.250*F1	+ .395*F2	- .296*F3	- .025*F4	+ .056*F5	- .227*F6	+ .562*F7	+1.000 D8
.121	.201	.108	.128	.112	.229	.146	
2.066@	1.968@	-2.744@	- .196	.500	- .993	3.839@	
(.121)	(.203)	(.117)	(.141)	(.106)	(.232)	(.150)	
(2.066@	(1.947)	(-2.537@	(-.178)	(.526)	(-.980)	(3.839@	
High identification group							
F8 =F8=							
.086*F1	- .014*F2	- .217*F3	+ .132*F4	+ .012*F5	+ .083*F6	+ .163*F7	+1.000 D8
.114	.228	.106	.118	.096	.216	.116	
.755	- .060	-2.050@	1.116	.126	.383	1.404	
(.119)	(.230)	(.109)	(.122)	(.101)	(.230)	(.131)	
(.724)	(-.059)	(-1.996@	(1.077)	(.119)	(.359)	(1.248)	

Table 3.39 Structural paths for low and high identification groups

As can be seen in table 3.39 the R1 group had more significant structural paths than the R2 group. The low identification group had significant paths for F1-F8 (job content-development activities), F3-F8 (social atmosphere-development activities), and F7-F8 (employee obligations- development activities). Except for F3-F8 the paths were positive in sign. F2-F8 (career development-development activities) did not have a significant robust statistic, but did show a significant ML statistic. The high identification group had only one significant statistic for the structural paths: F3-F8 (social atmosphere-development activities). This path was negative in sign.

After establishing the significant paths for each group the analysis on the full structural model with 8 factors was run once more in order to establish if any non-significant parameters could be dropped from the model. The Wald Test had previously identified F4, F5 and F6 as being redundant. These were dropped from the model. The analysis was run again,

which resulted in the following fit indices: Satorra-Bentler scaled chi-square = 1048.3821, $df = 352$, $p < .001$, CFI = 0.938, and RMSEA = 0.044 with the RMSEA 90% confidence interval being 0.041-0.048). The $\Delta S-B \chi^2$ statistic was not significant with a value of 0.707 and 3 degrees of freedom. This indicates that we can drop parameters F4-F8, F5-F8 and F6-F8 (Byrne, 2006). As for the structural model for psychological contract obligations no parameters were dropped from the model. This was done because our research model assumes that the psychological contract has an influence on the outcome variables and therefore all dimensions of the psychological contract should be included, even if structural paths appear to be non-significant.

3.10 Conclusions

Chapter 3 presented the reader with the methodology, research design, model, research questions, and the hypotheses of this study. The descriptive statistics were presented after explaining how the questionnaire and data analysis were developed. Finally the different statistical analyses used for this study were presented. Three separate paragraphs gave an overview of the exploratory factor analysis, confirmatory factor analysis, polynomial regression analyses with three-dimensional surfaces, and the structural equation modelling.

The findings and conclusions of these analyses will be discussed in chapter 4. Some of the initial findings regarding the results that stood out are (1) a higher mean for obligations than for delivered inducements for all psychological contract dimensions. (2) The polynomial regression analyses allowed to test with the absolute values of both obligations and delivered inducements for each individual psychological contract dimension and showed that the three-dimensional surfaces were not the same for every dimension. (3) The structural models revealed that there are differences in the significance and sign of the paths that make up the psychological contract and that these differences for people with either a low or high identification with the stereotype of being an older worker.

Chapter Four

Research findings and discussion

4 Research findings and discussion

4.1 Introduction

After we presented the analysis and results in chapter three, we will now present the main findings and discussion of the results in this chapter. We will start with a recap of the research objectives before presenting the main findings. These will be presented according to the hypotheses that were defined in the previous chapter. After the discussion of the results, organized per dependent variable, we will present the relevant limitations, contributions, and suggestions for future research and practice.

4.2 Main objectives of this study

The purpose of this study was to examine the relationships between the individual dimensions of the psychological contract and two employability related career intentions for a sample of workers aged 45-55, active on the Dutch labor market: intentions to participate in development activities and intentions to accept mobility options. The second objective was to establish if the extent to which an employee identifies him or herself with the stereotype of being an older worker has any effect on these relationships. This study had several objectives that were included in the following research questions: (1) What are the influences of deficient and excess inducements on the career intentions of older workers? (2) What is the relationship between the absolute levels of fulfilment and the outcome variables? (3) What are the differences between the psychological contract content-dimension relationships with career intentions? (4) What is the influence of a higher or lower identification with the social group of older workers on the different relationships?

4.3 Research findings

In this paragraph we will discuss the research findings for each hypothesis. The results of the different analyses were already treated in chapter 3. An overview of all the hypotheses with their predicted sign and results is presented at the end of this paragraph. For the models and corresponding three-dimensional surfaces the same design as Lambert et al. (2003) was

used. The obligations were placed on the Y-axis, and the delivered inducements on the X-axis. The line from low to high absolute levels of fulfilment was called the fulfilment line. A second line from low obligations-high deliveries to high obligations-low deliveries was called the breach line. Everything on the breach line, left of the fulfilment line was indicated as deficient fulfilment, whereas everything on the right side of the fulfilment line was called excess fulfilment.

Hypothesis 1a: Deficient inducements are positively related with development activities and mobility intentions. This hypothesis was partially supported. Table 3.17 indicates that except for social atmosphere all other dimensions had increasing levels of development activities on the deficiency side of the fulfilment line. Social atmosphere was the only model that was not significant at $P < .05$ (table 3.20). Besides the increase in development intentions for deficient inducements, the surfaces also reported higher levels of development intentions at the deficiency end of the breach line (highest promises - lowest deliveries) than at the excess end (lowest promises - highest deliveries). Social atmosphere was the only dimension that had approximately the same level of intentions along the breach line, with somewhat higher levels on the excess end than on the deficiency end.

All dimensions showed a very clear and similar surface for mobility I, intentions to accept a job with more responsibilities with another employer. Without exception the results that are presented in table 3.18 show that there is a positive relationship between deficient inducements and mobility I. The results for mobility II (table 3.19) were different than for mobility I. Although the levels on the deficiency side of the breach line were higher than on the excess side, all surfaces showed either a levelling off or drop in levels of mobility II intentions when the breach line approached the end of the deficiency side.

Hypothesis 1b: Excess inducements on the employer obligations job content, career development, organizational policies are positively related with development activities and mobility intentions. This hypothesis was partially supported. With the exception of organizational policies, the other dimensions showed a positive relationship between excess inducements and development intentions (table 3.17). The same results were found for mobility I (table 3.18). Organizational policies did not show any increase in intentions after the breach line passed the fulfilment line. Job content and career development did have an increase in reported levels of intentions towards the end of the excess end of the breach line.

For mobility II all three dimensions showed lower levels of intentions to accept a job with fewer responsibilities for excess inducements (table 3.19).

Hypothesis 1c: There is a positive relationship between excess inducements on the employer obligations social atmosphere, work-life balance, rewards and development activities. According to the response surfaces for the different models in table 3.17 this hypothesis was supported. We do have to point out that the model for social atmosphere was not significant at $P < .05$ (table 3.30). All three dimensions had higher levels at the excess end of the breach line than at the point where the fulfilment line intercepts the breach line.

Hypothesis 1d: Excess inducements on the employer obligations social atmosphere, work-life balance, and rewards are negatively related to mobility intentions. This hypothesis was partially supported. The results for mobility I and II can be found in tables 3.18 and 3.19. Social atmosphere had a drop in willingness to accept mobility I from the highest point of the breach line, that continued to drop after passing the fulfilment line. An excess inducement on the dimensions work-life balance and rewards was however positively related with mobility I; intentions regarding jobs outside of the current company with more responsibilities. In line with hypothesis 1d the results for willingness to accept a job with fewer responsibilities show that there is a negative relationship between excess inducements on all three dimensions and mobility II.

Hypothesis 1e: There is a positive relationship between deficient inducements and perceived psychological contract violation. Hypothesis 1e was fully supported. Table 3.16 shows that all six dimensions had a surface, which clearly followed the breach line, having its highest point at the top of the deficiency side of the breach line (highest promises - lowest deliveries) and its lowest point at the excess end of the breach line (lowest promises - highest deliveries).

Hypothesis 1f: There is a positive relationship between excess inducements on the employer obligations job content, career development, organizational policies and perceived psychological contract violation. Although the surfaces levelled off towards the end of the excess side of the breach line, there was no increase in violation as the excess inducement increased (table 3.16). Therefore no support was found for this hypothesis.

Hypothesis 2a: There is a positive relationship between the absolute level of fulfilment and development activities. The different models in table 3.17 show that this hypothesis was partially supported. The dimensions job content, career development, organizational policies, and work-life balance all showed an increase in the level of the intention to participate in development activities. The dimension rewards showed a rise in intentions but this inclination stabilized and at one point towards the highest levels of absolute fulfilment the three-dimensional surface even seems to be showing a decline along the fulfilment line. The only dimension showing a completely different surface was social atmosphere. As was stated above, this was the only model that did not have significant statistics (table 3.20). The levels of development intentions initially increased, but halfway through the fulfilment line they dropped. Levels continued to drop up till the point of highest absolute fulfilment. The levels at highest absolute fulfilment were comparable to the levels of lowest absolute fulfilment.

Hypothesis 2b: There is a negative relationship between the absolute level of fulfilment and mobility intentions. Hypothesis 2 was partially supported. For mobility I (table 3.18) all dimensions but work-life balance had their lowest levels of mobility intentions at the highest score for absolute levels of fulfilment. This means that for five out of six employer dimensions there was a negative relationship between the absolute level of fulfilment and the intentions of accepting a job opportunity with more responsibilities. The dimension work-life balance seemed to have an almost flat surface along the fulfilment line. The shape of the surface did vary between the other five dimensions, with social atmosphere being the only dimension with a very distinct decline between the lowest and highest levels of fulfilment.

For mobility II (table 3.19) all dimensions show a decrease in intentions as the levels of fulfilment increase, although the surfaces do not show a straight line from low to high fulfilment. Except social atmosphere and work-life balance all other surfaces had a shape that showed an increase until the fulfilment line reached the breach line. After the breach line the level of mobility intention declined as the levels of absolute fulfilment increase. High levels of fulfilment therefore showed lower levels of intentions on mobility II. Social atmosphere had an almost flat surface along the fulfilment line, indicating no real changes with regard to the levels of fulfilment. Work-life balance had a surface that resembled that of social atmosphere, although the decrease in mobility intention seemed to be steeper, indicating somewhat larger changes along the fulfilment line.

Hypothesis 2c: There is a negative relationship between the absolute level of fulfilment and perceived psychological contract violation. This hypothesis was fully supported. For all six dimensions the level of perceived psychological contract violation peaked at the point of lowest absolute fulfilment (table 3.16). Levels dropped along the fulfilment line to reach their lowest point when reaching the highest levels of absolute fulfilment.

Hypothesis 3a: Social atmosphere, work-life balance, and rewards have a significant positive relationship with development activities. This hypothesis was only partially supported. The results for the employer obligations that are presented in table 3.46 showed that F3 (social atmosphere) and F6 (rewards) had a significant relationship with F8 (career intentions). There was no significant relationship for work-life balance. As to the sign of the relationships, only the dimension rewards was positively related with the outcome variable, whereas the one for social atmosphere was negative in sign. Although work-life balance was not significantly related with career intentions, the relationship was positive in sign. The structural model for the delivered inducements showed that only social atmosphere was significantly related to career intentions, but this relationship was negative in sign. Although not significantly related to the development activities, the relationship for work-life balance was positive. The relationship for rewards was negative.

Hypothesis 3b: Social atmosphere, work-life balance, and rewards have a significant negative relationship with mobility intentions. This hypothesis could not be tested because the mobility intentions were dropped from the full structural model due to the fact that we did not have all the test statistics regarding mobility I and II. The adopted approach was explained in section 3.9.1.6.

Hypothesis 4a: There is a negative relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and development activities for the people in the low identification group. This hypothesis was not supported. The results presented in tables 3.23 and 3.24 show that all three dimensions reported increasing levels of development intentions along the fulfilment line. From the three models tested, social atmosphere did not have significant statistics (table 3.32).

Hypothesis 4b: There is a positive relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and mobility intentions for the

people in the low identification group. Hypothesis 4b was partially supported. The surfaces for social atmosphere (table 3.25) and work-life balance (table 3.26) showed an increase of mobility I intentions along the fulfilment line. There was a difference between social atmosphere and work-life balance. The surface for social atmosphere presented highest levels of mobility I intentions at the low end of the fulfilment line. This level dropped until the breach line intercepted the fulfilment line and from that point the levels started rising again, reaching the top at the high end of the fulfilment line. The model that was tested for social atmosphere was not significant at $P < 0.05$ (table 3.33). For work-life balance the results were different. The lowest levels of mobility I intentions were recorded at the low end of the fulfilment line. The levels increased but seem to level out a little towards the high end of the fulfilment line. The model for rewards did not have significant statistics (table 3.33) and showed a similar surface (table 3.26) as work-life balance but the levels dropped lower at the high end, indicating that higher fulfilment on the dimension rewards lowers mobility I intentions for participants from the low identification group.

The second set of models examined mobility II (tables 3.27 and 3.28). The results were different than hypothesized. The mobility II intention levels for the dimension rewards were as low at the high end of the fulfilment line as they were at the low end of the same line. The statistics for the model that tested the promised and delivered inducements regarding rewards were not significant at $<0,05$ (table 3.29). The intention levels for social atmosphere and work-life balance increased initially but dropped after passing the breach line and were lower at the high end of the fulfilment line.

Hypothesis 5a: The dimensions social atmosphere and work-life balance are positively related with the career intentions for participants in the high identification group. This hypothesis was partially supported. For employer obligations (table 3.37), the dimension social atmosphere was significantly and negative related to development activities. Work-life balance was significantly and positive related to the development intentions. The same results were found for the participants in the low identification group, although the relationships were stronger for this group. Regarding delivered inducements (table 3.39) only social atmosphere was significantly related to development activities, but the relationship was negative in sign. For this group the results on this dimension were comparable with the employer obligations in that both showed a negative and significant relationship, although the relationship for employer obligations was stronger.

Hypothesis 5b: The dimension rewards is positively related with the career intentions for participants in the low identification group. This hypothesis was partially supported. The full structural model for employer obligations had a significantly and positive structural path for rewards and development activities (table 3.37). This path was also positive for the delivered inducements model (table 3.39), although this structural path was not significant.

	Hypothesis	Sign	Supported
H1a	Deficient inducements are positively related with development activities and mobility intentions.	+	Partially
H1b	Excess inducements on the employer obligations job content, career development, organizational policies are positively related with development activities and mobility intentions.	+	Partially
H1c	There is a positive relationship between excess inducements on the employer obligations social atmosphere, work-life balance, rewards and development activities.	+	Yes
H1d	Excess inducements on the employer obligations social atmosphere, work-life balance, rewards are negatively related to mobility intentions.	-	Partially
H1e	There is a positive relationship between deficient inducements and perceived psychological contract violation	+	Yes
H1f	There is a positive relationship between excess inducements on the employer obligations job content, career development, organizational policies and perceived psychological contract violation.	+	No
H2a	There is a positive relationship between the absolute level of fulfilment and development activities.	+	Partially
H2b	There is a negative relationship between the absolute level of fulfilment and mobility intentions.	-	Partially
H2c	There is a negative relationship between the absolute level of fulfilment and perceived psychological contract violation.	-	Yes
H3a	Social atmosphere, work-life balance, and rewards have a significant positive relationship with development activities.	+	Partially

H3b	Social atmosphere, work-life balance, and rewards have a significant negative relationship with mobility intentions.	-	Inconclusive
H4a	There is a negative relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and development activities for the people in the low identification group.	-	No
H4b	There is a positive relationship between levels of absolute fulfilment for the dimensions rewards, social atmosphere, work-life balance and mobility intentions for the people in the low identification group.	+	Partially
H5a	The dimensions social atmosphere and work-life balance are positively related with the career intentions for participants in the high identification group.	+	Partially
H5b	The dimension rewards is positively related with the career intentions for participants in the low identification group.	+	Partially

Table 4.1 Overview of hypotheses

4.4 Discussion

After the results and the findings of the different analyses that were presented in chapter three and the previous paragraph we will now discuss these outcomes. The discussion is organized according to the three dependent variables in the research model and the outcome variable psychological contract violation that was used for the polynomial regression analysis. Several general discussion topics are also discussed.

4.4.1 Development activities

Development activities consisted of several items that measured intentions to initiate development related actions regarding the participant's job and career. The measures that were retained after the two rounds of factor analyses were all related to actions related to the current employer: (1) I intend discussing my personal development and career with my manager during a formal meeting, (2) I will actively participate in development activities for my current job, (3) I am going to make an overview of my strengths and weaknesses in my

job, (4) I will ask my manager for feedback on my job-related behaviors, performance and skills.

4.4.1.1 Deficient and excess inducements

One of the goals of this study was to study the influences of deficient and excess inducements on the career intentions of older workers. Breach is related to negative attitudes towards the job and organization (Conway & Briner, 2005) and we therefore hypothesized that deficient inducements would lead to higher intentions for participating in development activities, as development is a way to be more employable (Van Dam et al., 2006) and this would thus be a potential way for participants to move to another job and/or employer. With the exception of the dimension social atmosphere all other models showed that deficient inducements are positively related to development intentions. This suggests that participants want to invest in their career opportunities as the level of breach through deficient inducements increases.

Turning to over-fulfilment of inducements by the employer, we found that the dimension organizational policies (receiving more feedback, open communication, and information) seems to have a negative effect on the intentions to participate in development activities while the dimensions job content and career development show a positive relationship. Although deficient inducements had higher levels of development intentions, there was an increase for excess inducements regarding job content and career development. Especially job content is an interesting dimension. De Lange et al. (2005) and Armstrong-Stassen (2008) suggested that older workers need a challenging environment in order to be motivated to develop themselves. The dimensions job content relates to those kinds of situations, with items measuring the possibilities of having varied, challenging, and interesting work. Our three-dimensional surfaces seem to confirm that the more variety and challenges in the participant's job, the higher the intention to participate in development activities.

The models that studied the low and high identification groups showed that there were several dimensions where R1 and R2 differed regarding the excess inducements. Job content has a positive relationship between excess inducements and intentions to participate in development activities for the low identification group whereas this relationship is negative

for the high identification group. This suggests that seeing oneself as an older worker might lead to different interpretations of over-fulfilment on items such as varied, challenging, and interesting work. Identifying with popular beliefs and stereotypes regarding one's social group can result in starting to produce the projected traits (Schmitt et al., 2003).

One of the dominant stereotypes towards older workers is that this group is not motivated to participate in development activities and does not have the same capabilities as younger employees regarding learning and development (Maurer et al., 2008). Another study by Maurer, Weiss & Barbeite (2003) reported that respondents perceived having fewer cognitive abilities and learning abilities. Van Vianen (2011) suggested that this was a normal popular view as societal norms and expectations predict settlement, stability, and a decrease in desires and opportunities for older workers. Excess inducements on job content might go against the views surrounding older workers and participants that report high identification with that group, might reproduce the intentions that align with the stereotypes. Participants that do not see themselves as an older worker might try to use the coping strategies (Tajfel & Turner, 1986) such as social mobility. This might explain why these participants reported higher intentions to participate in development activities as the levels of excess inducements rose.

Organizational policies had different results regarding the relationship between excess inducements and development activities than the dimensions job content and career development although all three were hypothesized to have a positive relationship. The statistics for the R2 (high identification) model were not significant, but it is interesting to mention that the three-dimensional surfaces for R1 and R2 were quite different. They were also the opposite of the models for job content with a positive relationship between excess inducements for participants in the high identification group and a negative relationship for participants in the R1 group. A possible explanation for this finding might be found in the informational character of the items measuring organizational policies (e.g. feedback on performance, clear and fair rules and regulations, keeping you informed, and open communication).

Mathieu & Martineau (1997) identified several communication related influences on the willingness of workers to participate in development. (1) The adequacy of job-related information might interfere or restrict developmental performance. (2) Depending on the

specific setting, demanding individuals or groups of employees to participate in training might have a positive influence on getting the message across to employees or groups of employees that training is seen as being important. (3) If training is to be successful, potential resistance towards learning and concerns about training have to be addressed first. The mix of items that measure organizational policies might be used specifically to address concerns and explain why development activities are necessary, thereby increasing levels of motivation for participation in development activities.

If a higher identification with beliefs and stereotypes regarding older workers can result in starting to produce the projected traits (Schmitt et al., 2003) then we can assume that these participants might have more questions, concerns and resistance towards development activities. As was presented in chapter two, there are multiple stereotypes regarding older workers and development. Examples are: older workers are less motivated to participate in learning and development activities (Loretto & White, 2006, Maurer et al., 2008, Kooij et al., 2011), older employees are too slow, inflexible and/or difficult to train (Warr, 1993, Hall & Mirvis, 1995, van Veldhoven & Dorenbosch, 2008). Besides stereotypes older workers might also believe that they do not need additional training (Beehr & Bowling, 2002). If communication is such an important factor in influencing the willingness to participate in development (Mathieu & Martineau, 1997) it would seem plausible that a context with more room for discussion, feedback and information will address these concerns and therefore result in higher willingness to participate for the participants in the R2 group.

4.4.1.2 Absolute levels of inducements

The absolute levels of fulfilment were thought to have a positive relationship with development activities. For the majority of models this hypothesis was supported, suggesting that higher levels of fulfilment have a positive influence on the intentions to participate in development activities. Two models however did not have a positive relationship: social atmosphere and rewards. The model for social atmosphere did not have significant statistics. The dimension rewards showed a fulfilment line with decreased levels of development activities as the line moved towards the highest levels of fulfilment.

The question is why rewards seem to have a different relationship with development activities than the other dimensions? As was explained in chapter three the development activity items that were retained after the exploratory and confirmatory factor analyses were all related to the present job and employment setting. If development activities are associated with getting more benefits and monetary rewards, it might be that participants no longer see the use in participating in development activities once they have reached a certain level of rewards. This higher fulfilment level on remuneration might even be perceived as high enough or the highest the participant could get at their company, thereby lowering the motivation for participation in activities that are no longer useful because there are no more perceived opportunities for growth. Kanfer & Ackerman (2004) and De Lange et al. (2010) suggested that older workers who perceive that they have a positive career situation might decide that it is no longer necessary to pursue an increase in pay or promotion.

We also compared the models for the low and high identification group and found that the dimension rewards showed two different surfaces. For the low identification group the relationship was positive, meaning that the participants who did not identify themselves with the stereotype of being an older worker reported higher levels of intentions to participate in development activities as the absolute level of fulfilment increased. The high identification group had a negative relationship between levels of fulfilment and development activities. This suggests that participants who identified themselves stronger with the stereotype of being an older worker were less motivated to participate in development activities when they received higher levels of rewards. Higher levels of fulfilment might lead to these employees being satisfied with their accomplishments and thereby being less interested in participating in development activities (Van Vianen, 2007).

The other models for R1 and R2 regarding development activities showed similar results as the models for the entire sample concerning the levels of fulfilment. We hypothesized that there would be a negative relationship between levels of absolute fulfilment for rewards, social atmosphere, work-life balance and development activities for the people in the low identification group but this was not supported. As was stated in chapter three, older workers appear to have higher expectations on relational employer obligations (Kalleberg & Rognes, 2000) and attach more importance to work-life balance (Beehr & Bowling, 2002, Ng & Feldman, 2007) and rewards (e.g. Freese and Schalk, 1996, Schalk, 2004). It seems that the

high or low identification does not have an influence on the relationship between fulfilment on these dimensions and the willingness to participate in development activities.

Organizational policies did not have significant statistics, but it is noteworthy to mention that the effects for excess inducements that were discussed in the previous section seemed to be less distinct for the absolute levels of fulfilment. The levels of intentions stayed at almost the same levels from low delivered inducements to the highest level of inducements and the increase that was reported for excess inducements seems to be much steeper than the increase along the fulfilment line. This might suggest that the effects that were described before only applied when people in the high identification group perceived that delivered inducements exceeded what the employer was obligated to deliver.

4.4.1.3 Structural equation model

Apart from testing the joined effects of employer obligations and delivered inducements we also tested the separate structural models for both variables to establish what the different relationships between the variables in the research model would be if studied without the second set. When the entire structural model for employer obligations was tested the results were not as hypothesized (table 3.36). Instead of finding a significant positive relationship between social atmosphere, work-life balance, rewards and development activities there was a significant negative structural path for social atmosphere. Although the two other paths were positive in sign, only the path for rewards was significant.

The path for social atmosphere was opposite of what we had hypothesized. We found a negative relationship between the employer obligations regarding offering good working atmosphere and possibilities for good cooperation. The significant negative structural path also appeared in both the separate analyses for the low and high identification groups. A possible explanation could be that when employees perceive high levels of obligations on this dimension that the consequence is that there is less emphasis on the individuals' role. Less autonomy for the participant could lead to lower intentions of willingness to learn as an individual. De Lange et al. (2005) concluded that decision authority items such as the extent to which the participants could be autonomous in their work were positively related to intentions to participate in development. They found no significant differences between

younger and older employees, which might explain why both the R1 and R2 group reported similar structural paths.

After the initial test on the entire sample we examined the paths for the low and high identification group (table 3.37). The paths for the low identification group resembled those of the entire sample, but for the high identification group work-life balance was now significant, whereas rewards did no longer have a significant path. It is interesting to see that the employer obligations regarding rewards are more influential for participants who did not identify themselves with the stereotype of an older worker, whereas the people with a high identification reported more influence from work-life balance obligations on development activities. This finding regarding rewards was comparable to the findings for the absolute levels of fulfilment for rewards on development activities, where only the low identification group reported a positive relationship between fulfilment and the intention to participate in development activities.

A possible explanation for the positive relationship between work-life balance and development activities for the high identification group might be the function of different factors outside of work in regard to job satisfaction. Clark et al. (1996) suggested that older workers get higher satisfaction from factors outside of their work such as family which would mean that the more room there is for the items measuring work-life balance, the higher the influence on satisfaction from outside factors. Work-life balance was measured by the following items: (1) opportunity to schedule your own holidays, (2) working at home, (3) adjustment of working hours to fit personal life. If participants from the R2 group identified themselves with negative beliefs and stereotypes towards older employees (Gaillard & Desmette, 2010), then it would seem logical that they would be more sensitive for an outside source for satisfaction. More leeway on work-life balance items so that the participants could spend enough time on those important aspects of their lives might increase their overall satisfaction and lower the impact from less satisfaction with their jobs (Bal et al., 2008).

The full structural model was also run for the delivered inducements and we found a negative structural path for social atmosphere and rewards, and a positive path for work-life balance, although only the path for social atmosphere was significant. The results for the structural models for R1 and R2 (table 3.39) show that the structural path for social atmosphere stayed the same, but that rewards was positive for the R2 group while the

participants with low identification reported a negative relationship between delivered inducements regarding the dimension rewards and development activities. The paths for reward are interesting because they show differences between obligations and delivered inducements. Whereas rewards-related obligations were positive for both the R1 and R2 group, the delivered inducements were negative for the low identification group. It seems that the willingness to participate in development activities for the participants from the low identification group depended more on other the deliveries of challenging work and career opportunities than on the delivery of remuneration and benefits.

4.4.2 Mobility I

Mobility I measured the willingness of participants to change employers for (1) a job with more responsibilities, or (2) a promotion in the same job, both of which are generally perceived by employees as a promotion (West et al., 1990).

4.4.2.1 Deficient and excess inducements

Mobility I measured the intentions of participants to change employers for a job with more responsibilities. The findings were as hypothesized: participants were more willing to accept a job at another company in which they would have more responsibilities if they perceived their psychological contract to be under-fulfilled. This finding was not surprising as deficient inducements are often related to psychological contract violation (Turnley & Feldman, 2000) and this violation on psychological contract aspects can invoke strong feelings that can even lead to turnover (Schein, 1980). A job with more responsibilities is perceived as a promotion (West et al., 1990) and promotions are seen as moves that will increase status, rewards, etc. (Ng et al., 2007). It would therefore be possible that participants would be more willing to accept a job that would likely get them higher levels of inducements, at times that the organization delivered less than what they owed in the current job. The perceived outcome of the intended move would therefore be an increase in levels of delivered inducements.

In accordance with previous studies (Lambert et al., 2003, Irving & Montes, 2005, Maurer & Lippstreu, 2008, and Herrbach et al., 2009) over-fulfilment was positively related

to the willingness of moving away from the current job. Participants intended to accept a job with more responsibilities on certain dimensions. Excess inducements regarding receiving more feedback, open communication, and information (organizational policies) had a negative relationship with mobility I. Possibilities of having varied, challenging, and interesting work in which the participants had a variety of opportunities regarding their job and career (job content and career development) had a positive relationship. The explanation for the findings of other studies such as Lambert et al. (2003) was that over-fulfilment on dimensions that did not permit participants to realize a variety of other needs would have negative outcomes, like a drop in job satisfaction. As job content and career development represent items that will ask more investments from participants as their level increase, it seems that this will happen at the expense of the fulfilment of other needs. Therefore the increase in willingness to accept a promotion elsewhere might be a potential way out for participants, a way to change the current situation of over-investment on their part.

Organizational policies was negatively related to the willingness to accept mobility I. The difference in sign between job content and career development on one side, and organizational policies on the other might be explained by the function of the items that measure organizational policies. Whereas an increase of inducements past the obligated levels on the other two dimensions might mean that participants will have less time to realize other needs, this is not necessarily the case for organizational policies. The activities that make up the dimension organizational policies could be used to fulfil other, more general needs of the participant.

Excess inducements regarding increased feedback, open communication, and information might be very useful to the participant to realize potentially important needs, such as work-life balance. Participants would be able to close the gap between their actual and desired situation. If excess levels of organizational policies would mean that the participant would enjoy better communication, and as a result could address their specific needs, then they would seem to perceive a higher job satisfaction (Lambert et al., 2003). Satisfied employees who perceive little incongruence between the current and ideal job will be less willing to accept mobility opportunities (Noe et al, 1988).

4.4.2.2 Absolute levels of inducements

Except for the dimension work-life balance all other dimensions showed the hypothesized three-dimensional surfaces. The results of the different models confirm earlier findings that older workers who have a positive career situation do not necessarily pursue an increase in pay or promotion (e.g. De Lange et al., 2010). Work-life balance seemed to have almost no changes in mobility I intention levels along the fulfilment line, which would indicate that the absolute level of fulfilment on this dimension had little impact on the intentions to accept a job with more responsibilities. This was surprising as employees in their late career attach more meaning to work-life balance (Ng & Feldman, 2007). The three-dimensional surfaces for the low and high identification groups are slightly different from the model for the entire sample. However they do not show any real variations in intention levels along the fulfilment line. As the initial model both R1 and R2 have a positive relationship between deficient inducements and mobility I levels. We did not find an explanation why the fulfilment level for work-life balance has no real influence on mobility I intentions while deficient inducements are positively related.

4.4.3 Mobility II

Mobility II measured the willingness of participants to accept: (1) a job with fewer responsibilities at the current employer, (2) a job with fewer responsibilities at another employer, (3) a demotion at another employer.

4.4.3.1 Deficient and excess inducements

Deficient inducements had different effects on mobility II than hypothesized. All three-dimensional surfaces showed a levelling of or decline in intentions to accept a job with fewer responsibilities, indicating a negative relationship between the higher levels of deficient inducements and mobility II intentions. The surfaces for mobility I showed a clear positive relationship. The different findings for the two types of mobility suggest that participants were less motivated to accept a job with fewer responsibilities when they received the lowest levels of inducements compared to the perceived employer obligations. Previous research has concluded that accepting internal or external positions at a lower job level is the least

favourite mobility option (Eby & Dematteo, 2000, NG et al., 2007). But if it would just be the case that participants were less interested in this form of mobility intentions we would probably have seen a surface that was completely different from the three-dimensional surfaces for mobility I. However this was not the case. The surfaces for mobility II showed a similar effect for deficient inducements that only started levelling out or dropping towards the highest levels of deficient inducements.

The surfaces suggest that participants were more willing to accept a job with fewer responsibilities when inducements were declining against the obligations, but that at a certain moment the under-fulfilment reaches a point that marked the start of a drop in intentions to accept the job change. A downward move involves a drop in status and often results in reduced opportunities for growth and development (West et al., 1990). A possible explanation for this change in mobility II intentions might be that from the tipping point onwards the participants were no longer willing to accept an additional drop in job status and inducements. West et al. (1990) explain how downward moves can be used by organizations as an option for several HR-related decisions, such as not terminating contracts but offering an alternative position or trying to re-motivate otherwise immobile managers. They add that these moves do not necessarily involve the loss of material benefits. Josten & Schalk (2005) reported that 63% of Dutch employees kept their salary after a downward move.

It is also possible that the tipping point was the moment that participants no longer wanted to accept a downward move for an employer that clearly breached their psychological contract. Psychological contract breach was found to be negatively related to trust (Bal et al. (2008). It is therefore plausible that participants lost trust in a good outcome of a potential downward move after a certain extent of perceived breach and therefore reported a lower intention for the higher levels of deficient inducements.

Excess inducement had different results on mobility II than the other two dependent variables. All dimensions had lower levels of intentions on the excess side of the breach line. This might be explained by the idea that people do not want to give up a certain position or situation (e.g. Kanfer & Ackerman, 2004). The higher the excess on inducements, the more people received from their employer. Getting more than one expects from their employer might therefore be a reason not to accept mobility propositions that are going to result in a potential loss of inducements, or put in another way, worse situation for the employee.

4.4.3.2 Absolute levels of inducements

The findings for absolute levels of fulfilment were that the intentions for mobility II dropped for all dimensions as absolute levels of fulfilment increased, although the surfaces for social atmosphere and work-life balance showed less variation in the levels of intentions along the fulfilment line. The increase in intentions until the breach line is interesting because it indicates that participants were more inclined to accept a job with fewer responsibilities up to the point where fulfilment was perceived. After this point they were less and less motivated to accept these changes. It is therefore reasonable to assume that participants were willing to accept a job with fewer responsibilities until they perceived a sufficient level of fulfilment, from which point they started reporting lower motivation for the same change.

As was the case for mobility I, work-life balance seemed to show few changes in mobility II intention levels along the fulfilment line. This seems to indicate that the absolute level of fulfilment on this dimension had little impact on the intentions to accept a demotion. Unfortunately we have no explanation as to why there was such little impact from a dimension that is thought to be important for older employees. A qualitative follow-up study might have been able to identify reasons for the current findings. The different structures for work-life balance and social atmosphere might be explained by the surfaces of their respected sub-groups on identification. We examined the models for the R1 and R2 group in order to see if there were any differences on the dimension work-life balance.

Results for the high identification group showed opposite results from models for the low identification group on the dimensions social atmosphere and work-life balance. The levels of mobility II intentions followed the absolute levels of fulfilment for the R2 group whereas the R1 group reported a negative relationship. This was surprising because we had hypothesized a positive relationship between levels of absolute fulfilment for social atmosphere, work-life balance and mobility II intentions for the R1 group. Although the work-life model for the R2 group was not significant, the four models together show that there is a difference between these groups. It could be that high levels of fulfilment on two dimensions that have been found important for older workers (e.g. Kalleberg & Rognes, 2000, Beehr & Bowling, 2002) result in higher trust by participants in the R2 group in a good

outcome of a potential downward move within the same company, but that still leaves the question regarding other employers unanswered.

4.4.4 Psychological contract violation

4.4.4.1 Deficient and excess inducements

Most studies that mention contract violation reported by older workers compare findings or suggestions regarding perceived psychological contract violation between different age groups (e.g. Freese & Schalk, 1995, Farr & Ringseis, 2002, Bordia et al., 2008, Ng and Feldman, 2008). As was explained in paragraph 1.5 there is not a lot of research on psychological contract violation and older workers. This study only examined participants in the ages of 45-55. We wanted to establish if deficient and excess inducements regarding certain employer obligations of the psychological contract would have unique relationships with perceived contract violation. Confirming the results reported by previous studies (Zhao et al., 2007, Bal et al., 2008) breach in the form of deficient inducements was positively related to perceived psychological contract violation. All six models showed that deficient inducements were positively related with contract violation.

However, perceived breach of the psychological contract can also occur in cases of over-fulfilment, when these levels of inducements are perceived by the employee as requiring too much time and/or effort, which will in turn interfere with the fulfilments of other needs and desires (Lambert et al., 2003). We therefore hypothesized that excess inducements on the dimensions job content, career development, and organizational policies would be positively related to perceived psychological contract violation, because excess levels of inducements on all three dimensions would ask more investments from the employee. Contrary to what we hypothesized regarding over-fulfilment, there was no positive relationship for excess inducements for these three dimensions.

When we ran the models again for the low and high identification groups, similar results were found. The only dimensions that showed a different surface was work-life balance, which reported a negative relationship between excess inducements for the low identification group and a positive sign for the same relationship for the high identification group (table 3.22).

4.4.4.2 Absolute levels of inducements

The absolute levels of fulfilment were negatively related to perceived psychological contract violation. These findings confirm previous findings (Lambert et al., 2003, Irving & Montes, 2005). What is interesting is that all dimensions show almost identical three-dimensional surfaces. Several authors have mentioned that older workers would be sensitive on specific aspects of the psychological contract. According to Freese and Schalk (1995), older employees have higher expectations regarding responsibilities, possibilities to be in a managerial position, salary and security. This suggests that these specific dimensions are more likely to have a negative relationship between fulfilment levels and perceived contract violation.

Turnley and Feldman (1999a) have suggested that psychological contract breach of obligations that are related to job security will likely lead to a perception of contract violation for older employees. This would suggest that the three-dimensional surfaces from the polynomial analyses show different patterns according to the contract dimension that was examined. Our models (table 3.16) show however that both low fulfilment levels and high levels of deficient inducements are related with higher reported levels of perceived psychological contract violation on all six content dimensions. The fulfilment levels show the same results for the two identification groups indicating that low or high stereotype identification has no influence on the relationship between absolute levels of fulfilment and perceived contract violation.

4.4.5 General discussion

The findings of this study indicate that there is a difference between the low and high identification groups for a number of relationships that were identified in the research model. The three-dimensional surface for the polynomial regression analysis on development activities shows that only participants in the low identification group reported higher levels of intentions to participate in development activities as the absolute level of fulfilment increased, whereas participants from the high identification group reported a negative relationship. The structural equation model for both groups indicated that the structural paths for the obligation rewards both have a positive sign, while only the low identification group reported a positive

relationship between delivered inducements and the intention to participate in development activities.

We had expected to see more differences in the three-dimensional surfaces between the low and high identification groups for development activities. According to Bargh (1999) stereotypical views can become so familiar that they are perceived as representative for a specific group. Age stereotypes can therefore influence the perceptions of older workers (e.g. Noe et al., 1997, Van Dam et al., 2006, Maurer, 2001). An example is the perceived self-efficacy for learning and development (Maurer, 2001). A specific group will use the terms of the categorization that was given to their group when they think of themselves (Schmitt et al., 2003). This means that older workers can show behavior that is aligned with the views that current stereotypes have assigned to their social group. Previous research concluded that older employees who perceived that older workers do not have the ability to develop themselves were less interested in participating in development activities (Maurer et al., 2007). Higher identification with this group would therefore suggest different patterns in the three-dimensional surfaces in tables 3.23 and 3.24 for the high and low identification groups.

For the four models with significant statistics for both R1 and R2, we found differences for job content and rewards. Although both reported higher levels of development intentions along the fulfilment line, the three-dimensional surfaces for job content showed a positive relationship between excess inducements and development intentions for the low identification group and a negative relationship for the high identification group.

The results from the structural equation models showed a difference between the structural paths for delivered inducements when comparing the R1 and R2 groups. The structural paths for job content and career development were significant and positive for the low identification group but not significant for the high identification group. De Lange et al. (2005) suggested that older workers need a challenging environment in order to be motivated to develop themselves. Besides a more challenging job we can also look at inducements as being deficient, fulfilled, or in excess of obligated levels. We had hypothesized that excess inducements on job content and career development would likely lead to more investment in development activities because it would allow participants to change their job or position.

Since identifying with popular beliefs and stereotypes regarding one's social group can result in starting to produce the projected traits (Schmitt et al., 2003) these findings might be explained by the extent to which participants identified with negative ideas surrounding their social group. If the participants adopts behavior to for instance a stereotypical belief like having no motivation and/or ability to change with the times (e.g. Rosen & Jerdee, 1976a, Maurer et al., 2003), then it would seem plausible that an increase in delivered inducements on the dimensions job content and career development might result in a feeling of being overwhelmed (Irving & Montes, 2009). Related to the feeling of being overwhelmed we can also refer to the concept of learning self-efficacy (Maurer, 2001).

Older workers are more likely to select certain development activities based on this confidence or self-efficacy (Kanfer & Ackerman, 2004). It is therefore likely that the more participants identified with the stereotype of being an older worker, the less willing they were to participate in development activities. This might have led to lower intentions to participate in development activities by the high identification group.

For the dependent variables mobility I and II the differences indicate that people seem to want to give up a good situation if they think that it will get them more, but that they are unwilling when the result would be a job with less responsibilities. The findings for mobility I were more representative of the hypotheses defined in chapter three than the findings for mobility II. Examination of the three-dimensional surfaces for mobility II showed differences between the R1 and R2 groups. The dimensions social atmosphere and work-life balance had almost opposite results in that high absolute levels of fulfilment lead to higher intentions to accept a job with fewer responsibilities for people in the high identification group whereas we hypothesized that this would be the result for the low identification group.

4.5 Limitations of this study

As is the case with all research, this study has several limitations. The first limitation is the representativeness of the sample, which consisted of participants, aged 45-55 with a minimum of intermediate vocational education. The majority of the sample (79,9%) had what can be considered a higher degree at either a higher vocational education level (54,5%), or a University education degree (25,4%). According to the figures of the Dutch statistics agency

(Statline, 2013) around 27% of the active working population between the ages of 45-55 obtained a Bachelor, Masters, or Doctorate degree. This means that it is difficult to generalize any findings of this study towards the wider working population. The choice for this sample was deliberate however. As was explained in chapter 3 the criteria of degrees was adopted in order to aim that part of the active working population that would be more likely to follow development activities and to have more options as to mobility opportunities. The criteria for degrees would not have been chosen with dependent variables such as job satisfaction, absenteeism, or participation in team processes.

The cross-sectional research design of this study is a second limitation, as it does not permit for causal direction in the relationships between dependent and independent variables to be confirmed (e.g. De Cuyper et al., 2008). Instead of measuring actual decisions after a certain amount of time since the first measurement, we could only measure intentions regarding future decisions. Measuring the independent and dependent variables at the same time can also lead to an increase in common method biases as it could potentially result in artificial covariance independent of the content of the different scales (Podsakoff et al., 2003).

Although a longitudinal research design is expected to lead to a reduced influence of common method bias, it is unlikely to eliminate this influence entirely (Coyle-Shapiro & Conway, 2005). If there had not been any restrictions from a number of companies in the preparation phase of this study regarding the gathering of the data, the design would have been longitudinal. It became clear at a very early stage however that the companies that were contacted did not want to opt for data collection at different times. Therefore the research design was cross-sectional.

A third limitation of this study is the use of a self-report questionnaire as the relationships between variables measured by these measures are frequently considered as being necessarily and routinely upwardly biased (Conway & Lance, 2010). Podsakoff et al. (2003) proposed a number of procedural remedies for better control of method variance. Some of these remedies, such as obtaining measures for dependent and independent variables from different sources, were not a solution for this study because we measured individual beliefs that only exist 'in the eye of the beholder' (Rousseau, 1989). The psychological contract is by definition an individual perception (Freese & Schalk, 2008) and the same can be said for both the identification with the stereotype of being an older worker and the

intentions regarding future career related decisions. It was therefore not possible to collect data from different sources.

Other procedural remedies proposed by Podsakoff et al. (2003) were adapted, such as the use of separate scales for the different groups of variables, the protection of anonymity of participants, and the reduction of evaluation apprehension by explaining that there were no right or wrong answers and that respondents should try to answer spontaneously and honestly to the questions. Podsakoff and his colleagues also proposed potential statistical remedies, but in accordance with the recommendations by Conway & Lance (2010) no post hoc statistical corrections procedures were performed.

Besides the procedural remedies and explanation for the rationale behind opting for a self-report measure, Conway & Lance proposed two additional points that reviewers can expect from researchers when assessing common method bias: ‘construct validity evidence’ and ‘lack of overlap in items for different constructs’. The different analyses that were presented in chapter 3 show adequate construct validity. The scales showed good reliability scores and both measurement and structural models had fit indices that indicated a good fit. The dropping of items in order to avoid a conceptual overlap and potential contrast and assimilation effects, was described in paragraph 3.3.

Besides the before mentioned limitations regarding the sample and research tools, there was another contextual limitation that can potentially have lead to a distortion of answers: the economic crisis. It is not unlikely that the negative economic situation at the time of data collection might have had a certain impact on the responses by the participants. Times of economic crisis might slightly skew the data, as people might be more reluctant to leave a stable situation for a change in job or employer (NG et al., 2007, Lub et al., 2011).

4.6 Suggestions for future research and practice

4.6.1 Implications for future studies

While examining the three-dimensional surfaces of mobility II we found a negative relationship between the higher levels of deficient inducements and the intention to accept a

job with fewer responsibilities with the current employer. As this study was a cross-sectional quantitative study it was not possible to examine the dynamics of this change in surfaces towards the high end of the breach line. A qualitative study aimed at the relationship between deficient inducements and the intention to accept a downward mobility option might shed some light at this change to an otherwise positive relationship between the two variables. Interviews with managers in the same age group as this study's sample might possibly be the right tool to identify the reasons why older workers report a decrease in intentions to accept demotion within the same company past a certain point on the breach line.

Qualitative research could also shed some light on the influence of work-life balance on the intentions to accept a promotion with another employer. The absolute level of fulfilment on work-life balance doesn't seem to have a big impact on the intention to accept a promotion or demotion. It was the only dimension not to have a decline along the fulfilment line for mobility I. This was surprising as employees in their late career attach more meaning to work-life balance (Ng & Feldman, 2007). When looking at the deficient and excess fulfilment of the obligations we see that there is a distinctive positive relationship between under-fulfilment of work-life balance obligations and mobility I intentions.

The three-dimensional surfaces for the low and high identification groups are slightly different from the model for the entire sample, but do share the two characteristics of the first model, no real variations in intention levels along the fulfilment line, and positive relationship between deficient inducements and mobility I levels. Future qualitative research might help explain why this dimension has a clear and positive relationship on mobility I intentions when the participant perceived under-fulfilment, but no clear positive or negative relationship when absolute levels of fulfilment increase.

A longitudinal research design might be very interesting in establishing the actual participation in development activities or decisions taken. As was explained previously it was not possible to operationalize this study other than by using a cross sectional approach. If time and resources would permit a longitudinal study, different types of dependent variables could be examined. Another advantage of having more time to collect data is the possibility of studying the issues surrounding stereotypes regarding older workers through different angles. It might be possible to conceptualize by using LMX instead of psychological contracts, and to study a set of dyads of managers and older employees, in order to establish if these

stereotypes are shared between the organizations representative and the subordinate. This would allow incorporating different levels of moderating variables (employee, managers, or company).

Besides longitudinal studies, cross sectional follow up studies might involve different dependent variables. The problems encountered with the scales for mobility I and II suggest that it might be an option to identify different items measuring mobility options through a series of interviews, followed by a larger pilot test. This mixed-method approach would normally result in scales that will pose fewer problems during the data analysis.

4.6.2 *Managerial implications*

The literature review for this study sheds some light on the aspects of HR policy that might be influential for older workers. Although social atmosphere, work-life balance, and rewards were identified with the help of the literature, the findings of this study suggest that all six dimensions of the psychological contract are relevant for perceived contract violation.

Furthermore, when obligations were studied in a structural equation model, job content was positively and significantly related to development activities. The SEM for delivered inducements found that two different dimensions (job content and career development) had a significant and positive relationship with the intentions to participate in development activities for the participants that reported low identification with the stereotype of being an older worker. These findings suggest that employers should not focus too much on specific HR practices that are generally thought to be relevant to older workers, as other practices might be important tools in motivating this group of employees.

Although there are many stereotypical beliefs about older workers that might give the impression that the individual members of this group are very much alike, it is in fact a group that shows a wide variety (Baltes et al., 1980) regarding issues such as health and employability (Peeters et al., 2005). The specific group also has a greater variety in career-related options than younger employees (Ulrich & Brott, 2005). And finally a part of the employees that are labeled as older employees do not identify themselves with the social group of older workers. Treating these people the same way as the members of the social

group of older workers might even lead to individual or collective coping strategies (Tajfel & Turner, 1986). The consequence for employers is that they will have to aim for a more individualized set of HR practices.

The findings of this study confirm a variety in content dimensions with significant relationships that is not limited to the dimensions that are commonly identified for this group of employees. Management should therefore invest time and effort in the identification of relevant HR practices for the older employees in their organizational context instead of copying a set of best practices from another company or sector.

Regarding non-fulfillment of the psychological contract obligations, this study confirms previous findings that breach, in the form of deficient inducements, has negative outcomes, such as higher perceived levels of psychological contract violation, higher levels of intentions of leaving the company for a job with more responsibilities elsewhere, and lower intentions of accepting a demotion. Employers should therefore be careful not to create perceived obligations that cannot be met later on. Psychological contract breach and violation can have negative outcomes such as a decline in affective wellbeing and job satisfaction (Conway et al., 2011).

Older employees have been found to have a higher level of tolerance for psychological contract breach and a higher level of continuance commitment than younger employees (Bal et al., 2008) suggesting that they are less likely to leave the company in the event of perceived breach. Possible reasons for this higher continuance commitment are a lack of mobility alternatives and the potentially high sacrifices involved in changing jobs (Cassar & Briner, 2011). In the current economic climate in the Netherlands it is likely that there are fewer mobility alternatives.

Employers should not perceive this expected higher continuance commitment as a reason not deliver on their obligations as older workers have reported a bigger drop in job satisfaction and affective commitment after breach (Bal et al., 2008). The results of this study show less willingness to accept a demotion and higher intentions of accepting a promotion elsewhere, suggesting that employees that can move elsewhere are more willing to leave the company. As employees that have more mobility options are likely to be employees with a

specific and valuable skillset, companies should be aware of the consequences of these people leaving.

Suggestions that low obligations will permit the employer to deliver accordingly without older employees perceiving psychological contract breach and/or violation seem to be incorrect. Besides the balance in between employer and employee obligations, the level itself of this fulfillment is also important (Shore & Barksdale, 1998). In another article Lambert et al. (2003) reported that employees with higher absolute levels of fulfillment were more satisfied than those employees who indicated lower levels of absolute fulfillment. In this study we also found a discrepancy between low and high absolute levels of fulfillment. Our findings show that low absolute levels of fulfilment are the second most important cause for perceived contract violation, after high levels of deficient inducements.

Low absolute levels of fulfilment also reported the lowest levels of development intentions, higher levels of intentions to accept a promotion elsewhere, and lower levels of intentions to accept a demotion. The mid-level range of absolute fulfilment seems to have high levels for all intentions. High fulfilment levels reported low contract violation, higher development intentions, and lower mobility intentions.

We would suggest managers to be careful not to create a context in which obligations and/or delivered inducements are kept low intentionally in order to avoid having to invest in the group of older employees as low levels of fulfilment and excess inducements do not seem to have any positive effects. Instead, employers should aim for mid- to high-level fulfillment. A more individualized approach to HR might also lead to a more accurate assessment of what would constitute as an appropriate level of fulfillment for specific inducements.

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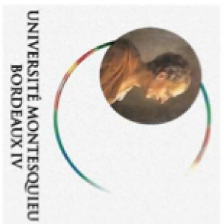
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Survey Career intentions

This is a study concerning the career intentions of employees, active on the Dutch labor market between the ages of 45 and 55.

Additional information concerning the Survey

On the following pages you will find the survey for this study. The survey consists of four parts. These are:

- 1) Your expectations regarding your employer
- 2) Your contributions to your organization
- 3) Your personal career intentions
- 4) A general section.

Each part of the survey starts with a brief explanation. Please make sure to answer each question as spontaneously as possible. Except an occasional question where you are asked to give in a number, all questions in this survey are multiple-choice.

The estimated time for completing this survey is about 15 minutes.

Participation in this survey is **confidential** and **anonymous**. The study is designed in such a way that the author is the only person who will be able to see the individual answers. The results will only be used in the form of a synthesis for scientific publications. If you want to read the results of this survey, you can provide your email address at the end of the survey.

If you have any questions, you can contact me by phone or by mail:

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Appendix 1 Questionnaire

Thank you for your participation

Part 1. Your expectations regarding your employer

Column (1) To what extent is your organization obliged to offer you the following? In your employment relationship you have expectations about what the organization will offer. We can group these expectations around certain themes. Below, you will find six themes, each with a number of specific expectations. Because these expectations are often based on implicit promises by the organization, we can also use the term obligations.

Column (2) To what extent has the organisation met these obligations? The organization can meet obligations to a great extent, partially or not at all. In the second column you can evaluate to what extent your organization has met the obligations.

	1) To what extent is your organization obliged to offer you the following?					2) To what extent has the organisation met these obligations?				
	not at all	slightly	some-what	mostly	to a great extent	not at all	slightly	some-what	mostly	to a great extent
1) Job content										
1 Variation in your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Challenging work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Balanced workload	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Interesting work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Autonomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 The opportunity to deliver quality goods/services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Career Development										
1 Career opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Training and education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Coaching on the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Professional development opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Learning on the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Opportunities to fully utilize knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	1) To what extent is your organization obliged to offer you the following?						2) To what extent has the organisation met these obligations?				
	not at all	slightly	some-what	mostly	to a great extent		not at all	slightly	some-what	mostly	to a great extent
3) Social Atmosphere											
1 Good working atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Offer possibilities for good cooperation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Appreciation and recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Support from supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4) Organizational Policies											
1 Participation in important decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 A fair supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Feedback on performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Clear and fair rules and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5 Keeping you informed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6 Open communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7 Ethical policies concerning society and environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5) Work-life balance											
1 Consideration of personal circumstances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Opportunity to schedule your own holidays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Working at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Adjustment of working hours to fit personal life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	1) To what extent is your organization obliged to offer you the following?					2) To what extent has the organisation met these obligations?				
	not at all	slightly	some-what	mostly	to a great extent	not at all	slightly	some-what	mostly	to a great extent
6) Rewards										
1 Employment security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Appropriate salary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Rewards for exceptional performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Reimbursement of training costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Good benefits package	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Performance-based pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Consider the extent to which your organization has lived up to its obligations.

To what extent do you agree with the following statements?

I feel:	Don't agree at all	Don't agree	Neutral	Agree	Agree to great extent
1 A great deal of anger towards my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Betrayed by my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 That my organization has violated its obligations towards me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Extremely frustrated by how I have been treated by my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 2. Your contribution to your organization

Column (1) To what extent do you feel obliged to offer your organization the following? In the employment relationship you have opinions on what you should offer the organization. In the first part of the survey we asked you about the obligations that the organization has towards you. Here we ask the opposite, the things that you feel obligated to offer or contribute to your organization.

Column (2) To what extent did you fulfil your obligations? The organization can meet obligations to a great extent, partially or not at all. The same can apply to you. That is why we ask you to what extent you fulfilled your obligations towards your organization in the second column.

	1) To what extent do you feel obliged to offer your organization the following?						2) To what extent did you fulfill your obligations?				
	not at all	slightly	some-what	mostly	to a great extent		not at all	slightly	some-what	mostly	to a great extent
1 Good cooperation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Helping colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Provide good service to customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Performing well on tasks you do not like	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Integrity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Dedication to your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Being cost-conscious when dealing with organizational properties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Dealing with private matters at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Complying with organizational rules and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Protect the organization's image	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Contributing to a pleasant working atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Keeping knowledge and skills up to date to be able to deal with changing requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Making suggestions for improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Volunteering to do additional tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Working over time if that is necessary to get the job done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 3. Your career intentions

In this part we ask you several questions concerning your career intentions. Below you will find a number of statements. Please indicate to what extent you agree with these.

To what extent would you accept the following career options if they were to you offered tomorrow?	not at all	slightly	some-what	mostly	to a great extent
1 Another job with more responsibilities at your current employer	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2 Changing employers for another job with more responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 A promotion within the same job at your current employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Changing employers in order to get a promotion in the same job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Another job at the same hierarchical level at your current employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 To change employers for another job same hierarchical level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Another job with fewer responsibilities within your organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Changing employers for another job with fewer responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 A demotion within the same job at your current employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Changing employers in order to get a demotion in the same job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you planning to undertake the following in 2010?					
1 I will ask my manager for feedback on my job-related behaviors, performance and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I am going to make an overview of my strengths and weaknesses in my job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 I will actively participate in development activities for my current job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I will enroll in a college/university course or program in order to obtain a qualification that is relevant to my career	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 I intend discussing my personal development and career with my manager during a formal meeting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 I will subscribe to job sites in order to assess my possibilities on the labor market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent can you identify with the following propositions?		not at all	slightly	some-what	mostly	to a great extent
		1	2	3	4	5
1	I see myself as an older worker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I have a lot in common with other older workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I see myself as belonging to the older workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 4. General section

1. In what year were you born? 19
2. What is the highest level of education you have completed? Intermediate Vocational Education Higher Vocational Education University Education
3. What is your gender? Man Woman
4. What is your family situation? Single Married/living together
5. How long have you been working for your employer? Years
6. And at your current position? Years
7. What economic activity applies to your organization?

<input type="checkbox"/> Agriculture and Fishing	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Building/Construction	<input type="checkbox"/> Healthcare
<input type="checkbox"/> Food/drink Industry	<input type="checkbox"/> Financial intermediation and insurance	<input type="checkbox"/> Transport and Logistics	<input type="checkbox"/> Public Administration
<input type="checkbox"/> Education/Science	<input type="checkbox"/> Communication, Sales and Marketing	<input type="checkbox"/> Tourism/Leisure/Entertainment	<input type="checkbox"/> Whole sale and Retail
<input type="checkbox"/> Financial Services	<input type="checkbox"/> Miscellaneous services	<input type="checkbox"/> IT	<input type="checkbox"/> Other
8. How many employees does your organization have? Less than 50 Between 50 and 500 More than 500
9. What is your current job-level? Operational Middle management Higher management
10. How many hours do you work according to your contract? Hours per week
11. At what age do you think you will stop working?

12. In which job category are you currently working?

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Admin, Secretarial & PA | <input type="checkbox"/> Strategy & Consultancy | <input type="checkbox"/> Recruitment Consultancy | <input type="checkbox"/> IT/Internet |
| <input type="checkbox"/> Security/Police/Military | <input type="checkbox"/> Call centre/Reception | <input type="checkbox"/> Commercial/Sales | <input type="checkbox"/> Management & Executive |
| <input type="checkbox"/> Financial | <input type="checkbox"/> Hospitality/Catering/Retail | <input type="checkbox"/> Purchasing/Logistics | <input type="checkbox"/> Legal/ governing |
| <input type="checkbox"/> Marketing/P R/Advertising | <input type="checkbox"/> Education/Research | <input type="checkbox"/> HR/Training | <input type="checkbox"/> Medical and Healthcare |
| <input type="checkbox"/> Production | <input type="checkbox"/> Technical | <input type="checkbox"/> Other | |

13. Are you a member of a union? Yes No



End of the survey

Would you be willing to participate in a follow-up survey at a later date

- Yes No

Do you want to be informed about the results of this study?

- Yes No

If yes, please provide your email address:

Thank you for your participation in this survey

Appendix 2 Exploratory and confirmatory factor analysis

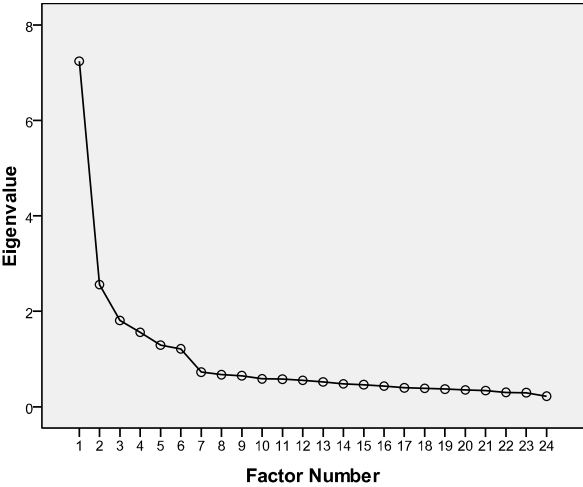


Figure A2.1 Scree Plot for employer obligations

<i>Factor</i>	<i>% of variance explained</i>	<i>Cumulative %</i>
1 Organizational policies	28.286%	28.286%
2 Career development	8.898%	37.184%
3 Job content	5.664%	42.848%
4 Work-life balance	4.899%	47.746%
5 Rewards	3.928%	51.674%
6 Social Atmosphere	3.368%	55.042%

Table A2.2 Total variance employer obligations explained

<i>Factor</i>	<i>cont</i>	<i>cardv</i>	<i>satm</i>	<i>orgpl</i>	<i>wlbl</i>	<i>rew</i>
<i>cont</i>	1					
<i>cardv</i>	.550	1				
<i>satm</i>	.208	.393	1			
<i>orgpl</i>	.345	.323	.333	1		
<i>wlbl</i>	.528	.504	.318	.400	1	
<i>rew</i>	.420	.323	.306	.264	.319	1

Table A2.3 Factor Correlation Matrix

	Factor					
	1	2	3	4	5	6
Variation in work			,836			
Challenging work			,788			
Interesting work			,799			
Autonomy			,589			
Career opportunities		,643				
Training and education		,757				
Coaching on the job		,644				
Professional dev opportunities		,803				
Learning on the job		,629				
Opport. utilize knowl. & skills		,558				
Good working atmosphere						,841
Offer possibilities for good cooperation						,886
A fair supervisor	,748					
Feedback on performance	,659					
Clear & fair rules & regulations	,794					
Keeping you informed	,725					
Open communication	,763					
Ethical policies	,605					
Opportunity schedule holidays				,550		
Working at home				,697		
Adjust. hrs to fit persn. life				,875		
Appropriate salary					,514	
Reimbursement of training costs					,665	
Good benefits package					,890	

Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization.

?

Table A2.4 Pattern Matrix employer obligations with factor loadings > 0.5

<i>Item</i>	<i>Communalities</i>			<i>Item</i>	<i>Communalities</i>	
	<i>Initial</i>	<i>Extraction</i>			<i>Initial</i>	<i>Extraction</i>
Variation in work	0.574	0.687		A fair supervisor	0.503	0.546
Challenging work	0.515	0.601		Feedback on performance	0.466	0.501
Interesting work	0.538	0.646		Clear & fair rules & regulations	0.478	0.535
Autonomy	0.334	0.372		Keeping you informed	0.543	0.559
Career opportunities	0.428	0.456		Open communication	0.584	0.629
Training and education	0.491	0.570		Ethical policies	0.369	0.393
Coaching on the job	0.355	0.405		Opportunity to schedule holidays	0.327	0.383
Professional develop. opportunities	0.502	0.601		Working at home	0.400	0.498
Learning on the job	0.405	0.441		Adjust. hours to fit personal life	0.451	0.704
Opportunity to utilize knowledge & skills	0.435	0.453		Appropriate salary	0.448	0.491
Good working atmosphere	0.589	0.711		Reimbursement of training costs	0.423	0.496
Offer possibilities for good cooperation	0.603	0.795		Good benefits package	0.495	0.736
<i>Extraction method: Principal Axis Factoring</i>						

Table A2.5 Communalities of the variables making up the employer obligations

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Variation in your work	.836	.687
Challenging work	.788	.601
Interesting work	.799	.646
Autonomy	.589	.372
<i>Cronbach's Alpha: .833</i>		

Table A2.6 Factor loadings and communalities of the items measuring the factor job content

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Career opportunities	.643	.456
Training and education	.757	.570
Coaching on the job	.644	.405
Professional development opportunities	.803	.601
Learning on the job	.629	.441
Opportunities to fully utilize knowledge and skills	.558	.453
<i>Cronbach's Alpha: .844</i>		

Table A2.7 Factor loadings and communalities of the items measuring the factor career development

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
A fair supervisor	.748	.546
Feedback on performance	.659	.501
Clear and fair rules and regulations	.794	.535
Keeping you informed	.725	.559
Open communication	.763	.629
Ethical policies concerning society and environment	.605	.393
<i>Cronbach's Alpha: .867</i>		

Table A2.8 Factor loadings and communalities of the items measuring the factor organizational policies

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Good working atmosphere	.841	.711
Offer possibilities for good cooperation	.886	.795
<i>Cronbach's Alpha: .861</i>		

Table A2.9 Factor loadings and communalities of the items measuring the factor social atmosphere

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Opportunity to schedule your own holidays	.550	.383
Working at home	.697	.498
Adjustment of working hours to fit personal life	.875	.704
<i>Cronbach's Alpha: .742</i>		

Table A2.10 Factor loadings and communalities of the items measuring the factor work-life balance

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Appropriate salary	.514	.491
Reimbursement of training costs	.665	.496
Good benefits package	.890	.736
<i>Cronbach's Alpha: .771</i>		

Table A2.11 Factor loadings and communalities of the items measuring the factor rewards

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Good cooperation	.612	.375
Helping colleagues	.672	.452
Provide good service to customers	.601	.361
Integrity	.562	.316
Dedication to your work	.668	.446
Being cost-conscious with org properties	.554	.307
Contributing to pleasant work atmosphere	.611	.373
<i>Cronbach's Alpha .807</i>		

Table A2.12 Factor loadings and communalities of the items measuring employee obligations

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
A great deal of anger towards my organization	.876	.768
Betrayed by my organization	.923	.851
That my organization has violated its obligations	.902	.813
Extremely frustrated by how I have been treated by my organization	.907	.822
<i>Cronbach's Alpha: .945</i>		

Table A2.13 Factor loadings and communalities of the items measuring violation

<i>Item</i>	<i>Factor loading</i>	<i>Communalities</i>
Ask manager for feedback job-related behaviors, perform and skills	.724	.525
Make an overview of my strengths and weaknesses in my job	.666	.444
Actively participate in development activities for my current job	.617	.381
Discussing personal development & career with my manager	.675	.451
<i>Cronbach's Alpha: .764</i>		

Table A2.14 Factor loadings and communalities of the items measuring development activities.

Items Mob I	Factor loading	Communalities
Another job with more responsibilities at your current employer	.542	.285
Changing employers for another job with more responsibilities	.948	.903
Changing employers in order to get a promotion in the same job	.713	.518
<i>Cronbach's Alpha: .765</i>		
Item Mob II	Factor loading	Communalities
Another job with fewer responsibilities within your organization	.724	.512
Changing employers for another job with fewer responsibilities	.826	.689
A demotion within the same job at you current employer	.591	.338
Changing employers in order to get a demotion in the same job	.699	.511
<i>Cronbach's Alpha: .799</i>		

Table A2.15 Factor loadings and communalities for items measuring mobility I and II

Item	Factor loading	Communalities
I see myself as an older worker	.809	.654
I have a lot in common with other older workers	.714	.509
I see myself as belonging to the older workers	.747	.558
<i>Cronbach's Alpha: .796</i>		

Table A2.16 Factor loadings and communalities of the items measuring stereotype.

Factor	<i>F1 cont</i>	<i>F2 cardv</i>	<i>F3 satm</i>	<i>F4 orgpl</i>	<i>F5 wlbl</i>	<i>F6 rew</i>
<i>F1 cont</i>	1					
<i>F2 cardv</i>	.411	1				
<i>F3 satm</i>	.292	.345	1			
<i>F4 orgpl</i>	.186	.559	.433	1		
<i>F5 wlbl</i>	.302	.317	.266	.330	1	
<i>F6 rew</i>	.319	.544	.362	.591	.413	1

Table A2.17 Correlations between the latent variables of the psychological contract

	<i>Standardized solution</i>	<i>R-squared</i>
Inrole_1	.660 F1 + .751 E	.436
Inrole_2	.741*F1 + .672 E	.549
Inrole_6	.587*F1 + .810 E	.345
Inrole_11	.630*F1 + .777 E	.397

Table A2.18 standardized solution and R-squared values for the factor employee obligations

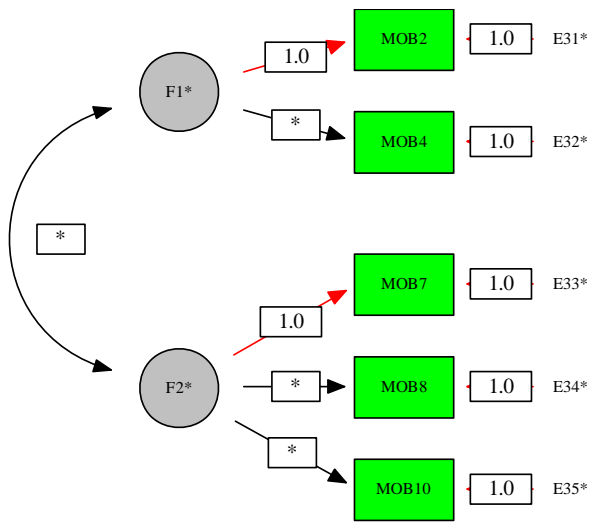


Figure A2.19 CFA structure for Mobility I and II

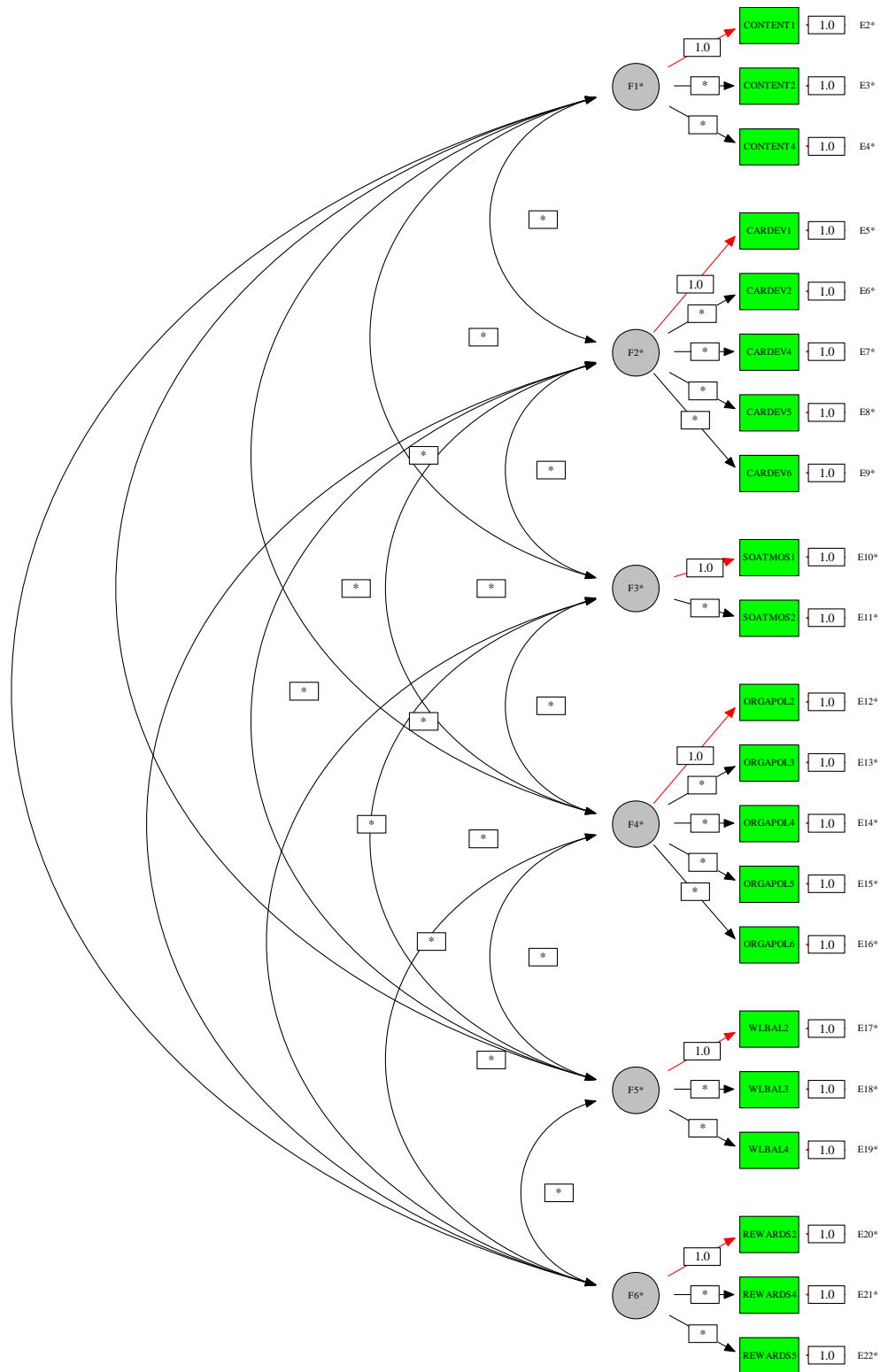


Figure A2.20 6-factor CFA structure for final employer obligations

Résumé

Comme d'autres pays de l'Europe de l'Ouest, les Pays Bas ont été témoins d'une hausse de l'âge moyen de sa population active. Depuis quelques années, ces changements ont incité le gouvernement Néerlandais à revoir l'imposition sur les plans de préretraite dans le privé et à repousser l'âge légal de départ à la retraite. En même temps, les entreprises demandent aux employés d'être de plus en plus employables pour pouvoir compenser la perte de sécurité de l'emploi à vie. Bien qu'il y ait beaucoup de stéréotypes sur les motivation et capacité des travailleurs seniors, ces employés vont devoir travailler plus longtemps et sont plus susceptibles de changer d'emploi et à continuer à se développer.

Le but de cette étude était d'examiner comment les contenus des relations employeur/employé, conceptualisés à travers le contrat psychologique, influencent certaines intentions de carrières liées à l'employabilité, pour un échantillon d'employés âgés 45-55 et actifs sur le marché du travail néerlandais. Un deuxième but était d'étudier comment les stéréotypes influencent cette relation.

Notre model de recherche a été conceptualisé par une étude quantitative dans laquelle environ 1100 employés ont participé. Nous avons trouvé que les incitations déficit/excès et le niveau d'accomplissement de dimensions de contrats psychologiques spécifiques avaient différentes relations avec les intentions des participants et que le fait de s'identifier comme étant un travailleur âgé avait un effet modérateur sur quelques unes de ces relations.

Mots clés: contrat psychologique, fin de carrière, employés seniors, intentions de carrière, mobilité professionnelle, activités de développement.

Abstract

Like other Western European countries, the Netherlands has witnessed an increase in the average age of its working population. Since a few years these changes have incited the Dutch government to review the taxation of private early retirement schemes and to push back the legal retirement age. At the same time companies are asking employees to be ever more employable, so that they can compensate for the loss of lifelong employment security. Although there are many stereotypes about the motivation and capabilities of older workers, these employees will now have to work longer and are more likely to change jobs and to continue developing themselves.

The goal of this study was to examine how the contents of the employer-employee relationship, conceptualized through the psychological contract, influence two employability-related career intentions for a sample of employees aged 45-55 and active on the Dutch labor market. A second goal was to study how stereotypes influence this relationship.

Our research model was realized through a quantitative study in which almost 1100 employees participated. We found that deficient/excess inducements and the level of fulfilment of specific psychological contract dimensions had different relationships with the career intentions of participants and that the seeing oneself as an older worker had a moderating effect on some of these relationships.

Key words: psychological contract, late career, older employees, career intentions, job mobility, development activities.