

## Master Thesis

# **The Anticipatory Psychological Contract**

*The effect of anticipation of fulfillment of the psychological contract on job stress and the moderating effect of age.*

Abstract

Master BA - Strategic Human Resources leadership  
Radboud University Nijmegen

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## Chapter 1: Introduction

Employees create a (most of the time) positive and long-term relationship with their organization, based on certain expectations what the organization needs to offer them (Rousseau, 1995). Those relationships and expectations are embedded in the psychological contract (Anderson & Schalk, 1998). The psychological contract can be defined as follows: *'An individual's belief in mutual obligations between that person and another party such as an employer'* (Rousseau & Tijoriwala, 1998, p. 679). This psychological contract is at the foundation of the relationship between the employer and employee (Rousseau, 1989).

The psychological contract can also be about expectations in the future, which is called the anticipatory psychological contract, or APC. The APC focusses on pre-entry expectations, which are based on the future expectations. The anticipation of the fulfillment in the future, influences the way the employee behaves in future psychological contracts (Coyle-Shapiro & Kessler, 2002). According to De Hauw and De Vos (2010, p. 294), the APC can be defined as: *'individuals' preemployment beliefs about their future employment, including promises they want to make to their future employers and inducements they expect to receive in return'* Most of the literature in the psychological contract the backward-looking exchanges of the psychological contract. This means that the researchers investigated the effects of, for example, breaches or violation of the contract and the effect on employee outcomes, such as performance or turnover intention, but not what this means for future expectations employees have for psychological contract fulfillment (Gakovic & Tetrik 2003; Maslach, Schaufeli, & Leiter, 2000; Robinson & Morrison, 2000; Robinson & Rousseau, 1994; Zhao, Wayne, Glibkowski, & Bravo, 2007). The research that has been done on the APC, was mainly about pre-entry expectations (Coyle-Shapiro & Kessler, 2002; De Hauw & De Vos, 2010; De Vos & Meganck, 2009). In this study there will be looked at the APC in a different way. This time, it is not about pre-entry expectations, but about the anticipation of fulfillment of the psychological contract by employees who are already employed. The focus will be on the fulfillment of the employment relationship of employees throughout their whole career and especially what they expect in the future. Therefore, based on the definition of De Hauw and De Vos (2010) the following definition of the APC will be used in this study: *'Individual beliefs about their employment relationship, including promises they want to make to their employers and inducements they expect to receive in return'* and where the anticipation of fulfillment can be defined as: *"anticipation of fulfillment reflects the expected quality of the exchange process between the employer and employee"*, which is based on the

definition of psychological contract fulfillment by Guerro and Herrbach (2007, p. 5).

Many authors included job stress as an important topic in the research field already (Conti, Angelis, Cooper, Faragher & Gill, 2006; Elstad & Vabø, 2008; Gakovic & Tetrick, 2003; Oehler and Davidson, 1992). Although, researchers from all over the world argue that job stress is still dramatically increasing (Aldred, 2000; Agteren, 2018; Miley, 2018; Pfeffer, 2018), which makes it clear that job stress is still an important issue. Job stress can be defined as: “*an individual’s reaction to characteristics of the work environment that seem emotionally and physically threatening*” (Jamal, 2005, p. 225). According to Arbo (2016), one cause of the increasing job stress, is the uncertainty in the labor market nowadays, such as temporary contract and less job security. Not only uncertainty in the labor market, but also uncertainty in all aspects of the job can cause stress (O’Driscoll & Beehr, 1994). Job stress is also increasing due to higher demands, such as working faster and doing more work in the same amount of time. The increase of job stress can be seen in the growth of burnout, which was 11% in 2007 and increased to 16% in 2017, and a greater number of cases of illness and psychological complaints as well (Arboned, 2019). An emerging body of literature has also indicated a lot of different causes of job stress: too much demands, a lack of control, minimal support, unclear relationships with the employer, existential fear, conflict of interests (Arbo, 2016; Gakovic & Tetrick, 2003; Michie, 2002; Shaw, Fields, Thacker, & Fischer, 1993).

Some of the causes of job stress mentioned before can be linked to the psychological contract. For example, an unclear relationship between the employee and the employer. If the relationship and expectations are unclear, breaches or violation of the contract will emerge faster. Such breaches or violation of the psychological contract can also cause job stress. (Maslach, et al., 2001; Gakovic & Tetrick, 2003). Another cause for job stress can be times of substantial organizational change. Those changes can increase the probability of the breach of the psychological contract (Gakovic & Tetrick, 2003). As said before, job insecurity can have an effect on the psychological contract and job stress. If you are not secure about your job and you do not know if there will be fulfillment of the psychological contract, this can lead to stress (Gakovic & Tetrick, 2003).

Agteren (2018) argues that younger employees expect more help from their employers to deal with job stress than older employees. Meaning that there is a different psychological contract for younger employees than for older employees. Younger and older employees can have different values, ideas, career expectations and motivational drivers (De Hauw & De Vos, 2010). Besides, older and more experienced employees have a relatively more stable

psychological contract. This means that changes in the employment relationship, such as violation or contract breaches, may have a less intense impact on older and experienced people than on younger and more inexperienced employees (Rousseau, 2001; Mauno, Ruikolainen, & Kinnunen, 2013). Next to this, older employees are often focusing on the more short-term goals and are entering jobs with less expectations and more realistic expectations than their younger colleagues. Focusing on short-term goals and having less expectations, may result in less stress for the older employees (Bal, De Lange, Jansen, & Van der Velde, 2008; Lang & Carstensen, 2002). All of this means that there will be expected that when employees are growing older, the effect of anticipation of fulfillment of the psychological contract on job stress will be weaker. It is clear that age plays an important role in the psychological contract literature. The following goal for this study is established: this study will contribute to an extension of the literature on the (anticipatory) psychological contract, by testing the relationship of the anticipation of fulfillment of the psychological contract on job stress, moderated by age. Therefore, the following research question can be formulated:

*What is the effect of anticipation of fulfillment of the psychological contract on job stress, and to what extent is this moderated by age?*

This study will contribute to the literature in the following ways: first, it will contribute to the literature of the anticipatory psychological contract, by looking at it in a different way. There will be looked at employees, who are already employed, instead of pre-entry employees. Next to this, stress can have an enormous impact on the employee (Parker & Decotiis, 1983), but also on the organization (Noblet & Montagne, 2006), it is very important to know more about stress. This study will contribute to the literature of stress, by examining which role age and anticipation of fulfillment of the PC play with stress. There is still a gap in the role of age in the psychological contract (Farr & Ringseis, 2002; Kanfer & Ackermann, 2004). This study will fill this gap, by examining the role of age in the new concept of APC and the anticipation of fulfillment.

This study will be structured as follows: in the second chapter there will be given an overview of the theoretical framework, regarding the psychological contract, job stress, age and expectations. In chapter three, the methodology and results of the field study will be presented. The methods and results of the vignette study will be showed in the fourth chapter.

In chapter five there will be given an overall conclusion. Chapter six will include the discussion, limitations and future research potentials.

## **Chapter 2: Theoretical Framework**

In the second chapter of this study, there will be given an overview of the existing literature about job stress, the (anticipatory) psychological contract and age. After this, hypotheses will be formulated, concepts will be operationalized and a conceptual model will be shown.

### **2.1 Job Stress**

Job stress can lead to different organizational problems for both the worker and the workplace, such as a higher turnover intention, dissatisfaction, lower motivation, reduction of productivity/efficiency and even to health-issues among employees (Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003; Noblet & LaMontagne, 2006; Parker & DeCotis, 1983; Schuler, 1980). Organizations may suffer considerable losses due to job stress; it can cost the organization 10 percent of their earnings (Dyck, 2001). This amount makes it clear that job stress can be a serious problem, not only for the employee, but also for the organization itself. Cryer, McCraty, and Childre (2003), argue that workplace stress has increased by 10 percent between 2001-2003, which means that these costs will only increase more nowadays.

To understand job stress, it is important where job stress comes from. It can be difficult to manage job stress, because you cannot easily alter the work environment or work design. Often, it is not caused by one specific, major stressful event, but by the accumulation of minor everyday events (Chamberlain & Zika, 1990). According to Fairbrother and Warn (2003), there are five elements in the workplace that can bring up job stress. The first one is the work itself, for example work overload or too much demands, but also the level of autonomy and how meaningful the job is can influence the amount of stress an employee experiences (Colligan & Higgins, 2006). The second element is about the quality of the social environment. According to Noblet and LaMontagne (2006), also the behavior of the supervisor can have an impact on the stress the employee experiences. The third aspect of job stress can be found in the unclear expectations of the career development, such as promotion prospects and being undervalued. The fourth element that can bring stress is the work-life balance, which can have an impact on personal relationships. Lastly, there are some physical conditions that can cause stress, for example overcrowding, a lack of privacy or high levels of noise. All of these elements may be a major barrier to functioning effectively in an organization (Noblet & LaMontagne, 2006).

Next to this, there is a theory that can be linked to job stress: Conservation of Resources Theory (COR) (Hobfoll, 1989). The theory assumes that job demands, and resources can be potential sources for job stress. This theory assumes that people exert oneself to acquire (which are valued by employees)

resources. When resources cannot meet the demands, stress, burnout, turnover intention and health complaints may come out. Job demands are a threat for someone's resources and therefore this can be a potential source for stress. If this is happening a longer time, this will lead to emotional exhaustion (Taris, Scheurs, & Van Iersel-Van Slifhout, 2001). Some of the five elements of Fairbrother and Warn (2003) can be linked to this theory. The first element, the work itself, and especially too much demands run parallel with the COR theory, by stating that too much demands will lead to stress. Also, the physical conditions named in the last element, could be seen as demands which can be a potential source for stress.

## **2.2 The Psychological Contract**

### **2.2.1 The 'Original' Psychological Contract**

The psychological contract was first discussed in the 1960s (Argyris, 1960; Levinson, 1962; Schein, 1965). The psychological contract is a set of beliefs between the employer and employee. The most used definition is the one of Rousseau & Tijoriwala (1998, p. 679): '*An individual's belief in mutual obligations between that person and another party such as an employer*'. The contract is about certain expectations employees have about their organization and what they need to offer, and the other way around, which is developed by interaction with the organization (Anderson & Schalk, 1998; Rousseau & Parks, 1993). The social exchange theory of Blau (1964), can be linked to this mechanism. Blau (1964) argues that individuals who feel respected and valued, are more likely to show trust and emotional engagement in social exchanges. Those social exchanges can be linked to the psychological contract: if an organization shows care and support to the employees, by for example fulfilling the psychological contract, the employee will also be more likely to show favorable job performance and job attitudes (Coyle-Shapiro & Conway, 2005).

The psychological contract has some characteristics: the contract has relational and transactional parts (Guzzo & Noonan, 1994); it is perceptual (Robinson, 1996) and inherent subjective (Rousseau, 1990); it is dynamic and will change over time (McFarlane Shore & Tetrick, 1994). McFarlane, Shore and Tetrick (1994) argue that the psychological contract is formed to direct employee behavior, to give some sense of control and predictability to the employee and to reduce uncertainty.

However, it may be the case that organizations are not willing or are not able to fulfill all of the expectations, which can result in a contract breach or violation of the psychological contract (Gakovic & Tetrick, 2003). Such a contract breach can result in emotional reactions, as for example: negativism, harassment and anti-role behaviors, but also in reduced

commitment, job performance and citizen behavior. (McLean Parks & Kidder, 1994; Ng & Feldman, 2009; Robinson, 1996; Robinson & Rousseau, 1994). According to Robinson and Rousseau (1994), a contract breach causes a decrease of trust and will create feelings of betrayal. How intense the emotional reaction will be, is dependent of the general beliefs about respect and the codes of conduct.

### **2.2.3 The Anticipatory Psychological Contract**

When employees are entering a new job, they have certain expectations about what the organization should provide them. Most of the time this is a very uncertain period, where the employees want to learn about the organizational culture, tasks and responsibilities (Thomas & Anderson, 1998). Some researchers used a term 'pre-entry expectations' to define this (Ivring & Meyer, 1994; Major, Kozlowski, Chao & Gardner, 1995; Sutton & Griffin, 2004;). The pre-entry expectations are based in the Anticipatory Psychological Contract (APC), which can be defined as: *'individuals' preemployment beliefs about their future employment, including promises they want to make to their future employers and inducements they expect to receive in return'* (De Hauw & De Vos, 2010, p. 294; De Vos, Stobbeleir, & Megank, 2009). The APC enables the employees to reduce uncertainty and to make sense of the new working environment they will get in. The APC not only consists of the pre-entry expectations, but also out of cultural orientation and the information and promises the organization showed during the selection and recruitment process (Delobbe, Cooper-Thomas, & De Hoe, 2016).

The way the APC is constructed by the employee, will influence the evaluation of those employees in later experiences in the organization (Mabey, Clark, & Daniels, 1996). If the pre-expectations are not fulfilled, the employees feel that their APC is breached or violated, which may result in reduced commitment and satisfaction to the organization. Because of the fact that the psychological contract is dynamic (Thomas & Anderson, 1998). The employees will adapt their beliefs about what they owe the organization to the extent in which they believe their employer will fulfill their expectations (De Vos, Buyens, & Schalk, 2003). As said before, in this study the focus will be on people who are already employed. According to De Vos and Freese (2011) and Thomas and Anderson (1998), employees will continue to evolve their (anticipatory) psychological contract. This is because people always carry expectations and what behavior people show, is influenced by the past (Feather, 1992). Therefore, it is important to look at expectations at every moment during the psychological contract.



### **2.3 The (Anticipatory) Psychological Contract and The Effect on Stress**

The existing literature is linking stress and the psychological contract mainly by breach and violation. When contracts are not fulfilled, the employee may experience less control and predictability. This can be associated with stress for the employee (Maslach, et al., 2001; Sutton, 1990). According to Birtch, Chiang and Van Esh (2015), psychological contract fulfillment anticipation is important because it reflects the expectations, perceptions and beliefs an employee has, about the extent of mutual obligations between an employee and employer. Birtch et al. (2015), also state that previous research has shown that this anticipation of fulfillment is related to a range of job outcomes, such as job satisfaction, commitment and job stress (Henderson, Wayne, Shore, Bommer, & Tetrick, 2008; Lester, Kickul, & Bergmann, 2007; Zhao et al., 2007). This also corresponds with the findings of Fairbrother and Warn (2003). The authors say that unclear expectations, about for example promotion or career development may lead to job stress. Those unclear expectations can be linked to uncertainty about the fulfillment of those expectations, which also may lead to job stress.

The job-demand resources model can also be connected to the anticipation of fulfillment of the psychological contract. This theory can be compared to the COR theory, which assumes that too many demands and/or too few resources can lead to emotional exhaustion (Bakker, Demerouti and Euwema, 2005; Hobfoll, 1989). Demands can be seen as those physical, social, psychological or organizational aspects of work that need physical or psychological effort/skills and are therefore associated with psychological or physiological costs (Demerouti & Bakker, 2011). If an employee experiences too much demands, the demands can turn into stressors. The other side of this story contains job resources. Those resources refer to the physical, social, psychological or organizational aspects of work that reduce job demands, stimulate growth, learning and development, and help in achieving the work goals (Demerouti & Bakker, 2011).

The job-demand resources model can be integrated in the psychological contract as follows: when an employee is satisfied about his or her job demands but does not receive enough or does not receive the right job resources, the employment relationship will be perceived as inequitable (Bakker et al., 2005). This will result in an adverse effect on job outcomes, such as satisfaction, commitment and job stress (Nahrgang, Morgeson Hofmann, 2011). The anticipation of fulfillment of the psychological contract about delivering resources may also affect the amount of stress (Bakker et al., 2005). If an employee believes, and thus anticipates that his or her psychological contract is going to be fulfilled, he or she will develop less stress. This means, that if an employee anticipates that the organization is not going to

bring down the demands, this may bring up stress. The other way around: if an employee anticipates that the organization will not bring up enough resources, this may also lead to stress (Bakker & Demerouti, 2007; Bakker, et al., 2005). When the right job resources are not presented to an employee, a negative spiral of resource loss may result, which means that the stress they experience will lead to even more stress in the end (Demerouti, Bakker, & Butlers, 2004).

Out of this there can be concluded that if employees anticipate that their psychological contract will not be fulfilled, they will experience more stress. Therefore, the following hypothesis is formulated:

*Hypothesis 1: The higher the anticipation of fulfillment of the psychological contract, the lower the amount of job stress the employee will experience.*

## **2.4 The Moderating Effect of Age**

Empirical research has shown that there are differences in older and younger employees' emotional intensity, self-concepts, social interaction patterns, life goals, coping strategies and behavior. And these differences may affect the way the employees develop expectations about their job and the way how they react when the expectations are not being fulfilled (Ng & Feldman, 2009; Steverink & Lindenberg, 2006).

In this study age will be defined in terms of the employees' chronological age, which is defined as the number of years someone is living (Barak & Schiffman, 1981). According to Bal et al. (2008), the life-span theory can be linked to this mechanism. Becoming older is associated with positive and negative effects: older employees experience a decrease in health and biological abilities, but an increase in knowledge and experience. Thereby, when people grow older, their future time perspective is decreasing. They see time as limited which makes achieving short-term goals more important. This makes some obligations in the future less important for the older employees than for the younger employees, who focus on longer termed goals, such as: career development and promotion (Lang & Carstensen, 2002). The focus on short-term goals will cause less stress about the anticipation of fulfillment. Next to this, young employees often enter the labor force with high and unrealistic expectations, whereas older workers have less and more realistic expectations about their psychological contract. This may also result in the fact that older workers will be less affected by contract breaches (Bal et al., 2007) and will experience less stress about anticipation of fulfillment of the psychological contract.

Another argument for older employees having a weaker relationship between the anticipation of fulfillment and job stress is given by Mauno et al. (2013), Ng and Feldman (2009) and Rousseau (2001): Older employees have a more stable psychological contract, which means that violation or contract breaches and probably also anticipation of those violation or breaches, will have a less intense impact on older employees (Rousseau, 2001; Mauno et al., 2013). This may be the result of older employees coping differently with their problems. They feel like their problems are less controllable and less changeable (Hansson et al., 2001), which may cause that they will accept their problems faster, instead of stressing about it. Ng and Feldman (2009), assume that when an employee is becoming older, their psychological contract is becoming more malleable, due to changing social relationships and emotions. When growing older, emotional reactions will become less intense. Next to this, the older employees will be better able to control emotions, due to experience on how to respond to negative events (Bal & Smit, 2012). The older employees will process the positive emotions more deeply than the negative emotions. When employees age they will have an increased focus on social relationships, explained by the socioemotional selectivity perspective (Carstensen, 1991). When employees grow older, they experience less problems with social relationships, react less intense to social situations and are better able to understand others' perspectives (Birditt, Fingerman, & Almeida, 2005).

The expectations are that older employees will have less expectations, will react less intense and will be better able to tolerate deviations from the expectations they have about the fulfillment of the psychological contract, which all may result in less stress for those older employees. Therefore, the following hypothesis is established:

*Hypothesis 2: The effect of anticipation of fulfillment of the psychological contract on job stress, is moderated by age; the effect of anticipation of fulfillment of the psychological contract on job stress is stronger for younger employees compared to older employees.*

## 2.5 Operationalization and The Conceptual Model

In the table 1 below, the operationalized concepts used in this study are given.

Concept	Definition
<b>Anticipatory Psychological Contract (APC)</b>	Individuals beliefs about the promises they want to make to their employer and inducements they expect to receive in return.
<b>Anticipation of fulfilment</b>	Reflection of the expected quality of the exchange process between the employer and employee.
<b>Job Stress</b>	An individual's reaction to characteristics of the work environment that seem emotionally and physically threatening
<b>Age</b>	The number of years someone is living

Table 1: Operationalization of the Concepts

The following conceptual model will be used in this study, which is shown in figure 1. The boxes represent concepts and the arrows represent relationships:

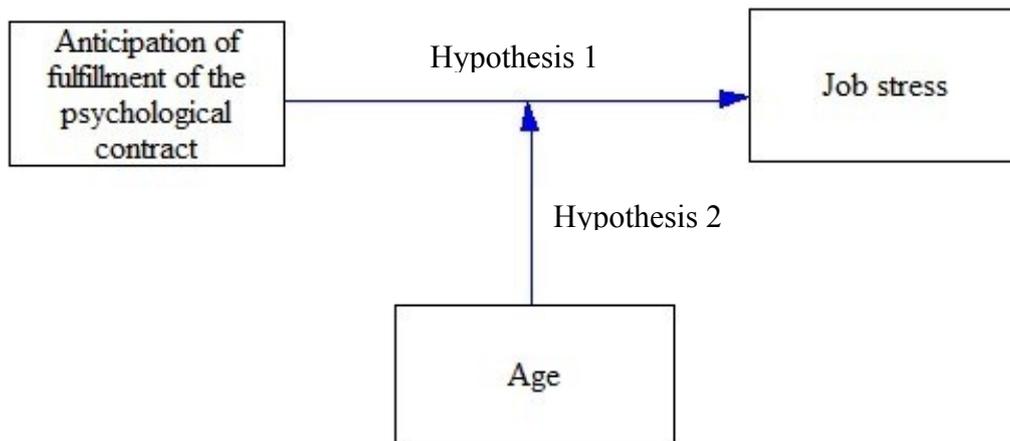


Figure 1: Conceptual Model

## Chapter 3: Study Approach

In this chapter the study approach will be given. First, the choice for combining a survey and an experimental vignette study will be explained. Next to this, ethics will be discussed.

### 3.1 Study Approach

The research question of this study was: ‘*What is the effect of anticipation of fulfillment of the psychological contract on job stress, and to what extent is this moderated by age?*’ To answer this question quantitative research was used.

Quantitative research was suited to research the main question, because all variables could be measured and empirically tested. Secondly, the constructed hypotheses could be tested, and causal relationships could be found. Next to this, quantitative research made it possible to see correlations between the variables and to test the strength of the relationship between anticipation of fulfillment of the psychological contract, job stress and the moderating variable age (Field, 2013; Vennix, 2011).

There was chosen to do a combination of a cross-sectional field study and an experimental vignette study to gather data. To test the causality, an experimental vignette study was conducted, to reveal the direction and strength of the causality between the variables in the model. According to Atzmüller and Steiner (2010), the combination of those studies is a good measure to investigate respondents’ beliefs, attitudes or judgements. Besides, a combination of those two studies counteract each weakness, because they will complement each other.

A survey was a good research method to measure the real situation, whereas an experimental vignette study was suitable to measure the causal relation, which could not be measured in the field study. Next to this, a survey has a high external validity and high construct validity, because of the real-life situation. Due to the fact that with a cross-sectional field study causality could not be measured, an experimental vignette study was also conducted. An experimental vignette study has a low external validity, because the situation that is created is fictive. However, an experimental vignette study has a stronger internal validity, because in this way causality could be measured and assessed (Atzmüller & Steiner, 2010; Field, 2013; Veenma, Batenburg, & Breedveld, 2004). Further details and characteristics of the field study and the experimental vignette study will be further explained in the following sections 4.1.1 and 5.1.1 respectively.

### **3.2 Ethics**

Not only for the respondent, but also for the researcher, it is important to address the ethical responsibility of this study. According to Resnik (2011), ethics in research can be seen as: *'methods, procedures or perspectives for deciding how to act and for analyzing complex problems and issues'* (p.1). There are several codes that need to be met in research to be ethical. Firstly, the researcher should always strive for honesty in all scientific communications. There will be no falsify or misrepresented data in this study. The data, methods and procedures will be honestly reported to prevent this. Secondly, this study will strive for objectivity by avoiding bias. Thirdly, with keeping the promises, with being consistent of thought and action, there will be strived for integrity. Fourthly, the data that will be gathered, will be used confidentially. This means that all the data will not be shared with third parties and that there will be an anonymous procedure of analysis. By promising anonymity, it is more likely to gather honest answers of the respondents. Lastly, the results of the study cannot have adverse effects on the respondents or society (Baarda et al., 2013; Resnik, 2011).

## **Chapter 4: Field Study**

### **4.1 Methodology Field Study**

#### **4.1.1 Research Design**

The first study that has been done is a field study. With a field study new primary data was gathered, analysed and interpreted. The type of field study that has been done is a cross-sectional survey. According to Tubbing (2014), a survey is an often-used quantitative research method and often consists out of questions measured with scales (for example, in this study a 5-point Likert-scale). An advantage of this research method was, that it is a validated measure, because it is used very often. Another advantage was that doing a survey took little time and resources. A possible disadvantage could be that the respondent could only choose from given answers and skip questions which could cause missing data. This could cause little input and explanations from the respondents itself. Another disadvantage could be that there is no interaction with the respondents of the survey, which results in the fact that you cannot ask further questions if needed to gather more information (Debios, 2017; Tubbing, 2014).

#### **4.1.2 Sample and Procedure**

The data is collected with the help of other students, who distributed the survey at different organizations in the Netherlands, using Qualtrics. The survey also consisted out of questions for other master thesis students. It was possible to combine the questions in one survey, without making it too lengthy, because the subject was somewhat overlapping. To test the psychological contract, it was important to ask employees who were in an employment relationship at the time of participation. What kind of function the employee held or in what type of organization the employee worked, was not important for this study. The cleaned survey sample of this study consisted out of 173 participants. Of the 173 participants, 60.1% (104 respondents) were female and 39.9% (69 respondents) were male. The youngest respondent was 18, and the oldest was 66, most of the respondents were between 21 and 30 years old. Lastly, at least 71% of the respondents finished secondary vocational education (MBO) or higher (HBO, WO).

#### **4.1.3 Measurement Tools**

In this research, the anticipation of fulfilment of the psychological contract was tested. Because of the fact that there was no existing scale for anticipation of fulfilment of the psychological contract, the questions of this survey were most precisely based on the survey

from Guest, Isaksson and de Witte (2010). The used questions of measurement tool can be found in *Appendix A* and the whole survey can be requested.

Firstly, age was measured with the following open questions: ‘*What year were you born?*’ and ‘*What is your age?*’. Next to this, the promises and commitments of the anticipatory contract the employer did to the employee were asked. The respondents needed to answer the question based on 5 answer categories: yes, but will not be fulfilled till yes, will be completely fulfilled. Next to the anticipation of fulfilment, also job stress was measured, which was based on the Ubos survey by Schaufeli & Dierendonck (2000). The questions asked to measure job stress can be found in *Appendix A*.

Lastly, there were some control variables: job tenure, weekly number of working hours contract and temporary/permanent contract. Job tenure is often used as control variable in other research (Coyle-Shapiro & Conway, 2005; Raja, Johns, & Ntalianis, 2004). According to Raja et al. (2004), job tenure can have an effect on job stress the employees perceive. A person with lower tenure may react less intense on for example a contract breach than a person with higher tenure. De Cuyper and De Witte (2006) use the weekly number of working hours as a control variable. This can be linked to part-time and full-time contracts, because people who work part-time will have less weekly working hours compared to people who work full-time. Because of this, the same argument was used. According to Steffy and Jones (1990), the difference between a full-time (higher number of working hours per week) and part-time contract (lower number of working hours per week) may affect the dependent variable job stress. They argue that unless part-time employees expect less from their work, they still are still confronted with their work situation on a regular basis, because the pressures perceived are not managed by those lowered expectations. Part-time employees cannot manage their work as effectively as the full-time employees, which may be due to the fact that the part-time employees receive less training, supervision and social support than their full-time colleagues. This results in the fact that part-time employees perceive more stress (Steffy & Jones, 1990). Also, the type of contract (temporary or permanent) can have an effect on job stress. Due to job insecurity, higher demands and a higher workload, temporary employees can experience more job stress than the permanent employees (De Cuyper & De Witte, 2006; De Cuyper et al., 2008). The questions asked for those control variables can be found in *Appendix C*.

#### **4.1.4 Analysis**

##### ***4.1.4.1 Common factor Analysis***

First, to analyse the data, a common factor analysis has to be done, to test discriminant validity. It was important to do a factor analysis, because it was a new measurement scale. In this way questions that were not significant important could be removed and the items could be summarized to one or more factors, which makes analysing the data easier (Hair, Black, Babin, & Anderson, 2014; Field, 2013).

To see if the common factor analysis may be applied, there will be looked at two different tests. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) tests to what if sample adequacy represents the population (Hair et al., 2014). The closer to 1, the better this test is, and the test will be accepted if KMO is  $>0.5$ . The second test, the Barlett's Test of Sphericity test measures whether there are enough correlations between the variables, which will be accepted if  $p < \alpha (0.05)$ . After this, there will be looked at the Eigenvalue, which determines how many components had to be used. Next, there was looked at the correlation matrix to see if there was a correlation under or above 0.3. If there was no correlation above 0.3, orthogonal factor rotation should be used. If there was correlation above 0.3, oblique factor rotation should be used. Rotation should make the interpretation of the variables more easily. When the right rotation method was selected, there should be looked at the communalities. If one of the communalities was under 0.2, that one should have been removed. There should also be looked at the cross-loaders (a variable that correlates with two or more factors), which is problematic if the difference between the highest and second highest value is less than 0.2. If so, this one should also have been removed. This cycle is iterative and should be done over and over until all the test were acceptable (Field, 2013; Hair et al., 2014). The principal common factor analysis should be done with all the items of job stress and anticipation of fulfilment in one test.

##### ***4.1.4.2 Reliability Statistics***

For every variable used in this analysis a reliability test was done (job stress and anticipation of fulfilment), to see if some of the items should still be removed to be reliable. This reliability test shows if the measurement scale is reliable. This is done by a reliability test where a Cronbach's alpha of 0.7 and higher will be accepted as reliable. Next to this, there should be looked at the table: "Cronbach's alpha if item deleted", which shows the reliability test, if one of those factors was removed. This was only needed if the difference between those two values of Cronbach's alpha is  $>0.05$  (Hair et al., 2014).

#### **4.1.4.3 Multiple Linear Regression**

A multiple linear regression analysis was chosen, because in this study a linear relationship between the independent variable (anticipation of fulfilment of the psychological contract) and the dependent variable (job stress) has been measured, with the mediating effect of age (Hair, Black, Babin, & Anderson, 2014). A multiple linear regression was a good manner to see if there was a significant relationship between the independent and dependent variable. Before doing a multiple linear regression, several assumptions need to be tested: Normality, Linearity, Homoscedasticity and Multicollinearity. Normality was tested by looking if the skewness or kurtosis  $> 2x$  standard error of skewness or kurtosis. If the skewness or kurtosis is bigger than 2 times the std. error of the skewness or kurtosis, there is non-normality. After this, linearity was tested by looking if the relationship between the independent and dependent variable was linear, which should be the case for multiple linear regression. For checking the assumption of homoscedasticity, a scatterplot had to be checked. All the variance should be equally presented in the data, and there should not be some kind of pattern to be seen. The last assumption, multicollinearity, could be checked in two different ways. First, there can be looked at the VIF values, which should be more  $>1$ . Second, the tolerance values can be checked, which should be  $>0.25$ . If all those assumptions are accepted, a multiple linear regression could be done (Field, 2013; Hair et al., 2014).

The first step was to test the model with the control variables (number of hours weekly, tenure and type of contract), to see if they were significantly related to the dependent variable job stress. This was needed to ensure that there were no system biases in the study. The control variables were included in the regression if they have a significant effect, if not the variables were removed (Bernerth & Aguinis, 2016).

After controlling for the above-named variables, the model was be tested for the relationship between the independent variable (anticipation of fulfilment) and the dependent variable (job stress), to see if there was a significant effect. After this, the moderating effect was added. To ensure that there was no multicollinearity, the variable age and anticipation of fulfilment were centred before the interaction term was made. The model was tested with the centred anticipation of fulfilment, the centred age and the interaction term to see if there was a moderating effect going on. After testing all those models, a conclusion could be made. If  $p < 0.05$ ,  $H_0$  will be rejected, which means that there is a significant effect ( $H_0: \beta = 0$ ,  $H_1: \beta \neq 0$ ). If  $p > 0.05$ ,  $H_0$  will be accepted, which means that there was no significant effect between the variables.

## 4.2 Results Field Study

### 4.2.1 Correlation Analysis

The correlation table below (table 2) shows that there is a negative correlation between the APC and job stress. Which indicates a negative coherence between those variables. Next to this, it is obvious that age and tenure has the highest significant correlation ( $r=.644$ ). A logical explanation is possible for this, when someone is older, it is more likely to have a higher tenure. What also is remarkable, is that there is no significant correlation found between age and APC and between age and job stress. This can mean that there is no significant moderating effect to be found because in this table they are not significantly related to each other. Finally, it is noticeable that the variable type of contract is significantly related to all variables except the APC. And that the APC is not significantly correlating with any of the variables. This could mean that other variables could have fitted the model better.

	Mean	SD	1	2	3	4	5	6
1. Age	34.82	14.321	1					
2. Tenure	7.12	8.923	.644 **	1				
3. Hours a Week	26.96	12.009	.384**	.238**	1			
4. APC	3.6974	0.77764	-.103	-.090	0.024	1		
5. Job Stress	2.3882	0.94172	.084	.175*	0.107	-.219**	1	
6. Type of Contract	1.42	0.495	-.495**	-.538**	-0.241**	.038	-.172*	1

### 4.2.1 Common Factor Analysis

First, the model is tested with the variables EmoExh, which is based on job stress and PCflwg, which is based on the anticipation of fulfillment of the employee. In this model with all the items of job stress and anticipation of fulfillment, KMO (.766) and Barlett's test ( $p = .000$ ) are both accepted (see *Appendix D*, table 8). After this, there should be looked at the Eigenvalue,

$p < 0.05^*$ ,  $p < 0.01^{**}$

Table 2: Correlation matrix

in this case there should be used 5 components (see *Appendix D*, table 9.). Next, there should be used an oblique factor rotation, because of the fact that there are one or more correlations above 0.3 (See *Appendix D*, table 10). To see which items should be removed, the communalities should be viewed. In *Appendix D*, table 11, a part of this communalities table can be seen, which shows that the variables have no factor loadings under the 0.2, which applies for all variables. After this, the cross-loaders are checked. In this case item 8 of anticipation of fulfillment (PCflwg8) has only a difference of 0.003 (see *Appendix D*, table 12). This variable should be removed, and the principal common factor analysis should be done another time. After removing all the problematic communalities and cross loaders (see the other tests in *Appendix D*), the reliability should be tested.

#### 4.2.1 Reliability Test

This reliability test will be done separately for the two variables and will not include the items that were removed in the factor analysis. In this case, Cronbach's Alpha for all items of job stress is .616, which means that this reliability is not accepted. Items could be deleted to improve this. If item 1 of the variable job stress is deleted, Cronbach's Alpha will improve to .733. The difference of .117 ( $.733-.616=.117$ ), means that this item should be removed. After this, Cronbach's Alpha is acceptable and cannot be improved anymore (See *Appendix E*, table 13).

Cronbach's Alpha for all residual items of the APC, is .871, which is an acceptable reliability statistic. Cronbach's alpha could be improved to .880 if the third item is deleted, but as told before it will not be improved by more than .05 ( $.880-.871=.009$ ), this item should not be removed (See *Appendix E*, table 14).

#### 4.2.2 Multiple Linear Regression

To see if the assumption of Normality has been met, there has to be looked at the skewness and kurtosis three variables: job stress, anticipation of fulfilment, age, tenure, working hours and type of contract. In *Appendix F*, table 16, there can be seen that only the variable age shows some kurtosis and skewness. However, for multiple linear regression analysis a normal distribution is not a strict requirement. The data does not have to be transformed, but it has to be kept in mind, doing the rest of the multiple linear regression (Field, 2013). To test for linearity comparing means was used, where a test for linearity between the independent (anticipation of fulfilment) and dependent (job stress) variable could be done. In *Appendix F*, table 15, can be concluded that the assumption for linearity was met. Because the deviation from linearity was not significant ( $p=.474>.05$ ). Next to this, there should be tested for multicollinearity. In *Appendix F*, table 17, there can be seen that all variables met the assumption of multicollinearity. All the VIF values are higher than one, which is acceptable. The same applies for the tolerance values, which need to be higher than .25 to be acceptable. Lastly, there should be looked at the homoscedasticity. To do this, a scatterplot is needed to see if there are unequal variance patterns in your data, this plot can be seen in *Appendix F*, figure 3. In this case there is homoscedasticity, because there is no pattern to be seen and the variances are evenly distributed.

After testing all the assumptions, the multiple linear regression could be done. All of the outcomes can be found in table 3 below. First, a model with only the control variables is

tested to see if those variables have a significant effect on the dependent variable, in this case, job stress. All the probabilities of the control variables were higher than .05, which means that there is no significant relationship between the control variables and the dependent variable job stress. As said, before, the control variables will be removed in the other models. Next, the relationship between the independent variable (anticipation of fulfillment) and the dependent variable (job stress) is tested. The model is significant ( $F(1,161)=8.134, p=.005$ ). And the relationship is also significant ( $B=-.244, t=-2.852, p=.005$ ),  $H_0$  is rejected and the relationship between anticipation of fulfillment and job stress is significant. The B is negative (-.244), which means that when an employee has a higher anticipation of fulfillment, they will experience less stress. Out of this, there can be concluded that hypothesis one can be accepted: *The higher the anticipation of fulfillment of the psychological contract, the lower the amount of job stress the employee will experience.* After testing this (significant) relationship, the moderating effect is added ( $F(3,159)=3.173, p=.026$ ). The moderating effect of age is not significant, ( $B=.000, t=-.056, p=.955$ ),  $H_0$  is accepted and this means that there is no moderating effect. In this case age has no influence on the relationship between anticipation of fulfillment and job stress and the second hypothesis cannot be accepted: *The effect of anticipation of fulfillment of the psychological contract on job stress, is moderated by age; the effect of anticipation of fulfillment of the psychological contract on job stress is stronger for younger employees compared to older employees.* Next to this, the models have a very low explanation power (Adjusted  $R^2 = .024$  for model 1, .042 for model 2 and .039 for model 3), which can mean that the linear fit is very weak.

Because of the fact that the field study was cross-sectional, the data was collected at one point in time. This makes it impossible to determine causality. To find more about the causality between the relationships, an experimental vignette study will be done, which is shown in chapter 5.

Model	Control Variables		Direct Relationship		Moderating Effect	
	1		2		3	
	B	SE	B	SE	B	SE
Tenure	0.004	0.006	-	-	-	-
Type Contract	0.12	0.10			-	-
Hours a week	-0.193	0.179	-	-	-	-
APC	-	-	-0.265**	0.093	-0.253**	0.094
Age	-	-	-	-	0.006	0.005
Interaction apc/age	-	-	-	-	0.000	0.006
Adjusted R <sup>2</sup>	0.023		0.042		0.039	
R <sup>2</sup> change	0.042		0.048		0.008	
Sig. Model	0.078		0.005**		0.026*	
F Value	2.316		8.134		3.173	

$p < 0.05^*$ ,  $p < 0.01^{**}$

Table 3: Outcomes Multiple Linear Regression

## Chapter 5: Experimental Vignette Study

### 5.1 Methodology Vignette Study

#### 5.1.1 Research Design

A vignette study uses short descriptions that are shown to respondents in order to elicit their judgements about it. A typical characteristic is that each respondent only gets one situation, or also called scenario, to be seen. Scenarios can be defined as: '*stories which present hypothetical situations requiring action or judgment from respondents*' (Wason & Cox, 1996, p.155). The different scenarios were randomly given to the respondents, which was done by the program Qualtrics. All of the respondents will get the same questions about age, anticipation of fulfilment and job stress, but the difference will be the scenarios they get tested in. By using an experimental vignette study, causal relationships could be investigated. It is very hard to see what is going to happen in the future, the scenarios will give a prediction of different situations in the future. According to Soydan (1996) a vignette study can be a good way to investigate a detailed situation: '*Vignettes consist of stimuli that are interpreted as concrete and detailed descriptions of social situations and circumstances*' (p. 121).

There are several reasons to use experimental vignette studies. First, an experimental vignette study provides great realistic manipulation, because it offers a range of contextual and situational factors that show real-life situations where respondents need to make decisions. Second, internal validity is good, because standardized stimuli are delivered to the respondents. One of the disadvantages of experimental vignette studies is, that it takes a lot of time. Respondents can answer the questions more rational than in real life (Veenma et al., 2004). Because of the fact that the scenarios will be fictive and because of the fact that scenarios are not generalizable to larger population, the experimental vignette study has a low external validity (Lucas, 2003).

The experimental vignette study will also have a short introduction survey. In this survey some general questions are asked such as age, full-time/part-time job, permanent/non-permanent contract and job tenure. Next to this, there were asked questions about their APC at that moment in their real-life situation. After the more general questions, one of the five scenarios will be presented. The respondents were asked to take their own job in mind. In those scenarios there will be presented four promises (two relational, two transactional) of the employer and four promises (two relational, two transactional) of the employee him/herself. The fulfilment of those promises of the employee and employer were manipulated 2 times (T1 & T2). The scenarios are pictured in figure 2, where T0 could be seen as April 2020, T1 as

July 2020 and T2 as October 2020 in a period of one year, WN and WG could be seen as employee and employer respectively and were F and B could be seen as fulfilment and breach of the promises. In this study only T0 and T1 were used for the analysis.

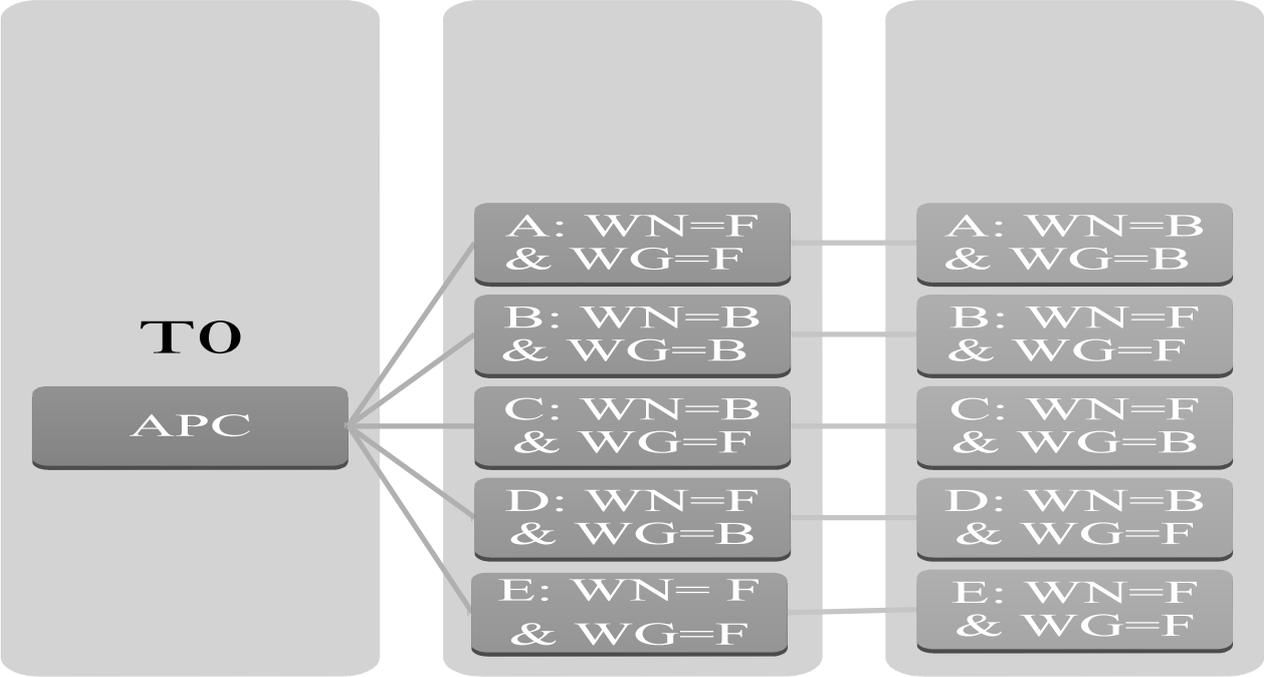


Figure 2: Vignette Study Design

**5.1.2 Sample and Procedure**

The second study needed a sample of 40 people per scenario (5 scenarios), so at least 200 in total to be useful for the results of the study. The vignette study was held online via Qualtrics

and distributed via different channels such as Facebook, LinkedIn, WhatsApp in. This type of distribution means that the respondents were chosen non-randomly. The process of gathering data was in collaboration with 5 other students. Therefore, the study also consisted out of several items, that helped them do their study. For this study the same was applied as for the survey study: people had to be in an employment relationship, and it did not matter what function they had or in what organization they worked. The cleaned survey sample of this study consisted out of 209 respondents. Those 209 participants are divided over the scenarios in the following way: scenario 1: 45 participants, scenario 2: 40 participants, scenario 3: 36 participants, scenario 4: 44 participants, scenario 5: 44 participants.

Out of the 209 participants, 62.7% (131 respondents) were female and 37.3% (78 respondents) were male. The youngest respondent was 16, and the oldest was 63. At least 80% has finished least secondary vocational education (MBO) or higher (HBO, WO). And 24% of the 173 respondents had worked for the organization for more than 10 years.

### **5.1.3 Measurement Tools**

In this vignette study, the following concepts will be asked about: anticipation of fulfilment of the psychological contract, job stress and age. Firstly, there were asked some general questions such as age, tenure and type of contract. After this, there was asked about the anticipation of fulfillment. The questions asked about the fulfilment of the PC were also based on the Psycones-project from Guest, Isaksson and De Witte (2010), which can be found in *Appendix B*. Job stress will also be based on the UBOS (Schaufeli & Dierendonck, 2000). The items that will be asked about these concepts can be found in *Appendix B*. The questions will also be based on a 5-point Likert scale: will not be fulfilled till will be completely fulfilled. The questions of job stress were also based on a 5-point Likert scale: rarely or never till very often or always (for the first scenario). For the second, third, fourth and fifth scenario, there needed to make some changes in the questions to make it feel like a real-life situation. The answers were changed in: rarely or never *at this moment* till very often or always *at this moment*. In this way the respondents could response for only the scenario at that moment. Lastly, age will be asked by an open question: “*What year were you born?*”. After the introduction questions, the respondents were allocated to one of the five scenario’s at T1 and T2 (see *Appendix B*). The questions about the APC and job stress were asked again after the given scenario, to see if there was some causality between the manipulation and the dependent variable job stress.

Besides, there were also some control variables that needed to be tested. In this case the same control variables were used as in the first study: job tenure, number of hours working and type of contract (temporary/permanent), which can be found in *Appendix C*. The whole questionnaire can be requested.

#### **5.1.4 Analysis**

##### ***5.1.4.1 Common Factor Analysis***

The results of the vignette study were also be analysed by SPSS. Same as for the field study, first there was done a common factor analysis and a reliability, to test discriminant validity and respectively (Field, 2011). This had to be done, because the measuring scale was not used before in other research. The actual analysis for testing the hypotheses of the vignette study and the different scenarios were done with a multiple linear regression, to test the causal relationship.

Same as for the field study, a principal common factor analysis will be done first to test the measurement scale. To see if the common factor analysis may be applied, there will be looked at two different tests. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) tests to what extent one variable can be predicted by other variables. The closer to 1, the better this test is, and the test will be accepted if KMO is  $>.5$ . The Barlett's Test of Sphericity test measures whether there are enough correlations between the variables, which will be accepted if  $p < .05$ . In this case  $H_0$  will be rejected ( $H_0$ : All correlations are zero,  $H_1$ : Not all correlations are zero). After this, there will be looked at the Eigenvalue, which determines how many components had to be used. Next, there was looked at the correlation matrix to see if there was a correlation under or above  $.3$ . If there was no correlation above  $.3$ , orthogonal factor rotation should be used. If there was correlation above  $.3$ , oblique factor rotation should be used. If the right rotation method was selected, there should be looked at the communalities. If one of the communalities was under  $.2$ , that one should have been removed. There should also be looked at the cross-loaders (a variable that correlates with two or more factors), which is problematic if the difference between the highest and second highest value is less than  $.2$ . If so, this one should also have been removed. This cycle is iterative and should be done over and over until all the test were acceptable (Hair et al., 2014).

##### ***5.1.4.2 Reliability Statistics***

The principal common factor analysis should be done with all the items of job stress and anticipation of fulfilment in one test. After this test, the data was reduced, and the questions

were divided into a couple of factors. For every variable used in this analysis a reliability test was done (job stress and anticipation of fulfilment), to see if some of the items should still be removed. This is done by a test where a Cronbach's alpha of 0.7 and higher will be accepted as reliable. Next to this, there should be looked at the table: 'Cronbach's alpha if item deleted', which shows the reliability test, if one of those factors was removed. This was only needed if the difference between those two values of Cronbach's alpha is more than 0.05 (Hair et al., 2014).

#### **5.1.4.2 ANCOVA**

After the common factor analysis, a covariance analysis (ANCOVA) was done. With this test the different scenarios were tested for the dependent variable. Next to the relationship between the independent variable (job stress) and the dependent variable (fulfilment of the APC), there was expected another relationship between an independent variable, the covariate (age) and the dependent variable. The goal of this ANCOVA test was to ensure that the main effects are as pure as possible and not caused by the covariate. Before doing the ANCOVA some assumptions needed to be tested. Firstly, the dependent variable should be minimal interval level. Next to this, the sample should be randomly chosen, and the observations should be independent. Also, there should be homogeneity of variances. which can be tested by Levene's test. By Levene's test there is homogeneity if  $H_0$  will not be rejected. Next to this, the covariate needed to correlate with the dependent variable, but not with the independent variable. The following hypotheses were tested:  $H_0$ : The covariate does not have any influence on the dependent variable and  $H_1$ : The covariate does have influence on the dependent variable.  $H_0$  was be rejected if:  $p < \alpha$  (0.05), which means that the covariate does have influence on the dependent variable.

## **5.2 Results Vignette Study**

### **5.2.1 Factor Analysis and Reliability Statistics**

The first model is tested with the variables job stress and the APC of the employee. In this model with all the items of job stress and APC, KMO (.787) and Barlett's test ( $p = .000$ ) are both accepted (see *Appendix G*, table 18). After this, there should be looked at the Eigenvalue, in this case there should be used 2 components (see *Appendix G*, table 19). Next, there should be used an oblique factor rotation, because of the fact that there are one or more correlations above .3 (See *Appendix G*, table 20). To see which factors should be removed, the communalities should be viewed. There are no low communalities found and they also cannot

be found any cross-loaders in this test (*Appendix G*, table 21 and 22). This means that this scale depends on two factors, which makes sense, because all the items of job stress are loading on one component and the factors of the APC on the other.

This reliability test will be done separately for the two variables and will include all the items of the variables, because no item was removed. In this case, Cronbach's Alpha for all items of job stress is .833, which means that this reliability is already accepted. Items could be deleted to improve this. If item 1 of the variable job stress is deleted, Cronbach's Alpha will improve to .922 ( $.922 - .833 = .089$ ), which means that this item should be removed. After this, Cronbach's Alpha is still acceptable and cannot be improved anymore (See *Appendix G*, table 23).

Cronbach's Alpha for the variable APC, is .870, which is an acceptable reliability statistic. Cronbach's alpha could not be improved, which means that this variable is seen as reliable with all items included (See *Appendix G*, table 24).

## 5.2.2 ANCOVA

Before doing the ANCOVA, the scenario's 1, 3 and 5 were combined into one group called fulfillment and 2 and 4 into a group called breach. There was chosen to merge the scenario's because it made analyzing the data easier.

To do ANCOVA, some assumptions should be tested. First, the dependent variable should be minimal interval level. The dependent variable job stress can be seen as an interval variable. Job stress is measured with a 5-point Likert scale. The items of the Likert scale are created by calculating a sum or mean from those 5 items, therefore, the created score for Likert scales can be analyzed at interval measurement scale (Boone & Boone, 2012). The second assumption states that the sample should be randomly selected. In this case, the sample size is not fully randomly selected, because of the fact that the experiment is spread via social media. So, the second assumption could not be fully accepted. However, it is known that this is not in line with the rules, but because of the fact that it is a new concept and the limited amount of time, there is still chosen to do an ANCOVA study. Next to this, the observations are independent of each other. Also, the covariate should be independent of the manipulation (breach or fulfillment). In *Appendix I*, table 28, you can see that this test is not significant, which means that the covariate age can be used in this model ( $F(1, 207) = 2.983$ ,  $p = 0.90$ ). The fourth assumption that need to be tested, is the homogeneity of variances (Levene's test). In *Appendix I*, table 27 there can be seen that the outcomes are:  $F(1, 207) = .093$ ,  $p = 0.761$ , which means that this assumption is accepted. Lastly, there is tested for

equal mean between the groups (fulfillment, breach). Because of the fact that there are only two groups (fulfillment and breach), there can be looked at the descriptive statistics to see if the mean of the groups are equal or not (see *Appendix I*, table 26). Out of this table, there can be concluded that the mean of the two groups differ slightly but can be seen as equal, which made it acceptable for doing ANCOVA. After testing the assumptions, an ANCOVA model was built. Out of the table below, the following conclusions can be made:

<b>Source</b>	<b>Type III Sum</b>	<b>Df</b>	<b>Mean</b>	<b>F</b>	<b>Partial</b>
<b>Dependent variable:</b>	<b>of Squares</b>		<b>square</b>		<b>Eta</b>
<b>Job Stress</b>					<b>Square</b>
					<b>d</b>
<b>Corrected Model</b>	55.802***	4	13.951	24.702	.326
<b>Intercept</b>	4.002***	1	4.002	7.087	.034
<b>Dummy_breach</b>	9.158***	1	9.158	16.216	.074
<b>Age</b>	.186	1	.186	0.329	.002
<b>APC T1</b>	4.666	1	4.666	8.262	.039
<b>APC T1 * Age</b>	.019	1	.019	.033	.000
<b>Error</b>	183.207	204	.565		
<b>Total</b>	1941.500	209			
<b>Corrected Total</b>	224.749	208			
<b>Adjusted R<sup>2</sup></b>			0.313		

Table 4: Outcomes ANCOVA

## Chapter 6: Conclusion

The aim of this study was to add some knowledge to the literature of the (anticipatory) psychological contract and stress. Next to this, there was investigated if age could have a moderating effect on this relationship. All of this was done by answering the main question:

*What is the effect of anticipation of fulfillment of the psychological contract on job stress, and to what extent is this moderated by age?*

In the first test (field study), one of the two hypotheses were confirmed. This means that there is found a slightly negative effect between the anticipation of fulfillment of the psychological contract and job stress. On the other hand, there was no effect found for the moderating effect of age. This means that age does not moderate the relationship between anticipation of fulfillment and job stress in this case.

After all, anticipation of fulfillment has a slightly negative influence on stress. Someone who anticipates fulfillment, will experience less stress in the end.

## Chapter 7: Discussion

### 7.1 Discussion

This study focused on the relationship between the fulfillment of the psychological contract and job stress, moderated by the age of the employee. This relationship is tested based on the two different studies (field study and experimental vignette). The choice of combining two different methods, made this research outcomes stronger. The two methods complemented each other. Where the field study gave a realistic view of the situation, the vignette study gave the possibility to determine the causality between the different tested variables.

Next to this, the fact that the anticipation of fulfillment in the future is a very new concept, made it very difficult to find the perfect method to test the hypotheses. It could be the case that there is too little theories available to choose the best method.

This study contributed in different ways. First, there was tested a new concept: the anticipatory psychological contract, with employees who were already employed. Because of this, this study will contribute to the literature of the (anticipatory) psychological contract.

Next to this, there was also contributed to the literature of job stress. Which is, as said before, a very important factor for both employer and employee. **This can also be seen as a practical implication. In this way, employers can for example**

### 7.2 Limitations

The study that has been done will also have some limitations. It can be a limitation that there is no further research done yet. The way this concept is investigated is very new. Usually, explorative research is been done first, to operationalize and define the new concepts. Because of the fact that this study is about a very new concept, it can be difficult to measure it in the right and correct way.

Second, there was no time to do a pre-test of the vignette study. This means that it is not sure, that all the that the test will be good enough to test the relationship between anticipation of fulfillment of the psychological contract and job stress, with the moderating effect of age. Next to this, a relatively small sample size is used. In the first study there were 173 respondents and in the second one, there were 209 respondents. Compared to the target audience, everyone from 15 till 67 who works, this is relatively small. Although, significant effects are found.

Thirdly, for the first study there was a very low adjusted  $R^2$ . This can mean that there was a very weak linear fit. It could also be the case that the incorrect independent variables

were chosen. By adding other relevant independent variables instead of the chosen one in this study, could improve this explanation power.

After all, the length of the questionnaire of the vignette study is also a limitation. Because of the fact that the questionnaire was a combination of five other master thesis students, it was a very long questionnaire. This caused the fact that a lot of people did not found the time to completely fill in the questionnaire.

### **7.3 Future Research Potentials**

Although, in this research there has been made some steps in the area for the anticipatory psychological contract, there is still a lot of uncertainty. Further research can further investigate different relationships among this APC to also contribute to the literature of the (anticipatory) psychological contract. First, there should be done some explorative research about this subject to get more knowledge. After defined and operationalized concepts are created, further research could be done.

As said before, in the first study, there was a very low explanation power. This could be caused by choosing irrelevant independent variables. Future research should look at different variables and different relationships. An example can be, that not age is a moderating variable, but gender or education level could also have a moderating effect. Also, there could be done research with a bigger sample. This time, the sample was not that big compared to the target group.

Because of the fact that this concept of the APC is very new. It is possible that the questionnaire used was not the most appropriate one. Future research can look at a different measuring scale of the APC or job stress.

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## Appendices

### Appendix A: Items Field Study

Concept	Item
Anticipation of fulfillment of the psychological contract (Guest, Isaksson, & De Witte, 2010).	<p><u>Mijn organisatie heeft beloofd of toegezegd dat ze:</u></p> <ol style="list-style-type: none"> <li>1. Mij interessant werk zal bieden</li> <li>2. Mij een redelijke werkzekerheid zal bieden.</li> <li>3. Mij een goede beloning zal bieden voor het werk dat u doet.</li> <li>4. Mij mogelijkheden zal bieden om plezierig samen te werken.</li> <li>5. Mij inspraak zal geven bij de besluitvorming.</li> <li>6. Mogelijkheden zal bieden om vooruit te komen en mijzelf te ontwikkelen.</li> <li>7. Mij loopbaanmogelijkheden zal bieden.</li> <li>8. Mij een goede werksfeer zal bieden.</li> <li>9. Mij in aanmerking zal laten komen voor een promotie wanneer de mogelijkheid zich voordoet.</li> <li>10. Mij flexibiliteit zal garanderen bij het afstemmen van privéleven en werk.</li> <li>11. Mij uitdagend werk zal bieden.</li> <li>12. Mij hulp zal bieden bij problemen die zich buiten het werk voordoen.</li> </ol>
Job Stress (Schaufeli & Dierendonck, 2000)	<ol style="list-style-type: none"> <li>1. Ik twijfel aan het nut van mijn werk.</li> <li>2. Ik voel mij opgebrand door mijn werk.</li> <li>3. Aan het einde van een werkdag voel</li> </ol>

	ik me leeg.
Age	<ol style="list-style-type: none"><li>1. In welk jaar bent u geboren? (open question)</li><li>2. Wat is uw leeftijd?</li></ol>

*Table 5: Items Field Study*

## Appendix B: Items Vignette Study

Concept	Item
<p>Anticipation of fulfillment of the psychological contract (Guest, Isaksson, &amp; De Witte, 2010).</p>	<p><u>Beloofd of toegezegd dat door de:</u></p> <p>Werknemer:</p> <ol style="list-style-type: none"> <li>1. Loyaal zal zijn aan de organisatie</li> <li>2. Innovatieve voorstellen ter verbetering zal doen aan de organisatie.</li> <li>3. Overuren zal maken als dat nodig zou zijn.</li> <li>4. Anderen zal helpen bij hun werk.</li> </ol> <p>Werkgever:</p> <ol style="list-style-type: none"> <li>1. Mogelijkheden zal bieden om vooruit te komen en mijzelf te ontwikkelen.</li> <li>2. Rekening zal houden met mijn interesses bij het vaststellen van de nieuwe taakverdeling.</li> <li>3. Mij dezelfde beloning zal bieden voor het werk dat ik doe.</li> <li>4. Mij werkzekerheid zal bieden.</li> </ol>
<p>Job Stress (Schaufeli &amp; Dierendonck, 2000)</p>	<ol style="list-style-type: none"> <li>1. Ik twijfel aan het nut van mijn werk.</li> <li>2. Ik voel mij opgebrand door mijn werk.</li> <li>3. Aan het einde van een werkdag voel ik me leeg.</li> </ol>
<p>Age</p>	<p>1. In welk jaar bent u geboren? (open question)</p>
<p>Scenario 1 – Everyone sees this (T0)</p>	<p>Stelt u zich voor...</p>

	<p>Uw werkgever gaat de komende periode een grote reorganisatie tegemoet. Dit betekent dat er een turbulente tijd voor de deur staat. Er gaan veel veranderingen plaatsvinden waar u al dan niet mee te maken krijgt. Ondanks de turbulente tijd die de organisatie tegemoet gaat, heeft uw organisatie een aantal beloften aan u gedaan. Uw leidinggevende vertelt dat er in de voorlopige plannen voor de reorganisatie geschreven staat dat de salarissen onveranderd zullen blijven, en dat er géén gedwongen ontslagen zullen vallen.</p> <p>Daarnaast heeft uw leidinggevende u in een persoonlijk gesprek verteld dat er bij eventuele nieuwe taakverdelingen rekening gehouden zal worden met uw persoonlijke voorkeur en interesses. Ook zegt uw leidinggevende toe dat u de kans krijgt om uw leiderschapscapaciteiten verder te ontwikkelen door budget vrij te maken voor een training. Uw leidinggevende stelt voor om elke drie maanden even samen te zitten en bij te praten over de situatie rondom de reorganisatie.</p>
Scenario 2 – Fulfillment Werkgever (T1)	De afgelopen drie maanden heeft u een aantal keer langer doorgewerkt omdat u

	<p>vond dat het nodig was. Daarnaast heeft u, op verzoek van uw leidinggevende, de afgelopen maanden een paar keer suggesties gedaan voor het verbeteren van het werk van u en uw collega's.</p> <p>Na drie maanden worden de plannen voor de reorganisatie steeds concreter. Uw leidinggevende geeft aan dat uit de definitieve plannen blijkt dat de salarissen en het salarishuis inderdaad onaangetast blijven, dat betekent dat u in dezelfde salarisschaal zou blijven met dezelfde vooruitzichten op een jaarlijkse salarisverhoging. Ook is er geen sprake van gedwongen ontslagen; u kunt dus uw baan behouden.</p> <p>U heeft, zoals afgesproken, een persoonlijk gesprek met uw leidinggevende. In dit gesprek vraagt uw leidinggevende u om eens een overzicht te maken van alle taken die u leuk en uitdagend vindt. Op die manier kan uw leidinggevende bekijken wat de nieuwe taakverdeling moet worden. Ook vraagt uw leidinggevende u om met een concreet voorstel te komen wat betreft de training voor uw leiderschapontwikkeling.</p>
Scenario 2 – Breach Werkgever (T1)	De afgelopen maanden heeft u geen energie gestoken in het uitwerken van mogelijke

kwaliteitsverbeteringen van het werk van u en uw collega's, ondanks herhaaldelijke verzoeken van uw leidinggevende. Daarnaast heeft u geen gehoor gegeven aan de vraag van uw leidinggevende om een aantal keer langer door te werken omdat het nodig was.

Na drie maanden worden de plannen voor de reorganisatie steeds concreter. Tijdens een overleg geeft uw leidinggevende aan dat uit de definitieve plannen blijkt dat de salarissen en het salarishuis inderdaad onaangetast blijven, dat betekent dat u in dezelfde salarisschaal zou blijven met dezelfde vooruitzichten op een jaarlijkse salarisverhoging. Er wordt nu echter wel gesproken over gedwongen ontslagen, uw afdeling wordt zelfs concreet genoemd bij de plekken waar fte's moeten verdwijnen.

Ondanks de afspraak om elke drie maanden even een gesprek te hebben over de reorganisatie geeft uw leidinggevende aan dat hij er in deze turbulente tijd even geen tijd voor heeft. Uw leidinggevende geeft nog snel aan dat het door de recente ontwikkelingen waarschijnlijk is dat u, wanneer u mag blijven, er taken bij krijgt in plaats van dat er minder leuke taken bij u worden weggehaald. Wel vraagt uw leidinggevende u om met een concreet voorstel te komen wat betreft de training voor uw leiderschapsontwikkeling.

	<p>Dit scenario zal ook op de volgende pagina, voor elke vraag, weergegeven worden. Op deze manier kunt u het scenario eventueel nog doorlezen om de vragen optimaal te beantwoorden.</p>
<p>Scenario 3 – Fulfillment Werkgever (T2)</p>	<p>Het is oktober, en de afgelopen drie maanden bent u, in tegenstelling tot enkele collega's elke keer stipt op tijd op uw werk. En waar sommige collega's gewoon eerder naar huis gaan, bent u telkens gewoon aanwezig bij vergaderingen aan het einde van de dag. Uw leidinggevende heeft u in september gevraagd om een nieuwe collega wegwijs te maken door de organisatie en dat heeft u met veel plezier gedaan.</p> <p>Na zes maanden zijn de plannen voor de reorganisatie concreet geworden. Tijdens een overleg geeft uw leidinggevende aan dat uit de definitieve plannen blijkt dat de salarissen en het salarishuis inderdaad onaangetast blijven, dat betekent dat u in dezelfde salarisschaal zou blijven met dezelfde vooruitzichten op een jaarlijkse salarisverhoging. Ook is er uiteindelijk toch géén sprake van gedwongen ontslagen; u en uw collega's kunnen dus blijven</p>

	<p>samenwerken.</p> <p>Deze keer maakt uw leidinggevende wel uitgebreid tijd voor u. In dit gesprek vraagt uw leidinggevende u om eens een overzicht te maken van alle taken die u leuk en uitdagend vindt. Op die manier kan uw leidinggevende bekijken wat de nieuwe taakverdeling moet worden. Ook vraagt uw leidinggevende u om met een concreet voorstel te komen wat betreft de training voor uw leiderschapsontwikkeling.</p>
<p>Scenario 3 – Breach Werkgever (T2)</p>	<p>Het is oktober, en de afgelopen drie maanden bent u steeds vaker te laat op uw werk. Het is ook al een paar keer voorgekomen dat u een afspraak had aan het einde van de dag maar dat u toch eerder naar huis bent gegaan. Uw leidinggevende heeft u in september gevraagd om een nieuwe collega wegwijs te maken door de organisatie maar dit heeft u geweigerd, een andere collega moet het maar doen.</p> <p>Na zes maanden zijn de plannen voor de reorganisatie concreet geworden. Tijdens een overleg geeft uw leidinggevende aan dat uit de definitieve plannen blijkt dat de</p>

	<p>salarissen en het salarishuis inderdaad onaangetast blijven, dat betekent dat u in dezelfde salarisschaal zou blijven met dezelfde vooruitzichten op een jaarlijkse salarisverhoging. Er wordt nu echter wel gesproken over gedwongen ontslagen, uw afdeling wordt zelfs concreet genoemd bij de plekken waar fte's moeten verdwijnen.</p> <p>Ondanks de afspraak om elke drie maanden even een gesprek te hebben over de reorganisatie geeft uw leidinggevende aan dat hij er in deze turbulente tijd even geen tijd voor heeft. Uw leidinggevende geeft nog snel aan dat het door de recente ontwikkelingen waarschijnlijk is dat u, wanneer u mag blijven, er toch taken bij krijgt in plaats van dat er minder leuke taken bij u worden weggehaald</p>
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*Table 6: Items Experimental Vignette Study*

<b>Concept</b>	<b>Item</b>
Job Tenure	Hoeveel jaar werkt u voor uw huidige werkgever?
Aantal uren per week (Full-time/Part-time)	Hoeveel uren werkt u gemiddeld per week?
Temporary contract/Permanent contract	Heeft u een vast of tijdelijk contract bij deze organisatie?

### **Appendix C: Control Variables**

*Table 7: Control Variables*

## Appendix D: Factor Analysis Field Study

The second test is with all the items of job stress and all the items of the APC, expect item 8 of the APC. In this model, KMO (0.732) and Barlett's test ( $p = 0.000$ ) are both accepted. If you look at the Eigenvalue, there are now only 4 components used (see *Appendix E.1*, table 3). There are still one or more correlations above 0.3, which means that oblique factor rotation still fits. The communalities are also accepted, because every value is above 0.2. Next there should be looked at the cross loaders again. Item 12 of the APC has the smallest difference under 0.2 (0.012), which means that this one should be removed, and the factor analysis should be done again (See *Appendix E.1*, table 7).

The third test is with all the items of job stress and all the items of APC, expect items 8 and 12 of the APC. In this model, KMO (0.714) and Barlett's test ( $p = 0.000$ ) are both accepted. If you look at the Eigenvalue, there are now only 3 components used (see *Appendix E.1*, table 3). There are still one or more correlations above 0.3, which means that oblique factor rotation still fits. The communalities are also accepted, because every value is above 0.2. Next there should be looked at the cross loaders again. Item 15 of the APC has the smallest difference under 0.2 (0.014), which means that this one should be removed, and the factor analysis should be done again (See *Appendix E.1*, table 7).

This time the test is with all the items of job stress and all the items of the APC, expect the items 5, 8 and 12 of the APC. In this model, KMO (0.724) and Barlett's test ( $p = 0.000$ ) are both accepted. If you look at the Eigenvalue, there are now only 3 components used (see *Appendix E.1*, 3). There are still one or more correlations above 0.3, which means that oblique factor rotation still fits. The communalities are also accepted, because every value is above 0.2. Next there should be looked at the cross loaders again. This time there are also no cross loaders anymore, which means that the variables that are included in this test, will be assigned to one of the components.

KMO and Barlett's Test	Test 1	Test 2	Test 3	Test 4
KMO of Sampling	0.766	0.732	0.714	0.724

	<b>Approx.</b>	316.924	281.111	286.526	291.425
<b>Reliability Statistics</b>	<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha</b>			
		<b>if Item Deleted</b>			66
		0.616			
<b>EmoExh1</b>	<b>Sig.</b>	0.000	0.000	0.739	0.000
<b>EmoExh2</b>				0.391	
<b>EmoExh3</b>				0.356	

<b>Eigenvalue</b>	<b>Test 1</b>	<b>Test 2</b>	<b>Test 3</b>
<b>Component 1</b>	6.070	5.534	5.224
<b>Component 2</b>	2.064	1.986	1.986
<b>Component 3</b>	1.643	1.614	1.587
<b>Component 4</b>	1.064	1.015	0.997
<b>Component 5</b>	1.015	0.961	0.749
<b>Component 6</b>	0.646	0.645	0.632

Table 9: Eigenvalue

<b>Correlation Matrix</b>	<b>PCflwg3</b>
<b>PCflwg1</b>	0.373

Table 10: Correlation Matrix

<b>Communalities</b>	<b>Initial</b>	<b>Extraction</b>
<b>PCflwg1</b>	1.000	0.730
<b>PCflwg2</b>	1.000	0.724

Table 11: Communalities

<b>Pattern matrix</b>	<b>Component 1</b>	<b>Component 2</b>	<b>Component 3</b>	<b>Component 4</b>	<b>Component 5</b>
<b>PCflwg8 (test 1)</b>	0.098	-0.517	0.260	-0.514	0.019
<b>PCflwg12(test 2)</b>	0.340	-0.002	0.328	-0.168	-
<b>PCflwg5 (test 3)</b>	0.538	0.524	-0.062	-	-

Table 12: Cross loaders

## Appendix E: Reliability Statistics Field Study

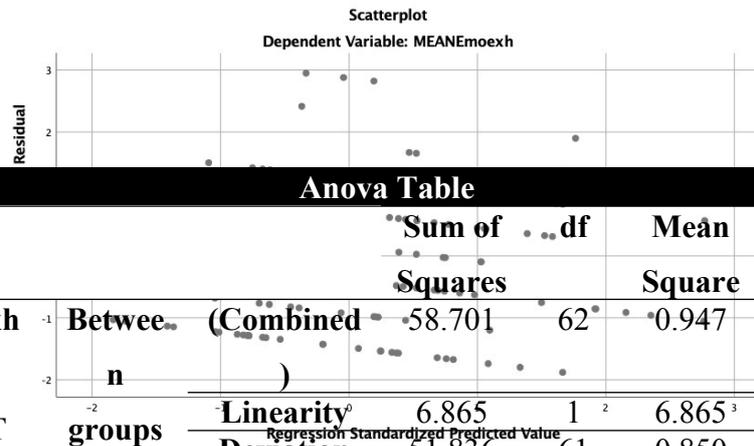
Table 13: Reliability Job Stress

<b>Reliability Statistics</b>	<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha if Item Deleted</b>
	0.871	
<b>PCflwg3</b>		0.880

*Table 14: Reliability Anticipation of Fulfillment*

**Appendix F:  
Multiple  
Regression**

**Assumptions  
Linear  
Field Study**



Anova Table						
		Sum of Squares	df	Mean Square	F	Sig.
MEANemoExh	Between groups (Combined)	58.701	62	0.947	1.126	0.295
	Linearity	6.865	1	6.865	8.168	0.005
	Deviation	51.836	61	0.850	1.011	0.474
	Within Groups	84.054	100	0.841		
	Total	142.755	162			

Table 15: Linearity Check

Normality Statistics			
	APC	Job Stress	Age
Skewness	-0.810	0.344	0.619
Std. Error of Skewness	0.190	0.186	0.185
2xStd. Error of Skewness	<u>0.380</u>	<u>0.372</u>	<u>0.370</u>
Kurtosis	0.687	-0.170	-1.313
Std. Error of Kurtosis	0.378	0.370	0.367
2xStd. Error of Kurtosis	<u>0.756</u>	<u>0.740</u>	<u>0.734</u>

Table 16: Normality Statistics

Figure 3: Homoscedasticity

Figure 4: Linearity check 2

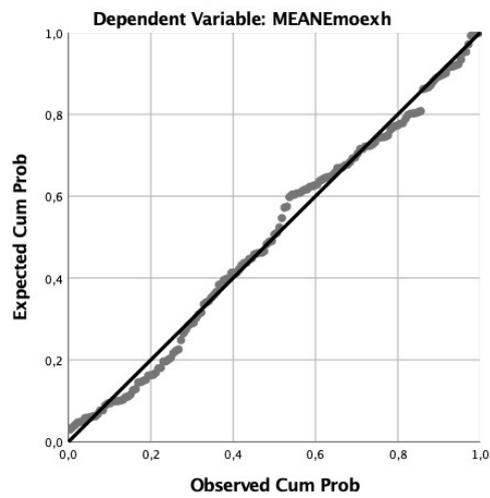


Table 17: Multicollinearity

Collinearity Statistics		
	Tolerance	VIF
Tenure	0.526	1.901
DummyTemporary	0.676	1.480
Urenweek	0.846	1.182
Age	0.511	1.957
APC * AGE	0.963	1.039

## Appendix G: Factor Analysis Vignette Study

KMO and Barlett's Test		Test 1
KMO of Sampling		0.787
Barlett's Test	Approx.	796.989
of Sphericity	Chi-square	
	df	21
	Sig.	0.000

Table 18: KMO and Barlett's Test

Eigenvalue	Test 1
Component 1	3.689
Component 2	1.467
Component 3	0.638

Table 19: Eigenvalue

Correlation Matrix	APCWG4_T2
APCWG2_T2	0.625

Table 20: Correlation Matrix

Communalities	Initial	Extraction
APCWG1_T2	1.000	0.780
APCWG2_T2	1.000	0.702
APCWG3_T2	1.000	0.695
APCWG4_T2	1.000	0.725
Jobstress1_T2	1.000	0.539
Jobstress2_T2	1.000	0.889
Jobstress3_T2	1.000	0.827

Table 21: Communalities

Pattern matrix	Component 1	Component 2
APCWG1_T2	0.917	0.092
APCWG2_T2	0.829	-0.021
APCWG3_T2	0.824	-0.022
APCWG4_T2	0.819	-0.073
Jobstress1_T2	-0.030	0.721
Jobstress2_T2	0.029	0.955
Jobstress3_T2	-0.003	0.908

*Table 22: Cross Loaders*

### Appendix H: Reliability Statistics Vignette Study

<b>Reliability Statistics</b>	<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha if Item Deleted</b>
	0.833	
<b>Jobstress1_T2</b>		0.922
<b>Jobstress2_T2</b>		0.625
<b>Jobstress3_T2</b>		0.704

*Table 23: Reliability Job Stress*

<b>Reliability Statistics</b>	<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha if Item Deleted</b>
	0.870	
<b>APCWG1_T2</b>		0.821
<b>APCWG2_T2</b>		0.841
<b>APCWG3_T2</b>		0.843
<b>APCWG4_T2</b>		0.832

*Table 24: Reliability Anticipation of Fulfillment*

## Appendix I: Assumptions ANCOVA Vignette Study

Normality Statistics				
	APCT1	Job StressT1	Age	Scenario's
Skewness	-0.283	0.038	0.909	0.403
Std. Error of Skewness	0.168	0.168	0.168	0.168
2xStd. Error of Skewness	<u>0.336</u>	<u>0.336</u>	<u>0.336</u>	<u>0.336</u>
Kurtosis	-0.559	-0.678	-0.664	-1.855
Std. Error of Kurtosis	0.335	0.335	0.335	0.335
2xStd. Error of Kurtosis	<u>0.670</u>	<u>0.670</u>	<u>0.670</u>	<u>0.670</u>

Table 25: Normality Statistics

Dependent Variable: job stress	Descriptive Statistics		
Dummy breach	Mean	Std. Deviation	N
Breach	3.608	0.88350	125
	0		
Fulfillment	3.017	0.82669	84
	9		
Total	3.370	0.90674	209
	8		

Table 26: Descriptive Statistics

Levene's Test of Equality of Error Variances (Dependent Variable: Job Stress)			
F	Df1	Df2	Sig.
.093	1	207	.761

ANOVA					
Age	Sum of Squares	Df	Mean Square	F	Sig
Between Groups	498.680	1	498.680	2.983	.90
Within Groups	35687.473	207	172.403		
Total	36186.153	208			

Table 27: Levene's Test

Table 28: Relationship Age and Job Stress