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Striving and Well-Being in a Vocational Setting:

Trainees' Personal Work Goals and Psychological Contracts

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1 Introduction

I would like to invite you to take the time to think about an important goal that you have in your life, which you are striving to achieve. I cannot guess what your goal is, but I can say that without it, your life would look and feel very different to you. Without your goal, the decisions you make regarding the most appropriate action to take in particular situations would be very different. Without it, your life-course may be dramatically changed – for better or for worse. We see first-hand that goals are crucial aspects of our lives. They are the moulds that shape our daily experiences and our life stories, motivating us into certain action and influencing our well-being.

Our goals range in content, encapsulating what we are currently aiming for, and what we wish to achieve, become, learn, maintain, gain or avoid in various areas of our lives (Brunstein, Maier & Dargel, 2007; Brunstein & Maier, 2002). Goals are motivators – they direct and guide our behaviour as we concentrate our efforts and attention on actions that are apposite to the goal rather than on actions irrelevant to the goal (Lord & Kernan, 1987; Locke & Latham, 1990, 2006; Michalak & Holtforth, 2006). We are aware of our own goals and strivings and try to weave behaviours that will help us to reach these goals into our schedules. Our goals are what give our daily lives structure and direction; because of them, we know what the end state that we are aiming for is, which helps us determine in which direction we should now be heading. Personal goals act as beacons by which to steer our behaviour.

People set goals in various areas of their lives including work, social, health, and familial domains (Little & Gee, 2007). Within these domains, goals can also be very diverse in nature. This diversity leads to each individual possessing an idiosyncratic collection of consciously chosen goals that they are currently striving for. This collection of goals, or 'goal set' provides purpose, structure and ultimately meaning to an individual's life (Cantor, 1990; Emmons, 1986; Klinger, 1977; Michalak & Holtforth, 2006). An important feature of a goal set is its temporal focus — the future. Brunstein and Maier (1996) state that a person's goal system can be conceptualised as their "future-oriented side" (p.146), whilst Oppenheimer (1987) sees this future-orientation as a key characteristic of goal directed behaviour. Indeed, even when we are striving to maintain the status quo (e.g. in a maintenance goal such as, "Continue being a supportive colleague") we are striving for the continuation of a situation in the future.

Our personal goals accompany us throughout our lives starting in early childhood and reaching into old age (Saajanaho, et al., 2016). I am sure you can recall being asked as a young child, "What do you want to be when you grow up?" which was essentially asking for your current personal career goal. Whether you actually ended-up in that career or not would have been dependent on a number of

factors impacting your development from child to adult. Personal factors, such as your personal value system, educational achievements, health status, waxing and waning interests, and your personality would have all played their parts. Environmental and social context factors, such as your upbringing and the family values bestowed upon you, your social class, the availability of money and other resources, and whether you were lucky enough to have supportive social and familial ties, and access to a thorough education may also have influenced your goal choice. My career goal growing up was to become a doctor, but a lack of flair for organic chemistry helped nudge me to another scientific career — studying people's mind and behaviours rather than their physical ailments. It is clear then that we do not all have the same personal pre-requisites, the same opportunities open to us and the same environmental features and resources in which to develop, and these differences permeate through to our goals, impacting them whether we realise it or not.

Personal goals are particularly important to healthy development during the adolescent years (Nurmi, 2001; Erikson, 1963). This is because in adolescence we encounter a number of major changes and decisions which are known as developmental tasks (Salmela-Aro, 2010). One developmental task facing adolescents who choose to leave an educational track and move to a vocational track is the transition from school to work. The adult world of work is a daunting one characterised by high expectations of performance and social competencies. Socialising into any new job brings with it challenges (Stumpp, 2006) but even more so if the job is a young persons' first foray into employment. Young people's personal goals are thought to play a large role during such dynamic transitional periods, offering a structure or framework in which to act which helps to guide the adolescents' behaviour (Dietrich, Jokisaari, & Nurmi, 2012; Marttinen, Dietrich, & Salmela-Aro, 2016; Flunger, Marttinen, Tuominen-Soini, & Salmela-Aro, 2016). Personal goals also play a significant role in identity formation and development during adolescence (Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013). This includes our work identity with our vocational choice being a means to achieve important personal goals (Astin & Nichols, 1964) and our personal work goals also framing our working days.

Surprisingly, although the adolescent years are so formative and vocational training programmes are a widely available option for young people there is very little research into the well-being and personal goals of vocational trainees. If studies are carried out investigating youths and their motivation, it tends to be on school pupils, which is evident from the sheer number of publications which focus on this group. At present, in Germany more than 1.5 million youths are pursuing a dual-system occupational training programme (BIBB, 2016). This three-year programme is characterised by a combination of on-the-job training and theory classes at vocational school. Trainees graduate from the programme as trained professionals, ready to join the workforce. My dissertation focuses on the experience of vocational trainees in Germany and their personal work goals and specific features of

their work contexts. How both the work context and the individual interact to affect behaviour is one of the general questions which I tackle with this project.

Prominent research into personal goals has emphasised the importance of making progress towards our important goals in order to flourish (Brunstein, 1993; Harris, Daniels & Briner, 2003; Diener, Suh, Lucas, & Smith, 1999; Klug & Maier, 2014). The links between our personal goals and our well-being is an important one with certain factors such as how committed we are to our goal and how easy it is to reach the goal in our present situation influencing this link. In this dissertation I take an in depth look at the link between vocational trainees' work goal progress and their well-being and also investigate specific contextual features of their environment which have an impact on this link.

Vocational trainees in the dual-system training programme have a lot to contend with. They are expected to learn all the different aspects of the job and are tested on the material regularly. In addition, they need to learn how to maintain good social relationships at work with their trainers, supervisors and colleagues whilst managing their own aspirations and expectations relating to work. This work context is the backdrop against which the vocational trainees chose and strive for their personal work goals. We build our goals in the space that is available to us, and at work this space is the work context with its resources and social context offering us opportunities and boundaries to work around.

One particular social work context which I concentrate on in this dissertation is the relationships that the vocational trainees have with their trainers. Firstly, I am interested in how supportive the trainers are towards their charges' personal work goals, but am also interested in a specific work context feature, psychological contracts. A psychological contract describes the exchange relationship between an employee and employer (Conway & Briner, 2005), or in our case a trainee and trainer. Employees do a lot for their employers, including trying hard, working well and accurately, perhaps putting in overtime and helping colleagues when they need it and employers offer a lot in return from a salary, to benefits, respect and a safe working environment. Employers and employees exchange these items with each other promising for instance, a salary for working hard. The psychological contract can explain behaviour in the workplace by looking at whether or not the promises have been fulfilled. If the promises are perceived to be broken, negative reactions and behaviours may be a consequence. In this dissertation my overarching aim is to test a theory that broken promises may make it difficult for the vocational trainees to pursue their personal work goals, as the work context would not be very facilitative to progressing towards the goal. This is likely to have negative consequences for the trainees in terms of their well-being and the way they view their work and lead to behavioural reactions to the broken promises and the lack of goal progress.

The first chapters of this dissertation provide the reader with an overview of the most important concepts in this project starting with personal goals. In chapter two I start by outlining the elements

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which make up personal goals. I then move on to present a number of traditional personal goal theories to give the reader a thorough grounding in the concepts surrounding personal goals. At the end of this chapter, I turn my focus to adolescent personal goals and discuss literature from developmental psychology which highlights the importance of personal goal pursuit in these formative years.

Personal goals have been linked to well-being and Chapter three takes an in-depth look at this link. I begin the chapter with an overview of well-being concepts in psychology and go on to outline what this means for personal goals. I then outline a number of goal theories which highlight the links between goal and particular aspects of well-being. As stated above, we all have very different personal goals and in Chapter three I outline research which investigates the impact that our goal contents can have on our well-being. I also discuss the content of adolescents' personal goals. I then go on to describe how our goals are contained in a hierarchical system, and how conflicts between our personal goals which are not compatible with each other can affect us negatively. This dissertation focuses on German vocational trainees in a work context and so I continue Chapter three by outlining the vocational training programme and its place in the German schools system. I then move on to discuss personal goals in the occupational domain and how they can affect well-being and job attitudes at work. I outline how different personal work goal attributes have been linked to well-being and then discuss the content of personal work goals in relation to well-being. Conflicts between our work goals and our family goals have been studied in occupational psychology in relation to work-life balance, and I summarise some of the most important findings from this area of research. Finally I end the chapter with a review of literature focusing on adolescents' work goals and how this impacts on having a meaningful life, and how personal work goals play an important role in the period of organisational socialisation.

In Chapter four, I review the literature base relating to psychological contracts. I start by defining the concept of psychological contracts and investigating their main elements: the how, the who, and the what. I outline research into how psychological contracts are formed, who is party to the contracts, what is promised within the contracts and how this has been categorised. I then move on to discuss the psychological contract's role in well-being focusing on the terms of the contract, the balance of the contact and the consequences of breaching the psychological contract. I end the chapter with a discussion of the possible role that psychological contracts play in vocational training and the importance of the psychological contract in organisational socialisation. I discuss the role that mentors, supervisors and role models play in dealing with psychological contracts and the way that the vocational trainees' youth and lack of tenure in the organisation may affect their reactions to breaches in their psychological contracts.

In Chapter five I link together the two main thematic areas of this dissertation: personal work goals and psychological contracts. I outline how the psychological contract can be seen as a contextual feature of the working environment which impacts on the young trainers. I go on to discuss how the personal work goals of the vocational trainees are framed within this work environment, and how the psychological contract may provide opportunities and constraints for these goals through fulfilled or broken promises. I then outline briefly how personal goals are viewed in the psychological contract literature. To end Chapter five, I outline my research objectives and approach and present my study aims and the mixed study designs I have chosen for this dissertation.

The empirical studies which I carried out are presented in chapters six, seven and eight. In Chapter six I describe the first study which was a qualitative interview study. This concentrated on the lived experiences of 10 vocational trainees in relation to their psychological contracts. Little research has been carried out into the psychological contacts of trainees and so this is an exploratory study with a descriptive nature. I describe how I used content analysis to examine the interview data and present the main finding stemming from this. These findings concentrated on promises made to the vocational trainees as part of their psychological contacts and how they viewed these promises. I go on to describe how I used the codes I extracted from this study to generate a new measure of psychological contracts that is specifically designed to capture the psychological contract content of vocational trainees and to assess the amount of psychological contract breaches trainees they generally experience.

The second study in my dissertation is a cross-sectional study which I present in Chapter seven. I present a short introduction which puts my hypotheses relating to possible antecedents and consequences of goal progress and psychological contract breaks into context. I also discuss the mediators and moderators which are tested in the study as they may influence the hypothesised links. I then outline the cross-sectional study method. This includes a description of the newly developed measure: the Psychological Contract Measure for Vocational Trainees. I describe a factor analysis process that I went through to reduce the number of items on the measure to improve its reliability. In the next sections of this chapter I present the results of a content analysis on the most important personal work goals of the 475 vocational trainees participating in the study, and present the results of the hypothesis testing. The results are then discussed paying particular attention to the psychological contracts and personal work goals of the vocational trainee participants, and the impact of these on the well-being and work attitudes of these workers.

The final study in my dissertation is presented in Chapter eight. This is a daily diary study which follows a group of 116 vocational trainees over a two-week period to investigate the consequences of promise breaks on the daily level for mood, work performance and effort, and personal goals. I outline the hypotheses which I test in this study and then go on to describe the analytical approach I used. I

chose to use multi-level modelling in this study and present the results of the multi-level testing in the results section. I continue by presenting the within and between results of the hypothesis testing and finally discuss what these results mean for the young trainees. I compare my results of this study to the two previous studies in this dissertation and discuss my findings in relation to previous research, thus putting my research in context.

The final chapter in this dissertation is the conclusion. Here I recap the most important results to emerge from the three mixed method studies and outline the advantages of triangulation between them. Whilst presenting the main results I refer to the impact of these on personal goal theories and psychological contract theory. I then go on to describe the practical implications of my results for the vocational training sector and give a number of recommendations for good practice which could be implemented in vocational trainees' places of work. I end the dissertation by outlining the limitations of the studies and by making a short closing statement.

In sum, in this dissertation which concentrates on German adolescents in a dual-system vocational training programme, I set out to investigate the links between the young peoples' personal work goals and their well-being, work attitude and behaviours. I investigate the impact of being committed to personal work goals and what the consequences are for the adolescents if they feel they are in a work situation with low chances of attaining their goals. I also take the contextual features of the working environment into account. The environmental feature that I focus on in this dissertation is the psychological contract. I investigate whether promises made to the vocational trainees are kept or broken and the consequence of this in terms of personal work goal facilitation, well-being and work attitude outcomes and the practical implications for this for practitioners working in the vocational training sector.

2 Personal Goals

When I was 16 I was invited to take part in a youth summit. The title of the week was, "Personal Goals in the Real World: Who We Are and What We Live By." The summit programme was designed and delivered by a group of youth leaders and adults and concentrated on themes relating to youth identity formation, personal values, commitment, overcoming hurdles and understanding how our values aid the creation of personal and meaningful goals. Although more than 20 years ago, I often think about the discussions I had there and still remember some of the powerful value driven personal goals of the other adolescent attendees. Sam, a cystic fibrosis sufferer had two personal goals that I can remember: he wanted to live to see his 21ˢᵗ birthday, and to make a difference to the world. Alex, was set on being a policeman despite his alternative non-conformist parents' objections. Whilst Jo, a political 17 year old, wanted to tour with his band as he said that by playing music he would avoid a desk job, which he believed would inevitably feed capitalism. Quite by chance two years later, I met Hannah, a fellow attendee, only this time we were not in a meeting hall in the middle of England, but hiking in the Annapurna mountain range in Nepal. One of her personal goals had been to see the Himalayas and mine was to teach English for a year abroad. Happily, we were both in the process of achieving these goals when our paths crossed for a second time.

I was struck during the summit by the sheer diversity of the youths' goals. As we discussed at length the reasons why these unique goals were important to each of us it was clear that our very different upbringings, schooling, values, health statuses and opportunities had played their part. Our personal goals can be powerful motivators in our lives. They shape our days helping us to decide which behaviours are the most important in a given situation, as we concentrate our attention on actions that will help us to achieve our goal. Had Hannah or I pursued different goals from the outset, we would never have had our chance meeting on the side of a snowy mountain. Our goals help us to choose which path to walk in life, both in the literal and metaphoric sense. That day, it so happened that Hannah's goals and my own had led us up the same very steep path.

This chapter is a theoretical one, in which I outline some classic theories of personal goal pursuit. Firstly, I present the elements of a personal goal and then go on to describe a classification of goal theories by Gollwitzer (1995). After outlining a number of theories of goals I then describe some of the similarities and differences between the theories. Finally, I turn to focus on the personal goals of adolescents, describing the importance of personal goals for healthy development.

Personal Goals are traditionally understood as being comprised of a triad of elements: cognitive, emotional and behavioural (Pervin, 1983; Elliot, Sheldon & Church, 1997). There are four cognitive features of a goal. Firstly, an internal cognitive representation of a future state; secondly, a cognitive

portrayal of the current state of affairs; thirdly, a cognitive representation of a discrepancy between the current state of affairs and the future state; and lastly, the strategies and plans that are laid out in order to reach the goal (Pervin, 1983). I present these four cognitive elements schematically in Figure 1 below, using an example goal of "*becoming friends with Jo*" for illustration purposes.
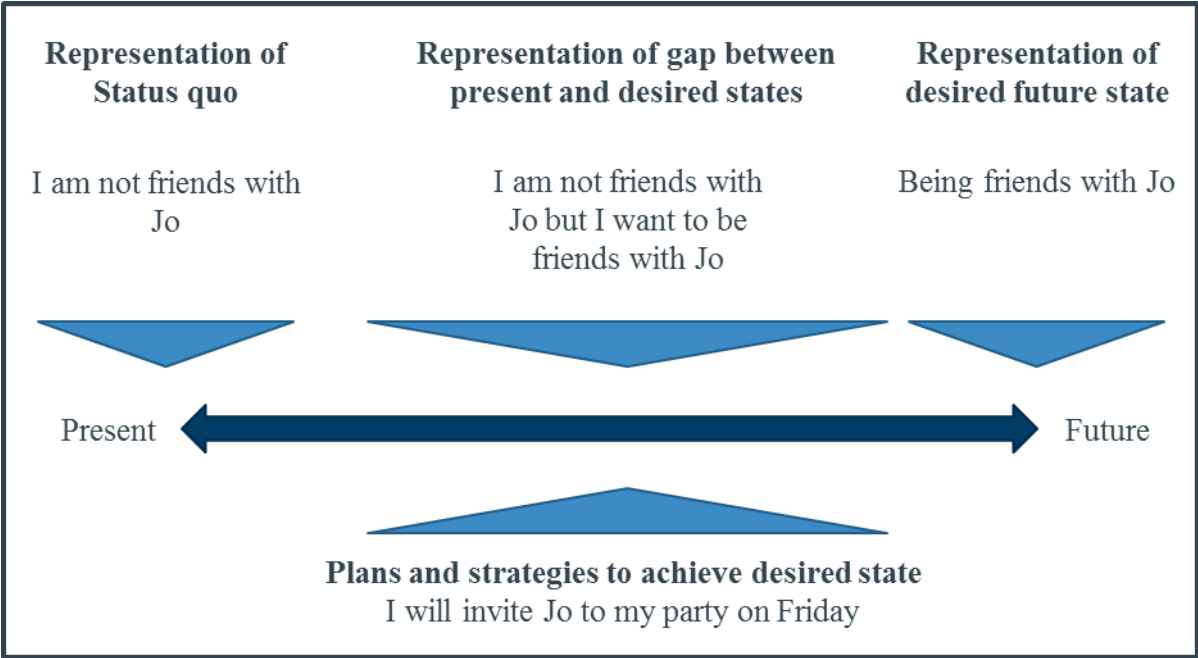
Figure 1. The four cognitive aspects of personal goals explained using the example of "becoming friends with Jo" (based on Pervin, 1983)

There are also emotional elements to goals (Pervin, 1983). Some of these emerge as an individual strives towards a goal, as the striving itself shapes our emotional experiences (Emmons, 1991; Cantor, Norem, Langston, Zirkel, Fleeson & Cook-Flannagan, 1991). The emotional factor is also reflected in the motivational pull that is an intrinsic element of the desired goal state, as well as the motivational pull that goal attainment presents, and the new opportunities that could follow this goal attainment.

The third strand of Pervin's (1983) conceptualisation is the behavioural aspect of goals. This is perhaps the most concrete of the components, as it is the most easily witnessed and measured. The behavioural component represents the actions that a person carries out that take them closer to the desired state of goal completion. These behaviours result from putting the cognitive strategies and plans to reach the goal, into action. If we refer back to the goal of becoming friends with Jo, (see Figure 1) a behaviour related to this goal, could be writing an invitation to Jo asking her to come to a birthay party.

Perhaps it is because of the triad of components (cognitive, emotional and behavioural) and the different levels of abstraction that goals offer, as well as their idiosyncratic nature, that goals have been approached from such a variety of theoretical standpoints over the years, from which an

assortment of definitions of goals has emerged. In their seminal review paper which covered a range of past and present concepts of goals, Austin and Vancouver (1996) defined goals as, "*Internal representations of desired states, where states are broadly construed as outcomes, events, or processes*" (p. 338). This definition of goals has become widely established within psychological literature (Emmons, 1986; Wiese & Freund, 2005; Salmela-Aro, Read, Korhonen, Vuoksoimaa, Rose & Kaprio, 2012; Hyvönen, 2011; Lüdtke, 2006). It includes the notions of cognitive representations that have an intrinsic motivational valence and is a sound starting point for goal researchers. I move now from the introduction and definition of goals, to theories of goals that have been influential in psychological research.

2.1 Goal Theories in Psychological Research

There have been various attempts over the years to classify the numerous modern theories of goals. These have resulted in several frameworks to compare and contrast the different approaches to goal research (Austin &Vancouver, 1996; Gollwitzer, 1995; Wiese, 2000). One such classification, which is both clear and concise, differentiates between four types of goal theories: content theories, motivational and volitional theories, cognitive theories and personality theories of goals (Gollwitzer, 1995). In the following section, I will outline the most salient features of each of these four categories and briefly present the most prominent goal theories in each category. I have also added a few newer studies to corroborate some of the theories with up-to-date results. Table 1 presents an overview of the four categories of goal theories, which I will discuss in this section.

Table 1. A classification of goal theories (Gollwizer, 1995; extended by Brunstein, Maier & Dargel, 2007 and the author)

Goal Theory	Author(s)
Content Theories of Goals	
Goal Setting Theory	Locke and Latham (1984,1990, 2002, 2006)
	Lee, Locke and Latham (1989)
	Gardner, Diesen, Hogg, & Huerta (2016)
Theory of Learning and Performance Goals	Dweck (1986, 1991, 1992, 1996, 2006)
	Cianci, Klein & Seijts (2010)
Theory of Approach and Avoidance Goals	Elliot and Harackiewicz (1996)
	Elliot, Sheldon and Church (1997)
	Elliot (1999)
	Girme, Overall, Faingataa, & Sibley(2016)
Self Determination Theory	Deci (1980)
	Deci and Ryan (1985, 2000)
	Jang, Kim, & Reeve, (2016)

Goal Theory	Author(s)
Motivational and Volitional Theories of Goals	
The Model of Action Phases	H. Heckhausen and Gollwizer (1987)
	J. Heckhausen (1999)
	J.Heckhausen, Wrosch and Schulz (2010)
The Action Control Theory	Kuhl (1987, 1994, 2001)
	Zimmerman (1990)
	Corno (2001)
	Reese, Pollert, andVeilleux (2016)
Cognitive Theories of Goals	
Social-Cognitive Theory	Banudra (1989, 1997)
	Bandura and Locke (2003)
Cybernetic Control Theory of Goals	Carver and Scheier (1981,1990, 1998)
	Harkin et al. (2016)
Auto-Motive Theory of Goals.	Bargh (1990)
	Bargh and Chartrand (1999)
	Bargh, Gollwitzer and Oettingen (2010)
	Bipp, Kleingeld, van Mierlo, and Kunde (2017)
Personal Goal Theories / Personality Theories of Goals	
Current Concerns	Klinger (1975, 1977)
	Klinger and Cox (2004)
Personal Projects	Little (1983, 1993, 2007)
	McGregor and Little (1998)
	Palys and Little (1989)
Personal Strivings	Emmons (1986)
	Emmons and King (1988)
Life Tasks	Cantor and Kihlstrom (1987)
	Cantor and Langston (1989)
	Cantor et al.(1991)
Possible Selves	Markus and Nurius (1986, 1987)
	Oyserman and Markus (1990)
	Layous, Nelson and Lyubomirsky (2012)
Developmental Goals	Heckhausen (1999)
	Heckhausen, Wrosch and Schultz (2010)
	da Silva, Boivin, and Gameiro (2016)

2.1.1 Content Theories of Goals

As the name suggests, the emphasis of goal content theories is on the contents of the goal with the main premise being that this content regulates peoples' behaviour. Goals differ from each other in

their content and this difference has an influence on the affective behaviours people display which result from the motivational *pull* of the goals.

Goal Setting Theory

Arguably, the best known of goal content theories is the Goal Setting Theory by Edwin Locke and Gary Latham (1984, 1990, 2002, 2006) which stems from occupational psychology. This theory is based on more than 400 laboratory and field studies (Locke & Latham, 2006), with various meta-analyses and literature reviews also supporting the theory (Latham & Lee, 1986; Tubbs, 1986; Locke, Shaw, Saari & Latham, 1981). In Goal Setting Theory, goals are the object or aim of an action and differ in their content on at least four dimensions: difficulty, specificity, complexity and conflict. Goals that are more difficult and specific lead to higher task performance than easier and vaguer "do your best" goals, or no goals at all (Locke, Shaw, Saari & Latham, 1981). These effects are moderated by the complexity of the goal (Wood, Mento & Locke, 1987), the presence of other conflicting goals, the intensity or commitment to which the goals are set and followed (Lee, Locke & Latham, 1989), and the presence and type of feedback provided (Locke & Latham, 2002).

Harder goals motivate individuals more effectively than easier ones as individuals must commit themselves and achieve more before they can be satisfied with their goal achievement (Lee, Locke & Latham, 1989). Thus, harder goals demand a higher level of action, which leads to higher task performance. Specific goals promote more affective performance than nonspecific goals because clear goal delineation enables the actor to identify, carry out and monitor the actions that are needed to attain the goal more effectively (Latham & Lee, 1986).

Goal-Setting Theory is certainly very well supported by a substantial amount of empirical research. For instance, in a recent experimental study medical students given goal setting training were weaker at learning how to use a medical camera and to tie surgical knots if they were trained in setting do-your-best goals rather than setting more specific performance goals (Gardner, Diesen, Hogg, & Huerta, 2016). Despite the extensive research into goal setting theory, a few questions are left unanswered by the approach: Which are the psychological mechanisms by which goals are transposed into actual action? How are goals related to motives? (c.f., von Rosenstiel, Kehr & Maier, 2000).

Theory of Learning and Performance Goals

A further content theory of goals is the theory of Learning and Performance Goals (Dweck, 1986, 1991, 1992, 1996, 2007). In performance goals an individual aims to prove the competencies that they already have and in leaning goals they aim to improve their competencies (Dweck, 1991, 1996). As these two aims differ on the qualitative level they also manifest different thoughts and actions linked to their goal pursuit (Dweck, 2002). Because of this, Dweck has endeavoured to pinpoint classes of goals and their specific goal pursuit characteristics. Two people carrying out the same task (for

instance, to read a difficult book) can frame it in different ways. Those with a performance goal may try to carry out the task in an attempt to increase others' positive assessments, or decrease negative assessments of their ability for instance, "*I will read the book to prove my reading ability*". Conversely, those with a learning goal may try to raise their competency levels and mastery of the task, for instance, "*I will read the book to get better at reading*" (Dweck, 2007).

Empirical support for this theory covers experimental (Elliott & Dweck, 1988), fieldwork (Dweck & Leggett, 1988), and longitudinal mixed method research (Grant & Dweck, 2003) mostly in schools or university settings. Significant differences were found between performance and learning goals in a number of factors, including the degree of doggedness shown when facing failure, the reasons attributed to goal failure and the affect experienced during the task (Dweck, 1986). These differences may stem from the different underlying concepts that individuals hold regarding ability, and competencies (Dweck, 2002). Individuals with an entity theory of ability (believing that ability is set and not easily changed) set more performance goals and process information by checking its relevance for assessing their ability. Conversely, individuals with an incremental theory of ability (believing that ability levels can rise through learning) are more prone to set learning goals and subsequently process information by checking its relevance for mastering the task competently (Dweck, 1981). Further, learning goal orientated individuals tend to view failure as an opportunity for development, resulting in increased effort, whilst performance goal orientated individuals tend to attribute failure to a lack of ability, and react helplessly (Dweck & Leggett 1988; Molden & Dweck, 2006; Grant & Dweck, 2003). This also seems to be the case when it comes to receiving negative feedback. Cianci, Klein and Seijts (2010) carried out an experiment and found that students given a learning goal rather than a performance goal were much less tense after being given negative feedback. These students then went on to perform better on the task. For highly conscientious students these results were amplified.

Although the differentiation of all goals into only two types of goal content within Dweck's theory seems rather simplified, it has proved to be an extremely useful conceptualisation especially within educational psychology. It is also has close parallels to mastery and performance goals (Ames & Archer, 1987, 1988) and task- and ego-involvement goals (Nicholls, 1984) which have added support to the performance goal versus learning or mastery goal dichotomy.

Theory of Approach and Avoidance Goals

Another goal content dichotomy is the Theory of Approach and Avoidance Goals (Elliot and Harackiewicz, 1996; Elliot, Sheldon & Church, 1997; Elliot, 1999). Approach goals encompass a positive action or state, for instance, *"I want to learn to be a good driver"*, whilst avoidance goals exemplify negative actions or states, for instance, *"Do not crash the car"*. The difference between these goal types stems from the regulatory focus and valence of the goal. In approach goals, self-

regulation involves striving to reach a covertet goal state (or to maintain a goal state), whereas in avoidance goals, it involves the evasion of a deleterious or detrimental goal state.

Research supporting this theory has been fruitful, with significant differences uncovered between certain outcomes and the two different goal types. Elliot and Church (1997) found a positive association between performance (students' end of term grades) and approach goals and a negative association between performance and avoidance goals. Elliot and Sheldon (1998) also found that people with a greater proportion of avoidance goals were less satisfied with their lives as a whole, and reported less progress towards their goals than those who had a greater proportion of approach goals. Similarly, students with a greater proportion of avoidance goals had lower satisfaction levels at the end of a semester than at the beginning, in comparison to students with a greater proportion of approach goals (Elliot & Sheldon, 1998). Interestingly, although avoidance goals generally seem to lead to less effective goal striving than achievement goals, in the case of relationship statuses this is not so. Singles tend to have lower satisfaction and physical health compared to those in a relationship (Diener, Gohm, Suh, & Oishi, 2000) but a recent study found that singles high in avoidance goals who strive to avoid relationship conflicts and disagreements were as satisfied as individuals in a relationship (Girme, Overall, Faingataa, & Sibley; 2016). Context then, seems important when considering goals.

Self Determination Theory

Deci and Ryan's (Deci, 1980; Deci & Ryan, 1985, 2000) Self Determination Theory (SDT) is a prominent theory in current psychological literature. SDT can be categorised as a content theory of goals (c.f., Gollowitzer, 1995) although it has both elements of process and needs theories. SDT highlights two main research questions regarding goal directed behaviour—"*what*" an individual is striving for (goal content), and "*why*" (reason). In SDT goals are considered in relation to three innate universal psychological needs. *Relatedness* is the need to connect with others, be socially included, and to be cared for and to care for others (Baumeister & Leary, 1995). *Autonomy* is the need for control over one's actions, and the desire to be the source of one's behaviours (Ryan & Decci, 1999; Ryan & Connell, 1989; Sheldon & Elliot, 1998). *Competence* is the need to have an effect on the environment (effectance) and to reach valued outcomes within that environment (Deci & Ryan, 2000). These needs are, "*essential for ongoing psychological growth, integrity, and well-being*" (Deci & Ryan, 2000, p. 229).

There are two types of goal content (*what*) in SDT—intrinsic and extrinsic aspirations (Kasser & Ryan, 1993, 1996). Striving towards and achieving intrinsic aspirations that tend to facilitate basic need fulfilment (e.g., personal growth and affiliation), gives rise to higher motivation, performance and well-being than striving for and achieving extrinsic aspiration with contents that do not aid the fulfilment of the basic needs (e.g., success, wealth, or fame) (Ryan, Sheldon, Kasser, & Deci, 1996; Deci & Ryan, 2000).

The motive behind the goal striving (*why*) and the extent to which individuals feel personally responsible for or in control of their goal choices are central to SDT. Individuals pursue goals for externally controlled or autonomous reasons. There are two controlled reasons, *extrinsic* (e.g., the situation where another person demands that I do this) and *introjected* (e.g., I would be ashamed if I did not do it), and two autonomous reasons, *identified* (e.g., I believe that this is important for me), and *intrinsic* (e.g., I find it enjoyable) (Ryan & Connell, 1989). One new study has found that students who viewed their teachers as autonomy supportive and helping to satisfy their needs tended to have rising engagement levels over a semester, whereas those perceiving their teacher as controlling and needs frustrating tended towards rising disengagement levels over the semester (Jang, Kim, & Reeve, 2016).

Researchers can judge a set of goals as being more or less self-concordant (i.e., in line with a person's core values and interests) depending on the ratio of autonomous verses controlled goals in the set (Ryan & Connell, 1989). More self-concordant goals correlate with higher well-being, vitality, and self-actualization, and lead to higher commitment levels and more determined goal striving (c.f. Sheldon, 2001). Perhaps due to this extra effort, self-concordant goals are positively linked with goal progress (Koestner, Lekes, Powers, & Chicoine, 2002).

Empirical support for the goal concept within the SDT is plentiful (Kesser & Ryan, 1993; 1996; Boggiano, 1998; Schmuck, Kasser & Ryan, 2000; Koestner et al., 2002; Ryan & Connell, 1989). Nevertheless, little empirical work has been done on bringing the *what* and the *why* parts of the theory together.

2.1.2   Motivational and Volitional Theories of Goals

In motivational and volitional goal theories, goals, and a person's plans to reach them, are framed as expounded needs. The extent or intensity of the actions a person takes towards their goals is thought to be driven by their motivation to reach the goal and by the plans that are the foundations to these actions. The term motivation traditionally refers to phenomenon of choosing goals to act upon and the assessment of the reached or failed goal. Volition, on the other hand, describes the phenomenon surrounding the actual striving for and realisation of the goals (Brandstätter, Achtziger & Gollwitzer, 2011).

The Model of Action Phases

Heinz Heckhausen and Peter Gollwitzer originally posited the Model of Action Phases in 1987 with Jutta Heckhausen and colleagues developing it further and intergrating it into a larger motivational theory of life-span development (Heckhausen, 1999; Heckhausen, Wrosch & Schulz, 2010). I present the full model in Section 2.2.2.1. In short, the Model of Action Phases separates goal directed action into five consecutive action phases from a *pre-decisional* to a *post-actional* phase (Heckhausen, 1999).

The model features a point of no return, or a Rubicon, which delineates a shift from a motivational to volitional phase of goal striving. Please see Section 2.2.2.1 for a full description of this model.

Action Control Theory

A further motivational and volitional goal theory in Gollwizer's classification (1995) is the Action Control Theory by Kuhl (1987). This model's key elements are intentions, called *"activated plans"* (Kuhl, 1987; p. 287). To pursue a goal an individual needs to activate two systems: the motivation or intention memory system, and the action or extension memory system. Once action (i.e. goal pursuit) starts, the motivational system has a maintenance role: an action control feature that works continually to sustain and re-energise the goal pursuit whilst protecting it by shielding it from any other goals contending for resources.

The success of the shielding depends on whether an individual has an action control orientation or a state control orientation (Kuhl, 1994). Those with an action orientation typically focus on realistic and fully developed plans of action, are inclined to react dynamically and flexibly in changing situations, and complete their plans of action. Individuals with state orientations focus on states. These include past states (often remembering a failure), the present state (often ruminating on the status quo), and future states (often focusing on unrealistically high goals). Such individuals are disadvantaged, as they tend to worry about making mistakes and failing, instead of taking positive actions and progressing towards their goals. Kuhl (1994) presents these orientations as being trait-like to some extent.

One widely acclaimed strand of Kuhl's (1987, 1994) research stemming from Action Control Theory are six action control strategies. These are motivational strategies used to enable successful focus on the goal at hand and promote goal progress and are presented in Table 2 below. These active control strategies have been found to be effective in behaviour control (Kuhl, 1987), and more recently when striving within educational settings (Corno, 2001; Zimmerman, 1990). They have also been found effective for clinical patients, such as in eating disorders, where emotional control strategies were recently associated with lowered binge eating episodes (Reese, Pollert, & Veilleux, 2016).

Table 2. Six Action Control Strategies and their Definitions (Kuhl, 1994)

Action control strategy	Definition
Selective Attention	Willfully ignoring alternative actions to focus fully on the goal action
Encoding Control	Only coding features of a stimulus that are relevant to the goal
Emotional Control	Willfully generating and focussing on positive emotions conducive to goal progress. Intentionally supressing negative emotions not beneficial to goal progress
Motivational Control	Reinforcing the importance of the goal intention—particularly when the original goal was week
Environmental Control	Moulding the environment (social and physical) to facilitate goal progress, e.g., creating social pressure and accountability by telling friends of intentions, or removing uncontrollable distractions from the environment
Parsimonious information processing	Judging when to stop collecting information and start acting upon the information. Deciding on active behaviours that promote progress towards the goal

2.1.3 Cognitive Theories of Goals

In cognitive theories, goals are cognitive benchmarks or performance standards by which individuals can measure their behaviour. Goals are not deemed to have any motivational powers and are not considered representations of valued outcomes or states, but are simply viewed as yardsticks by which to monitor our actions.

Social-Cognitive Theory

Bandura (1989) put forward the Social-Cognitive Theory of goals, claiming that a root of purposeful action lies in the human ability to generate their own motivation through proactive control. Bandura states that through "*cognitive representation in the present, conceived future events are converted into current motivators and regulators of behavior.*"(Bandura, 1989, p. 19).

There are two process systems in this theory (Bandura & Locke, 2003). Firstly, a proactive *discrepancy production system* meaning through proactivity and forethought people set themselves goals that contain a discrepancy between the actual state of affairs and the goal state. Through discrepancy production, individuals set themselves challenges giving their behaviour direction. They produce self-incentives themselves to act in ways that bring them closer to their goals (Bandura & Locke, 2003). The second process system is a *reactive discrepancy reduction system* (Bandura, & Locke, 2003). Once an individual starts to act upon a goal with the amount of effort that they estimate to be sufficient, they also need to look for and react to feedback to check that this effort is adequate. If

it is not adequate, they need to adjust their effort and goal-directed behaviour to eliminate the discrepancy. This reactive feedback control and goal directed behaviour continues until a person's actions or performance meet their goals (Bandura, 1989). Feedback on how one is fairing is imperative, as merely taking on a goal has no long lasting motivational impact (Bandura 1989). Empirical work supports this premise, with feedback coupled with a goal leading to more effective performance than a goal alone, feedback alone or no goal or feedback (Bandura & Cervone, 1983).

In addition to these systems of goal setting (discrepancy production), and goal striving and adjustment (discrepancy reduction), self-efficacy is also central to Bandura's Social-Cognitive Theory (1998, 1997; Bandura & Locke, 2003). Individuals choose the level of difficulty of their goals depending on their levels of self-efficacy (peoples' beliefs regarding their own abilities and effectiveness). Individuals with high self-efficacy set more challenging goals for themselves (Bandura & Cervone, 1986), tend to believe they will be successful after reaching their goal (Bandura, 2001), tend to try harder when facing hurdles to the goal and tend to persevere and subsequently reach a goal when first attempts are unsuccessful (Bandura, 1997).

Cybernetic Control Theory of Goals

The Cybernetic Control Theory of Self-Regulation by Carver and Scheier (1981) is also a cognitive theory, with discrepancy reduction and feedback as important aspects, although feedback plays a more important role here than in Social Cognitive Theory. Within this model, goal directed action is a consequence of feedback control (Carver & Scheier, 1981, 1990, 1998). As people progress towards their goals, they utilise a negative feedback loop that reduces discrepancies between present and desired states. Within the Cybernetic Control Model, a current goal is a *'reference value'* and the basis of the feedback loop (Carver & Scheier, 1981). People repeatedly compare the reference value against the present state of affairs or '*input functions*'. If individuals detect a discrepancy between the reference value and the input function, so between the desired goal state and actual state of affairs, they adjust their behaviour to reflect the reference value more effectively. This adjustment behaviour is called '*output function'* (Carver & Schier, 1990*)*. The feedback loop is depicted in Figure 2 below.

Although this feedback loop is similar to the feedback and discrepancy reduction in Bandura's (1989) Social-Cognitive Model, in the cybernetic model there are also behaviour hierarchies (Carver & Scheier, 1990). Behaviours higher up in the hierarchy are less concrete. Muscle actions or movement sequences make up the bottom hierarchical level, above that are programmes, which are behavioural actions or concrete activities and above that are principles which reflect qualities that are reflected in many of our daily activities (such as honesty and integrity). The highest level in the hierarchy consists of global values known as system concepts. If an individual identifies a discrepancy on one level, they reset the reference value (goal) at the next lowest level (Carver & Scheier, 1990). For instance, if my goal is to "be a good driver", and I find I am not getting better at driving, I would review a goal on a

lower level in the hierarchy, for instance "practice driving every week" and alter it to serve the higher goal more effectively, e.g., "practice driving every day". I discuss the hierarchical nature of goals more thoroughly in Chapter 3.
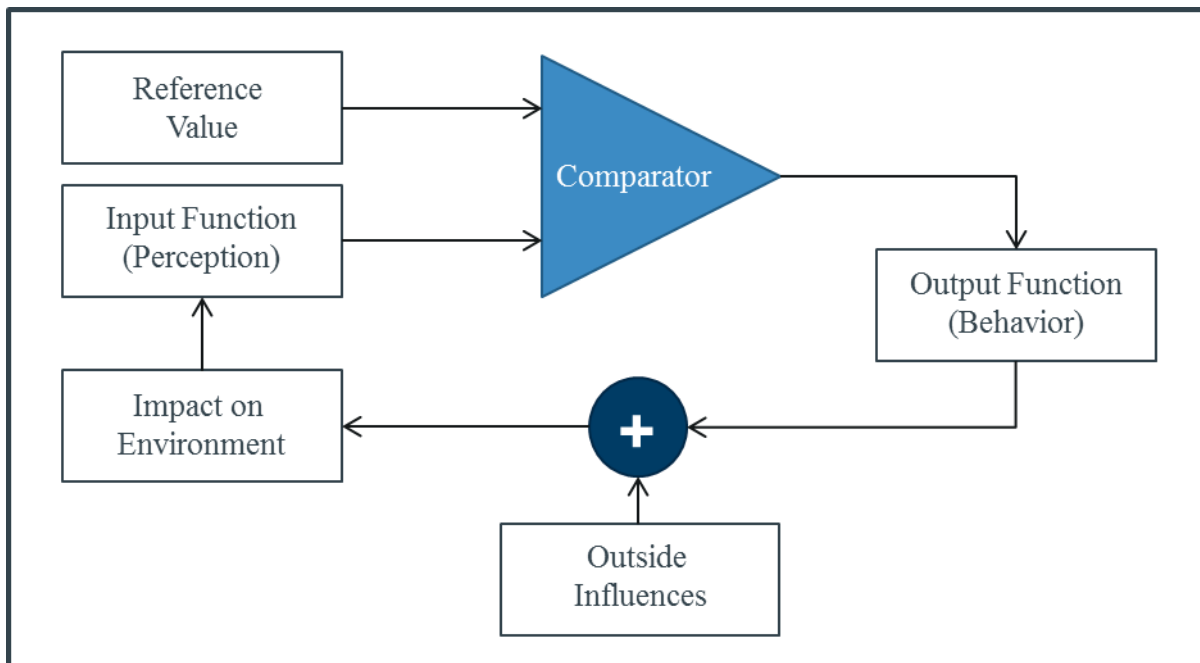
Figure 2. A cybernetic control feedback loop (Carver & Scheier, 1990, p. 20)

There is an additional meta feedback loop in Carver and Scheier's (1990) model, that made it very influential regarding how people's goals link to their emotions and well-being. This additional process is as a monitoring system for the feedback loop checking on progress in reducing the discrepancies and the speed this is or is not occurring. If people make progress and do this quickly, this has a positive impact on our emotions and if not then a negative emotional reaction is a consequence (Carver & Schier, 1998).

A recent meta-analysis by Harkin et al. (2016) studying feedback in goal striving found support for Carver and Schier's (1990, 1998) model. Feedback was found be important for goals as most of the studies analysed found that feedback interventions improved goal attainment. In addition, Harkin et al. (2016) found that the more individuals self-monitored their progress towards their goals the greater their increase in goal attainment. Making the goal outcomes public and physically writing down the information pertaining to goal progress moderated the effects of progress monitoring and goal attainment. This indicates that feedback gained through progress monitoring is an effective strategy to increase goal attainability.

Bargh and colleagues (Bargh, 1990; Bargh & Chartrand, 1999; Bargh, Gollwitzer & Oettingen, 2010) followed a very different line of research, investigating whether goals could be automatic. He theorises that people can follow goals completely nonconsciously with the environment triggering goals that are then activated and pursued automatically, without the individual even being aware of it. Bargh's work (Bargh, 1990; Bargh & Chartrand, 1999; Bargh, et al., 2010) indicates that if a person repeats a goal often in a situation, that goal can be automatically activated when a prominent feature of that environment is present. This automaticity of goals is central to Bargh's model known as the Auto-Motive Model.

Alongside goal activation, the making, planning and evaluation stages of the goal cycle can also be automatic—without any conscious guidance (Bargh, 1990; Bargh & Chartrand, 1999; Bargh, et al., 2010). Bargh (1990) describes this as '*bypassing the will'* (p.469). In a series of priming studies, Bargh and Chartrand (1999) found that participants acted upon conscious and unconscious goals similarly. Participants primed in a goal, but not actually aware of it, made similar responses to participants who were aware of the goal. This automatic goal cycle is discussed in terms of the limitations in human capacity for conscious self-regulation, concluding that reserving conscious goal behaviours for conditions where the same choice is not made each time and there are real decisions to act on is an effective mechanism (Bargh, 1990). More recently a study has shown that high-school students who were primed with achievement-related photos achieved higher grades than their peers who were in two control conditions (Bipp, Kleingeld, van Mierlo, & Kunde, 2017). The priming of automatic goals also seems effective in a tertiary setting. University students who were primed with a photograph of a specific and difficult goal rather than a general achievement photograph performed significantly better than their peers.

2.1.4   Personal Goal Theories

The Personal Goals Approach (or Personality Theories of Goals) constitutes the final group of goal theories in Gollwitzer's (1995) framework (c.f., Dargel & Brunstein, 2005). Personal goal theories focus on what people are attempting to achieve, reach and avoid through their behaviour. Central to these theories is that features of their personal goals can influence people's subjective well-being. The main premise is that people are future orientated and self-motivated, and try to actively mould their lives to their liking by filling their lives with meaningful activities. Brunstien and Meier (2002) highlight the creative process attached to personal goals starting with the generation of meaningful strivings, followed by the construction of plans of how best to come closer to achieving these goals.

In 1955, Kelly famously noted that most motivational theories of the time were of the 'carrot or stick' variety, relying on incentives and drives as explanations for behaviour. The personal goals approach to motivation does not rely on current stimuli: neither the external pull from an environmental reward,

nor the internal stimulus of a drive has an explanatory focus. Personal goals research conceives a person's behaviour as constituting more than a mere reaction to a present stimulus, fixed action patterns or reflexes with the understanding that a number of behavioural pathways could lead to the completion of a personal goal (Pervin, 1989).

At present, there are six well-established concepts of personal goals: *current concerns, personal projects, personal strivings, life tasks, possible selves and developmental goals* (Brunstein, Maier & Dargel, 2007) which I discuss below. Although there is some overlap in these goal theories, each do have their individual stance and differ subtly from each other (Brunstein & Maier, 2002).

Current Concerns

A current concern is a latent processes between becoming committed to a goal, until the goal is reached or the individual 'lets go' of it (Klinger and Cox, 2004). Once someone commits to a goal their thoughts, actions and emotions are drawn to cues associated with their goal. This increases the individual's effectiveness in goal pursuit—even when not consciously thinking of the goal, they are in a state of readiness. People tend to have more than one current concern at a time which can range from the everyday task level (e.g. *make the beds)* to larger long term targets (e.g. *become a good teacher*) (Klinger & Cox, 2004).

Once a person commits to a goal, barriers to that goal can result in frustration, leading to increased goal pursuit as an individual increases their activities in an attempt to overcome the hurdle (Klinger, 1975). Individuals will search for alternative ways to reach the goal, enlisting help and pouring in extra effort into navigating the problem (Klinger & Cox, 2004). This extra activity may lead to fulfilment of the goal, but not all hurdles can be overcome in this way. If not, anger and frustration can follow leading to reduced activity as fatigue and despondency set in (Klinger & Cox, 2004). If at the end of this cycle the circumstances force a person to give up or *disengage* from their goal, a negative, depressed mood is a likely result. After some time (dependent on how monumental the failure was) the individual recovers from the disappointment and their mood and activity level return to normal and they choose another goal to commit to. This cycle of commitment, strivings, barriers and disengagement, is the *Incentive-Disengagement Cycle* (Klinger, 1977) and is depicted in Figure 3. Although this cycle describes distinct phases, the phases flow seamlessly into each other and sometimes overlap; whilst under exceptional circumstances an individual may skip a phase completely.

Whenever hurdles appear, the incentive-disengagement cycle is triggered, regardless of the severity of the failure or the importance of the goal (Klinger, 1977). As people have multiple current concerns, they are likely to be in different phases of goal pursuit or the incentive-disengagement cycle with different goals. Progress made towards one goal can potentially lift the disappointment caused by a

barrier in another goal (Klinger, 1977). This acknowledgement of multiple concerns is a positive feature of the current concerns research, as many goal theories focus on single isolated goals, which is rather unrealistic.
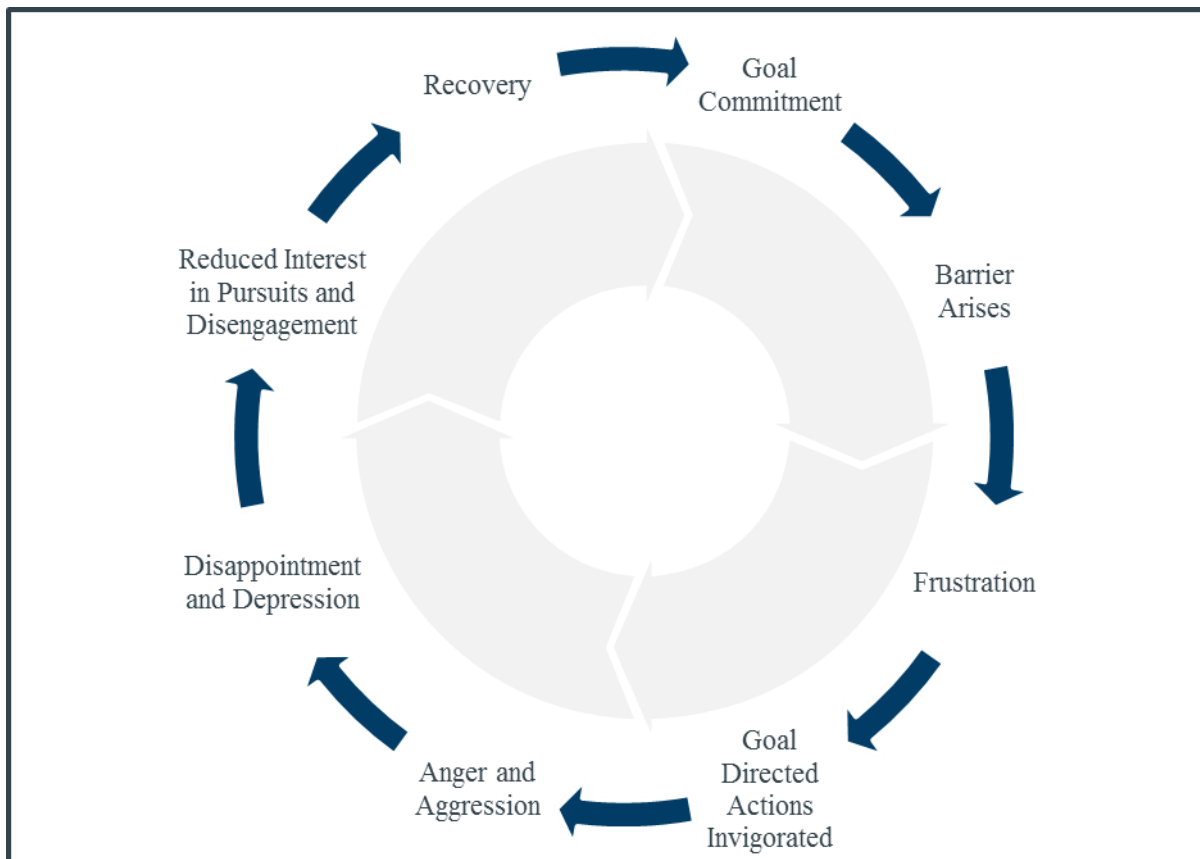
Figure 3 The Incentive-Disengagement Cycle (Author's own depiction based on Klinger and Cox, 2004)

Personal Projects

A second approach to personal goals is Personal Projects (Little, 1983, 1993, 2007; Palys and Little 1989; McGregor and Little, 1998). Little (1983) describes personal projects as "*a set of interrelated acts extending over time, which is intended to maintain or attain a state of affairs foreseen by the individual*" (p. 276) and as, "*extended sets of personally salient action in context*" (Little, 2007; p. 20). Within the social-ecological model in which this theory was developed, personal projects are the way that people deal with the demands put upon them by the environmental, social, cultural, and biological systems in which they live (Little, 1993; 2007) (see Figure 4). A personal project encompasses cognitive, behavioural and affective reflections of actions (Little, 1983) and is partly a result of dynamic and stable personality and contextual features.
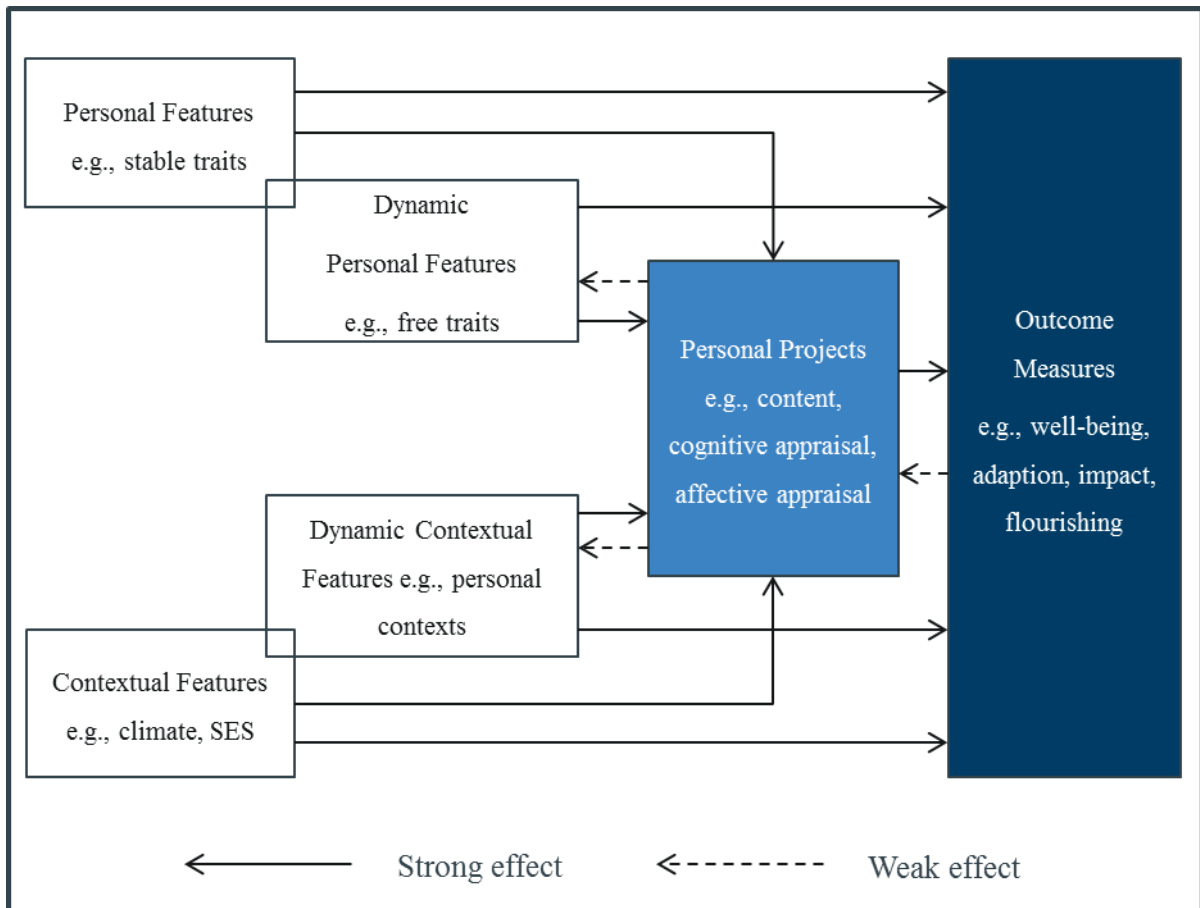
Figure 4. The Social Ecological Model of Personal Projects (Little, 2007, p. 39)

Personal projects, are differentiated from momentary behaviours as they typically stretch from hours, weeks or years and, unlike behaviours, are intentional, volitional and cognitive (Little, 2007). Personal projects tend to constitute sets of actions rather than single acts and can range in size and complexity from a succinct and straightforward project, (e.g. make a birthday card) to the more grandiose (e.g. win a Nobel Prize). In fact, Little (1989) speaks of "*magnificent obsessions and trivial pursuits*" (p. 15) which can represent core parts of an individual's life.

Little (2007) distinguishes between a person's core projects and their secondary more superficial personal projects. Core projects are of high importance to individuals and likely influence and even hold together the other projects in an individual's goal system. If one were to forgo one of these core projects, the entire goal system would be dramatically different (Little, 2011). These core projects give individuals a sense of coherence in their lives, with successful and balanced striving towards these central projects being instrumental for well-being (McGregor & Little, 1993).

In his early work, Little (1983) presented a four-stage model of personal project development which individuals pass through chronologically: inception, planning, action and termination. In later works

this sequence fell by the wayside with topics of flourishing and well-being, methods of personal project analysis and the importance of core projects taking the focus of the research.

Personal Strivings

Emmons put forward his theory of personal strivings in 1986. Personal strivings are what an individual is *"characteristically trying to do"* (1986, p. 1059). These strivings are key to our behavioural choices—they guide our actions and constitute what a person is trying to be or pursue (Emmons & King, 1988).

Personal strivings are more long-term than current concerns or personal projects. There may not be an end-point to the striving at all, with a continual progression or improvement also classified as a personal striving. Emmons gives the following examples of personal strivings: to do things efficiently and to be physically attractive (1986); and to be better than others (Emmons & King, 1988). Individuals can attain their personal strivings through a number of routes paved by differing goals (Emmons, 1991). For instance, a personal striving to '*become more attractive*' could have a cluster of beauty related goals associated with it (e.g., *to go to the gym*; *to carry out a regular beauty routine*; and *to get contact lenses*). Thus, personal strivings help to organize and synthesise an individual's goals.

Emmons sees personal strivings as suitable level of analysis, as they are deeper rooted and more secure than goals (which are on a lower level of analysis) or plans (on an even lower level and prone to fluctuation). Strivings are a more precise unit of measurement than higher-level nomothetic motives (Emmons & King, 1988). Personal strivings may be able to connect the ideographic and the nomothetic descriptive levels because although each individual has a unique set of strivings these are thought to display our individual reactions to underlying nomothetic motives such as intimacy, achievement and affiliation (Emmons, 2006).

Life Tasks

Unlike personal strivings that encompass what a person typically or characteristically tries to achieve, life tasks tie-in with particular stages of a person's life. A person's current life tasks are *"the set of tasks that the person sees himself or herself working on and devoting energy to solving during a specified period in life"* (Cantor, Norem, Niedenthal, Langston, & Brower, 1987, p.1179). The premise behind the life task approach is that for a specific age and social group there exists a common understanding of which goals are appropriate to pursue in that environment (Cantor, Norem, Langston, Zirkel, Fleeson & Cook-Flannagan, 1991). A group of first semester university students beginning their studies may have life tasks such as '*to gain independence*', '*to learn to live without parental support*', '*to become academically independent*' and '*to make new friends*'.

Life tasks are a product of the features unique to each individual, and the cultural context in which they live (Cantor et al., 1991). Although life tasks are common for a specific age grade, there is variety in the way that individuals approach them, with each person using unique strategies and emphasising different goals. These differing choices may stem from dispositional differences in social motives, differences in family values, and differences in the shared interests in a particular peer group, as well as different environmental constraints or opportunities (Cantor et al., 1991).

Life tasks combine goal pursuit with elements of problem solving, as individuals must forge unique strategies to complete the life task and reach their intended goal (Cantor & Langston, 1989). Individuals differ in their strategic choices regarding which actions to take, as they interpret and manage the challenges faced and by the importance of life tasks differently. The choices individuals make influence the way they organise their daily activities, placing more importance on those activities, which help to complete the task. In this way, although the cohort has a common cluster of life tasks, individuals approach these tasks very differently in their everyday lives (Cantor et al., 1991).

Possible selves

The concept of possible selves (Markus & Nurius, 1986) is also classified as a personal goal theory (Brunstein, Maier & Dargel, 2007). As future orientated individuals, people have many visions of how their lives could develop. A music student, for instance, could imagine becoming a music teacher, a world famous performer, or a homeless busker. Such visions of how our lives could develop and what different types of people we could become are our possible future selves. Possible selves are, "*cognitive manifestation of enduring goals, aspirations, motives, fears, and threats*" (Markus & Nurius, 1986, p. 954).

An individual's personal catalogue of their possible selves is a product of their long-term wishes, hopes, motives, fears and threats (Markus & Nurius, 1986). There are three important possible selves for motivating action: the expected, the hoped for, and the feared possible selves. The expected possible self represents who we believe we are likely to become in the future (e.g., a music teacher). This can be a positive or negative conceptualisation of what is in store for us (e.g., an inspiring music teacher or a bored and frustrated one) (Carver, Reynolds & Scheier, 1994). Expected selves guide individual's strivings—people make plausible and realistic goals and shape their daily behaviours to reach these ends (Markus & Nurius, 1986).

Hoped for possible selves are visions of what we wish or hope to become and may be far from realistic (Oyserman & Markus, 1990). Our music student ambitiously hoped for possible self is to become a world famous performer. If she had a more realistic vision, the likelihood that she would start to form concrete goals and plans and direct her behaviours in that direction would be higher. Once goals and

plans are in place, realistic hoped for possible selves can develop into expected selves (Oyserman & Markus, 1990). Unrealistic hoped for selves are not tangible enough for concrete plans and goals to be made around them as the motivational controls are lacking. Therefore, people are less likely to reach unrealistic hoped for selves as realistic ones or expected possible selves (Oyserman & Markus, 1990).

Lastly, the feared possible self represents the self that we never want to become. Our music student's feared possible self could be to be homeless, resorting to busking on the street for survival. Feared possible selves are also motivators as individuals choose behaviours and actions that steer them away from these ends and more towards the expected and hoped for possible selves and a more positive future.

Possible selves have been used successfully as part of a happiness-increasing activity. Layous, Nelson and Lyubomirsky (2012) carried out a four-week-long experiment where participants wrote extensively about their best possible selves once a week. The results showed that focusing on their best possible self in this way did lead to boosts in satisfaction scales. The best possible self activity lead to increased positive affect and flow, and marginally increased feelings of relatedness. The results were no different for those who carried out the writing task online or using paper-and-pencil questionnaires. The results indicate that our possible selves can be used as a tool for increasing our well-being.

Developmental goals

A personal goal theory emerging from developmental psychology is Developmental goals (Heckhausen, 1999). Developmental goals are desired outcomes of life-course transitions and developmental processes, strongly influenced by developmental tasks. These goals are set out by society as being appropriate for a given age period or life course transition. Individuals adopt and strive towards developmental goals to act agentively and influence their development trajectories (Heckhausen & Schulz, 1999). Developmental goals focus on developmental processes and attainments especially transitions (e.g. find a partner; finish schooling; become more responsible) and tend to be concerned with either the current or next developmental phase of life (e.g. within adolescence, or from adolescence to young adulthood) typically having a temporal extension of 5-10 years (Heckhausen, Wrosch, & Schulz, 2010).

Not all goals can be attained at all points in life, for instance one cannot start full-time employment in a dream job until finishing school, or attain a driving licence without reaching the legal driving age. The life course, therefore, has a rough structure that is characterised by an age-graded framework and certain developmental deadlines (e.g., a woman cannot get pregnant after the menopause). According

to Heckhausen our development advances in cycles of goal engagement and disengagement[1] with developmental goals representing opening and closing windows of opportunity where the space to realise the goals grows, peaks and then decreases over time sometimes ending in a developmental deadline (Heckhausen, 1999; Heckhausen et al., 2010). The following figure (Figure 5) depicts a typical age-graded sequence of windows of opportunities over the life-span to achieve certain age related goals such as getting married and having a child.
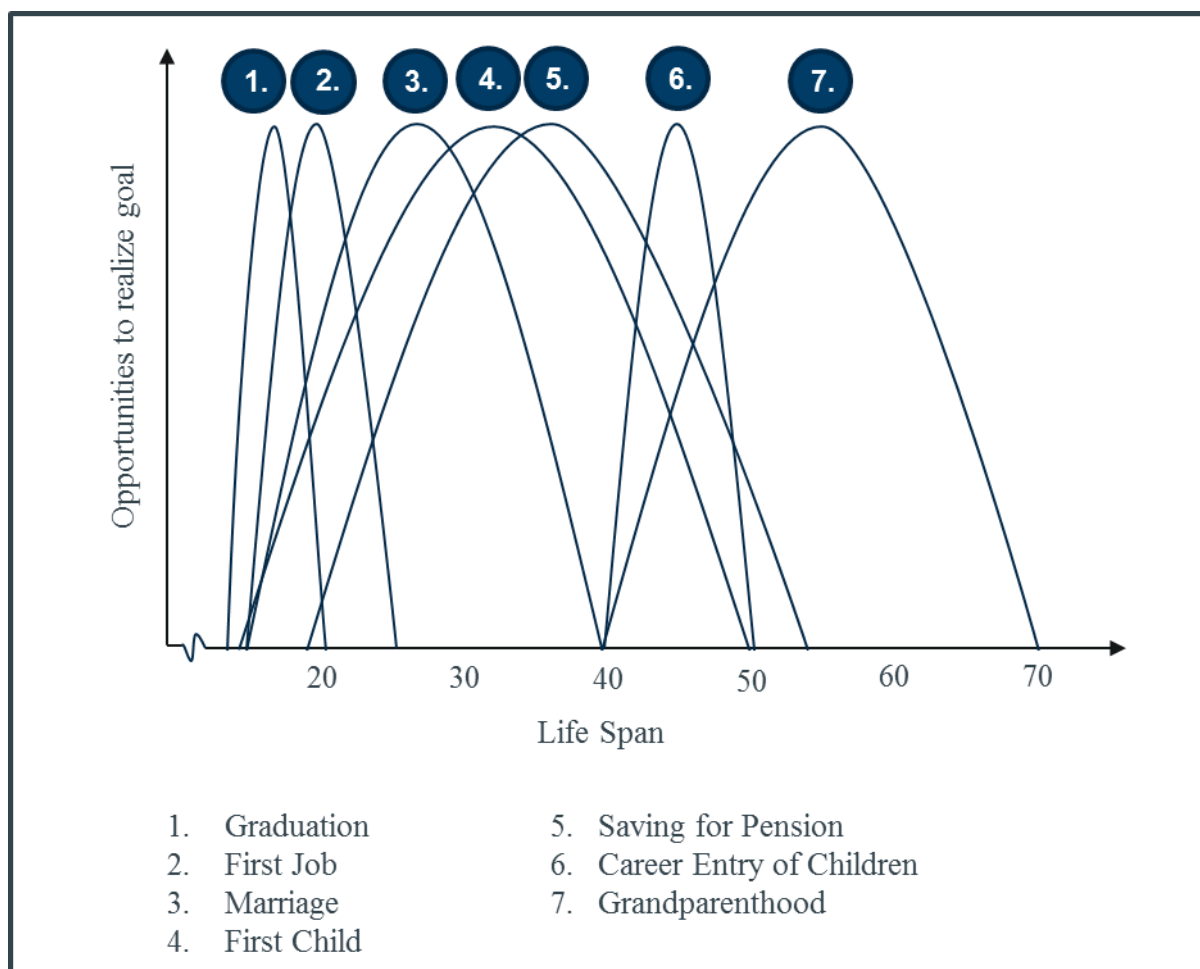
Figure 5. Age-graded sequencing of opportunities to realize various developmental goals (Heckhausen et al., 2010. p.37)

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[1] Please see Section 0 for an outline of the Motivational Life-Span Theory of Development (Heckhausen, Wrosch & Schulz, 2010) which combines theories of developmental goals (Heckhausen, 1999), the Life-Span Theory of Control (c.f., Heckhausen & Schultz, 1993, 1995), the Model of Optimisation in Primary and Secondary Control (c.f., Heckhausen, 1999) and the Action Phases Model of Development Regulation (c.f.,Heckhausen & Gollwizer 1987).

In the theory of developmental goals, Heckhausen (1999) posits that in adaptive development an individual will engage with a goal that is appropriate and attainable in that opportunity space and disengage with a goal if it becomes impossible or too costly to realise. In a recent meta-analysis da Silva, Boivin, and Gameiro (2016) investigated self-regulation and well-being with individuals with blocked parenthood goals. Although there was only moderate support for the developmental goals theory, on the whole individuals were found to be more likely to experience poorer well-being when faced with a blocked parenthood goal. It was also found that although these participants were not more likely to disengage from their parenthood goal, if they did so, disengaging was linked to higher well-being in individuals who had unexpected blockages such as infertility, rather than expected ones such as their partner delaying pregnancy. Re-engaging in other life goals after disengagement was found to be a fruitful coping strategy as reengagement was found to increase well-being (da Silva et al. 2016).

2.1.5   Differences and Similarities between Personal Goal Theories

As stated in section 2.1.4, there are marked differences between the personal goal theories as well as commonalities. In the following I will discuss firstly the main differences between the personal goal theories and secondly the similarities as identified by Brunstin and Maier (1996). The personal goals approach to striving is central to this thesis. For the remainder of this chapter therefore, I focus on this particular approach to goals.

2.1.5.1   Differences: Abstraction Level and Importance of Social Context

Brunstein & Maier (1996) identified two main differences between the various concepts of Personal Goals: the abstraction level at which the goals are measured, and the importance afforded to the social context. I will discuss these differences in turn.

Level of abstraction

In personal goal research, it is widely accepted that goals are hierarchical in nature covering many levels of abstraction. Higher order goals lie at the top of the hierarchy and smaller sub-goals or tasks are situated further down (Austin & Vancouver, 1996; Brunstein & Maier, 1996; Carver & Scheier, 1998; Emmons, 1989; Kruglanski, Shah, Fishbach, Friedman, Chun & Sleeth-Keppler, 2002). Personal goal theorists have differing opinions regarding which abstraction level is the most appropriate for measuring goals so the theories cover different levels of abstractions. On the lowest abstraction level lie specific narrowly defined *tasks* (e.g., *clean the office*; *bake a cake*). On the mid-abstraction level lie current concerns, life tasks, personal projects and developmental goals. These theories focus on concrete plans that tend to be rather specific (e.g., *finish my PhD thesis*; *plan a trip to India*; *lead a project at work*).

Further up the hierarchy and one step down from motivational dispositions (Emmons, 1989), personal strivings and possible selves take their places. These focus on more abstract, higher order aspirations

(e.g., *become a more moral person*; *be a good teacher*). Such higher order goals have a range of plans and tasks nestled beneath them in the hierarchy. Indeed, each goal in the hierarchy has sub-goals underneath them, with these sub-goals also having sub-goals, and so forth until the action level is reached (Emmons, 1989). A goal hierarchy is presented in Figure 6, which is illustrated with an example.

Importance of Social Context

The second way that theories of personal goals differs is the extent to which the social context is thought to influence the choice, progress and completion of goals (Brunstein & Maier, 1996). Life tasks, personal projects and possible selves stem from a social-cognitive approach, so the social situation behind these goals is very influential. For these theories, personal goals develop from an interaction between the internal factors of a person's needs, motives and values, and the external situational factors of the opportunity structure, situational challenges and stimuli (Dargel, 2006). Because of these external factors Little (1987), Cantor (c.f., Cantor & Kihlstrom, 1987), and Markus (c.f., Markus & Nurius, 1986) emphasise the plasticity of goals and the fact that they can change in the face of changing life situations.
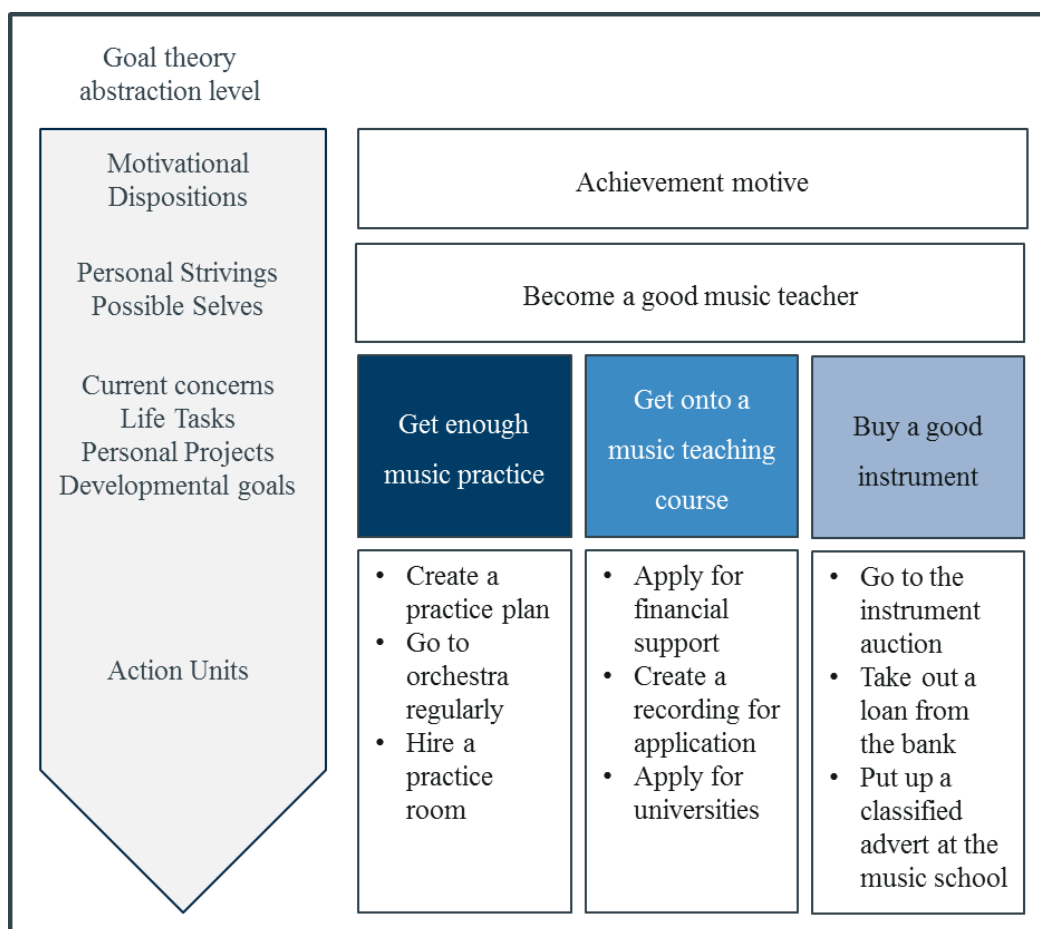
Figure 6. A Goal Hierarchy Illustrated by an Example (Adapted from Emmons, 1989)

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Contrary to this view, Emmons (1989) views personal strivings as being more anchored and less impacted by external conditions. Strivings describe something that a person is trying to achieve or avoid across a range of settings and will return to repeatedly, regardless of the specific social context. Similarly, Klinger (1977) gives the social context low importance with regard to current concerns. The focus here is on the emotional and cognitive reactions that accompany the goal and the extent to which goals affect our thinking and action control systems (Brunstein & Maier, 1996).

This difference in thinking regarding the stability of goals recently lead one group of researchers to develop a goal measure which captures both state and trait goals of achievement and well-being (Bürger, Schmitt & Augustine, 2015). They were surprised to find that some state goals were as stable against external situational conditions as their corresponding trait goals were, whilst other goals really do seem to be dependent on the situation (in this case a learning situation). There is clearly room for more investigation into the extent to which goals can be thought of as being situationally impacted or more stable trait-like motivational features.

2.1.5.2 Similarities: Measurement and Personal Goals in Daily Life

There are two main commonalities, which Brunstein and Maier (1996) identify between the personal goal theories outlined in section 2.1.4. These are, the way in which personal goals are measured, and the way that personal goals are thought to affect our daily lives.

Measuring Personal Goals

There are two main methods to measure personal goals, an open and a closed method. The open method typically occurs in two phases: an ideographic, and a nomothetic phase. In the first ideographic phase participants are normally asked to freely report on what their personal goals are at present, either by listing them on paper (Brunstein, 1993; 1999; Maier & Brunstein, 2001; Emmons, 1986), or by way of an interview response (Bangerter, Grob & Krings, 2001). To help participants to generate their goals, example goals or prompts are given, such as beginnings of goal sentences (e.g., "*I am currently trying to …*"). Researchers interested in one particular domain (e.g., family, work, or health), or a particular time-period (e.g., a transition period), can prompt participants to generate their goals within this area of life, or period (e.g., Roberson, 1990; Harris, Daniels & Brinner, 2003; Salmela-Aro, Mutanen, Koivisto & Vuori, 2010). Alternatively, asking participants to state a date by when they wish to have reached their goal means that this *temporal extension* can be calculated later giving researchers more information about how far goals reach into the future (Nurmi, 2001, Trommsdorff, Burger & Fuchsle, 1982).

The self-generated list of goals is the basis of the second, nomothetic part of the measurement process. Researchers typically ask participants to rate their personal goals on one or more standardised scales which measure formal features of the goals, such as a goal's importance, its difficulty, and how

committed the participant is to the goal (e.g., Brunstein, 1993; Emmons, 1986; Nurmi, 2001; Sheldon & Kasser, 1998). These nomothetic scales allow the comparison of personal goals within- and between individuals. For instance, if interested in the importance people assign their personal goals, researchers can compare the importance ratings that an individual gives their many different goals, or compare the importance levels that different people assign to their goals. These scales also help when exploring how other variables, such as life satisfaction, relate to personal goals.

Researchers can also classify the generated goals by content. There are many coding systems used to categorise personal goals (e.g., Ford & Nichols, 1987; Cross & Markus, 1991; Salmela-Aro & Nurmi, 1997a; Emmons, 1991). Nevertheless, Nurmi (2001) points out that the categories most used to code goals are the life domains they occupy, including future occupation/profession, education/schooling, leisure activities, family/marriage, property, and self-actualization. Alternatively, goal content can also be analysed in terms of their motivational themes, for instance intimacy, achievement and power (Emmons, 1991). Content coding personal goals allows comparisons of how other variables, such as satisfaction and well-being, link to the type of goals people choose to pursue, and allows comparisons of types of people and their goal contents.

The closed method for measuring personal goals involves a more questionnaire style of data collection. Researchers using this method present all participants with an identical list of generic goals. These goals tend to be rather general to find resonance with all participants, for instance, *'to further my own horizons'* (Pöhlmann & Brunstein, 1997). As in the open methodology, participants then rate the given goals on various scales (e.g., Novacek & Lazarus, 1990; Pöhlmann & Brunstein, 1997, Pychyl & Little, 1998). As participants do not generate their own list of personal goals this method is faster, but sacrifices the idiosyncratic nature and content of individual's goals somewhat. Nevertheless, this method has its place and has been used successfully within developmental (Klusmann, Trautwein & Lüdtke, 2005) and occupational psychology (Maier, Rappensperger, von Rosenstiel & Zwarg, 1994; Abele, Stief & Krusken, 2002).

Personal Goals in Daily Life

The second similarity that personal goal theories have is the shared notion that personal goals have an impact on our daily lives (Brunstein & Maier, 1996). Personal goals give our lives structure and meaning, and effect our thoughts and actions (Cantor, 1990; Emmons 1986; Klinger, 1977). Goals prompt individuals to make decisions and behave in ways that support the realisation of their goals, including actively searching out and creating opportunities to follow their goals (Salmela-Aro, 2009). Individuals make plans and strategies to direct their behaviours towards making goal progress, and put effort into monitoring these plans and behaviours (Brunstein & Maier, 1996). Such strategies include, obtaining relevant resources and learning new competencies (Freund, 2007). People invest time and

energy into their personal goals and in return, their goals fill their daily lives with vitality, purpose and feelings of self-control (Brunstein, 2000).

Personal goals also effect individuals' daily emotions (Brunstein & Maier, 1996). The way we react to everyday situations is dependent on how they are relevant to our goals. Individuals are more emotionally involved in situations that support personal goal progress than if the situation excludes any goal progress (Zirkel & Cantor, 1990). For instance, if a job situation fosters the attainment of personal goals higher levels of well-being and job satisfaction result (ter Doest, Maes, Gebhardt & Koelewijm, 2006).

Evidence that personal goals affect our daily lives stems from experience sampling method studies (ESM) (Emmons & Diener 1986; Moberly & Watkins, 2010) and diary studies (Cantor & Zirkel, 1990; Harlow & Cantor, 1995; Harris, Daniels & Briner, 2003; Riediger & Freund, 2004). In ESM studies researchers send participants a signal at a certain time or times of the day (e.g., a text message, email or watch alarm) alerting them to fill in a questionnaire. In diary studies, participants fill in a structured diary, traditionally at the end of each day, detailing their thoughts, feelings and activities carried out that day. Both of these methods record an individual's daily doings and it is then possible to investigate how these daily activities and experiences are linked to their personal goals, thus awarding insights into how personal goals influence daily lives.

In an ESM study (Moberly & Watkins, 2010) participants recorded and rated their goal, their current mood, and their feelings eight times a day for two weeks, by responding to prompts on a watch. When people come across goal attainment difficulties throughout the day they felt more negative (more anxious and irritated) and ruminated on their problems and feelings more. This indicates that goals can influence our emotions and thoughts throughout our waking hours. Consistent with these results, a daily diary study investigated the associations between the attainment of work goals and the emotions of call-centre staff (Harris et al., 2003). Participants filled in a diary before and after work for two weeks, recording their mood and their progress on five work goals over the day. Daily progress towards work goals was associated with feeling more activated (i.e., less tired and bored, and more active and motivated) at the end of the day. This study corroborates the idea that our personal goals influence us on a day-to-day basis.

2.2 Adolescent Goal Pursuit: Developmental perspective

The roll our personal goals play in guiding us through our days is large—goals shape lives. This shaping is an active and creative process; we chose our goals, teasing our lives into the form we desire. This starts early on in our lives, with adolescence (mid-teens to early twenties) being particularly formative years in terms of goal setting (Shulman & Nurmi, 2010). As the focus of this thesis is the

personal goals of adolescents, in the following section I outline some key findings from developmental psychology highlighting why personal goals are of such high importance to adolescents.

2.2.1 The Importance of Personal Goals for Healthy Development in Adolescence

It is traditionally understood that personal goals play a particularly salient role during adolescence (Nurmi, 2001; Erikson, 1963) when there is an influx of normative tasks to overcome (Havighurst, 1974; Caspi, 2002; Salmela-Aro, 2010). These tasks can relate to peers and parents, such as choosing a romantic partner or leaving the family home, or institution- and time-bound tasks, such as deciding whether to continue an educational or a vocational track, or deciding which subject area or job to pursue. Normative tasks underscore how important it is for adolescents to be future orientated, setting and striving for goals that reflect their desired futures (Nurmi, 2001; Karniol & Ross, 1996).

Developmental psychologists pinpoint the adolescent years as a time when self-identity emerges and when goal setting and pursuit is crucial for the development and formation of identity (Arnett, 2004; Erikson, 1963; Marcia, 1980). Identity development occurs through exploration of various options, and commitment to interests and future paths (Marcia, 1980). An early view of child development was that childhood was a moratorium, where adult responsibilities could be delayed (Erikson, 1968). Arnett (2007) advanced that late adolescence, or *emerging adulthood* (mid-teens to mid- to late twenties) has similar moratorium opportunities but for exploring roles and functions that help in identity formation (e.g., extended travel). Identity forming also contributes towards a higher order goal, namely the identification and cultivation of one's true or authentic self (Scharf & Mayseless, 2010). Adolescents live in an ever-changing world with dynamic contexts and they must continuously adapt their goals to the current situation (Flunger, Marttinen, Tuominen-Soini & Salmela-Aro, 2016). Young people have been found to reflect on the goals they choose, ruminating as to how well the goals actually fit their chosen direction in life (Luyckx et al., 2008). This self-examination is an integral part of adolescent identity formation and self-development (Kaplan & Flum, 2010; Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013).

A recent study spanning two years identified five differing identity profiles of emerging adults (Marttinen, et al., 2016). The researchers investigated these profiles to see whether some had negative effects on the young people in terms of the types of personal goals that they choose to strive for, their well-being and their current concerns. What emerged was that three identity profiles were identified as unproblematic (moderate achievement, achievement, and reconsidering achievement) whilst two profiles (moderate diffusion and diffused diffusion) were considered to have a "dark side" to them. These were both characterised by exploration through rumination, and lowered commitment to goals. The personal goals set of the diffused diffusion profile consisted of many self-focused goals and very

few goals relating to relationships. This group showed depressive symptoms so severe and such low satisfaction with life they were flagged as being "*clinically significant*" (Marttinen, et al., 2016, p. 193). The moderate diffusion group's goals were similar to the rest of the sample with the exception of having more goals related to money but this group also displayed high depressive symptoms and low life satisfaction. These two "dark side" profiles were flagged as individuals who can be predicted to find the transition to adulthood problematic, as self-focus goals and ruminatory processes could result in relentless worrying about the future and problematic self-definition.

Unhealthy identity development in adolescence highlights the importance of the role that personal goals and future planning play in the lives of young people. Criminal behaviours and delinquency are reflections of problematic identity development in youth. Delinquent adolescents also tend to have untypical orientations of the future (Nurmi, 1991; Skorikov & Vondracek, 2007) including pessimistic and un-structured views of the future (Trommsdorff & Lamm, 1980).The goals of youths displaying criminal behaviours also do not extend as far into the future as those of typical adolescents (Black & Gregson, 1973). Carroll and her colleagues (Carroll, 1995; Carroll, Hattie, Durkin & Houghton, 2001; Houghton & Carroll, 2002) found that the goal content of delinquent and at-risk adolescents tended to be associated with social image (e.g., looking cool), whilst the goals of not at-risk youths' focused on educational and interpersonal outcomes.

Adolescent goal setting and pursuit is critical because personal goals pursued at this juncture in life can have long-lasting impacts on individuals' adult lives (Lee & Vondracek, 2014; Nurmi, 2001; Salmela-Aro, 2010). The decisions made in adolescence relating to careers, educational level, family, criminal or delinquent behaviours, and life-style are likely to define the cornerstones of the individuals' future, laying the path to the adult they will become.

2.2.2   Adolescents and their Goals in Life-Span Theories of Development

Personal goals, then, are critical to adolescents in terms of their healthy development. It is therefore important to understand how adolescents choose, strive for and reflect upon their goals, through this tricky period between child- and adulthood. To shed some light on these issues I turn now to two models of life-span development from the fields of developmental and motivational psychology. Firstly I present the Motivational Life-Span Theory of Development (Heckhausen, Wrosch & Schulz, 2010) with its focus on developmental goals (see section 2.1.4.), and secondly, the Life-Span Model of Motivation (Nurmi, 2004, 2008; Salmela-Aro, 2009, 2010), which focusses primarily on personal goals throughout adolescence.

2.2.2.1   Heckhausen's Motivational Life-Span Theory of Development

In the motivational life-span theory of development, successfully choosing, striving for and adapting personal and developmental goals is key to fully optimising an individual's development potential

(Heckhausen et al., 2010; see section 2.1.4 for developmental goals). This umbrella theory combines three models. Firstly, the Life-Span Theory of Control (Heckhausen, 1997; Heckhausen & Schultz, 1993, 1995; Schultz & Heckhausen, 1996), secondly, its model of development regulation, the Model of Optimisation in Primary and Secondary Control (OPS-model) (Heckhausen, 1999) and lastly, the Action Phases Model of Development Regulation (outlined briefly in Section 2.1.2) (Heckhausen & Gollwizer 1987; Heckhausen 1999; Heckhausen, et al., 2010). Research into these models spans more than two decades and they have ample empirical backing.

Life-Span Theory of Control

Heckhausen and Schultz (1995) believe individuals have a fundamental and universal need for control over their lives, and will continually strive for this agency. *Primary* and *secondary control,* are principal pillars of the Life-Span Theory of Control. Primary control processes are directed at changing the environment to fit our vision of the future and to align with our goals, whilst secondary control processes are involved with modifying the self to fit our environments (Heckhausen & Schultz, 1993, 1995; Rothbaum, Weisz, & Snyder, 1982). People strive vehemently for primary control (Heckhausen, 1999). Secondary control strategies are internal processes, which protect and augment primary control such as motivation. Secondary control processes are auxilliary motivational processes that help maximise primary control (Heckhausen et al., 2010). Individuals use primary control strategies first—only when these fail are secondary control strategies used (Glück & Heckhausen, 2006). The two control processes optimise an individual's sense of control, even under sub-optimal conditions (Heckhausen & Schultz, 1993, 1995).

What is known about control over the adolescent years? Firstly, the availability of primary control grows through childhood and adolescence, peaking and plateauing in adulthood, then decreasing into old age (Heckhausen et al., 2010). Secondly, keeping primary control and controlling the environment by actively choosing, striving for and reassessing goals is vital for adaptive development across the life-span, especially through adolescence (Heckhausen, 1999). Lastly, attempting to keep primary control rather than secondary control is most adaptive developmentally speaking (Heckhausen & Schulz 1995; Schultz & Heckhausen, 1996).

Control Strategies and the OPS-Model.

Control strategies are important when considering engagement to and disengagement from goals. In the OPS-Model two regulatory behaviours of life-span development are important: *selection* and *compensation.* Selection is the concentrated investment of resources in chosen goals, whilst compensation is the use of external resources in the face of failure (Heckhausen, 1999). Paired with primary and secondary control, these regulatory behaviours form four control strategies that are involved in goal engagement and disengagement (Heckhausen, 1999; Heckhausen & Schulz, 1993).

Selection behaviours are important for goal engagement. *Selective primary control* is focused investment of resources (time, skills and effort) into goal striving. For instance, in situations where institutional, social structural or age-normative opportunities do not promote development and goal behaviours, it would be beneficial for individuals to increase their own goal engagement (Shane & Heckhausen, 2016). *Selective primary control* is focused investment of resources (time, skills and effort) into goal striving. *Selective secondary control* constitutes internal representations that are motivationally important when pursuing goals (e.g., ignoring non-chosen goals, and boosting the value of the chosen goal). *Compensatory primary control,* using external resources when ones own resources are not sufficient to attain the goal (e.g., recruiting others to help), is also important for goal engagement. The most adaptive strategy when a goal becomes unattainable or too costly to pursue is disengagement. (Wrosch, Scheier, Carver & Schultz, 2003; Heckhausen & Wrosch, 2016). Disengagement is an active process of restructuring ones goals to meet the new situation, not just ceasing goal action, and *compensatory secondary control* strategies are key (Heckhausen et al., 2010). These reduce the negative effect of failing to reach a goal. Strategies include, avoiding self-blame, focussing on other successes and self-protective strategies such as devaluing the failed goal (Glück & Heckhausen, 2006). For instance, German adolescents trying to find a vocational training post before they left school tended to devalue their "*dream job*" to a "*job they would be interested in*" when graduation was close and they had not found their dream job (Heckhausen and Tomasik, 2002).

It is thought that some individuals are more adept than others at disengaging from a goal completely (Wrosch, Scheier, & Miller, 2013; Heckhausen & Wrosch, 2016). Goal disengagement capacities tend to increase from adolescence through the lifespan, right up until old age (Heckhausen & Wrosch, 2016). This indicates that goal disengagement may well be a skill that improves with practice (Wrosch & Miller, 2009). It is in the adolescent years that individuals start to encounter a range of situations, normative decisions and developmental deadlines, which necessitate goal management.

Action Phase Model of Development Regulation

Goal engagement and disengagement accompanies us throughout our lives with opportunities to follow developmental goals occurring in cycles. For instance, in adolescents some typical developmental goals are; to find an apprenticeship after schooling, to move out of the family home, and to become financially independent. Adolescents also continue to strive for primary control, which means continued assessing and adapting goal choice, behaviour and control strategies to fit in with the opportunities and constraints the situation affords (Heckhausen et al., 2010). The Model of Action Phases of Developmental Regulation separates goal directed action into a series of five phases and connects these with the applicable control strategies (Heckhausen, 1999, 2000; Heckhausen et al., 2010). I briefly outlined the Model of Acton Phases briefly in Section 2.1.2. and will now explain the control strategies appropriate for each phase (see Figure 7).
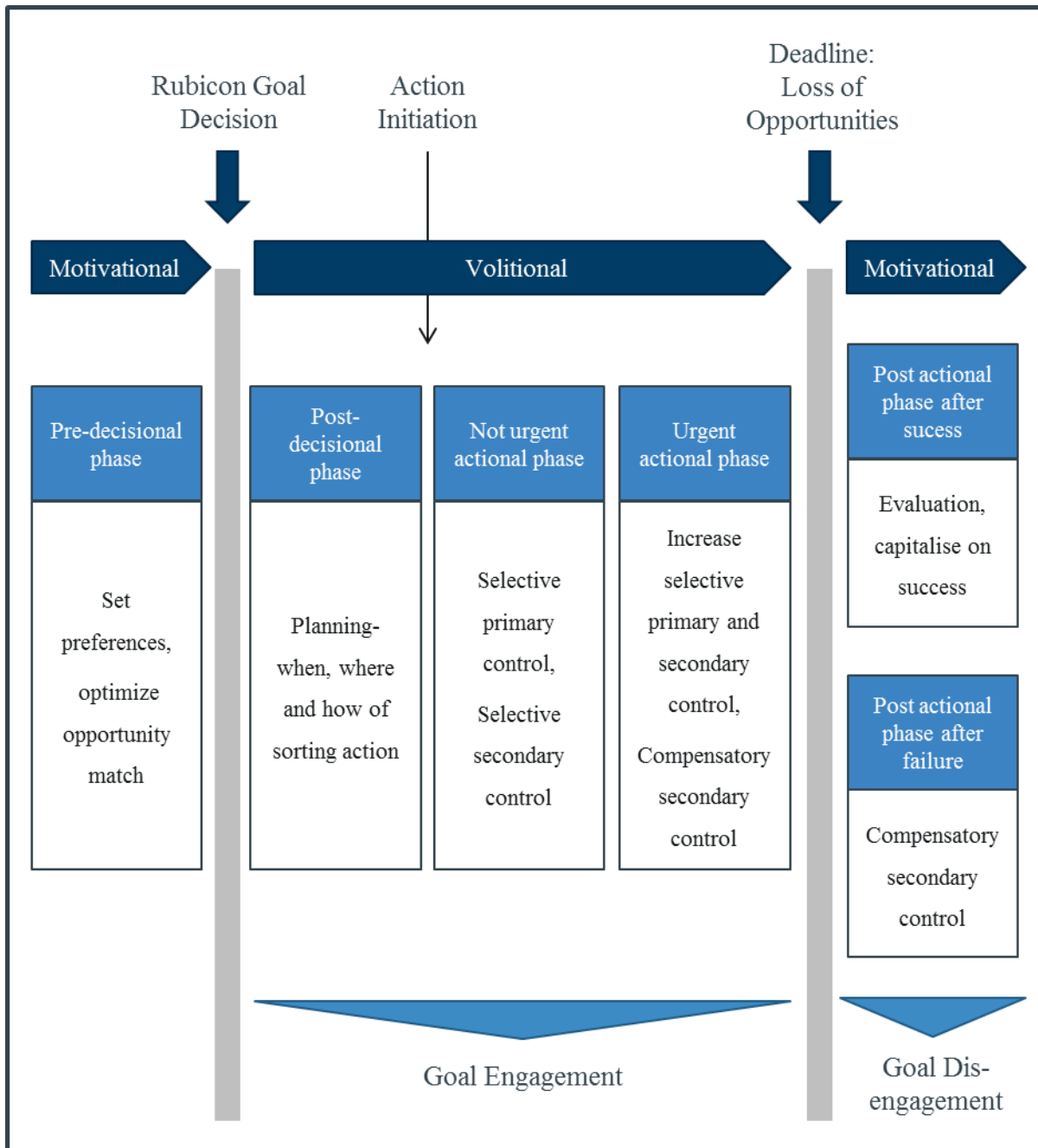
Figure 7. The extended Action Phases Model of Development Regulation (after Heckhausen, et al., 2010, p. 39)

The pre-decisional motivational phase centres on choosing the most desirable goal that is feasible. To optimize the opportunity match, strategies include evaluating the expectations, consequences and incentives that differing goals offer (Heckhausen, 1999). Once over the Rubicon the volitional goal-engagement phase centres on when, where and how best to realise the chosen goal (Heckhausen et al., 2010). An effective strategy in this phase is to block concerns over which goal was the best choice and to focus on planning for goal progress (Gollwizer, Heckhausen & Ratajczak, 1990). In the not urgent actional phase, the planned action is initiated. At this stage, adaptive strategies include investing effort

into selective primary, and selective secondary control (Heckhausen et al., 2010). In the urgent actional stage, individuals need to seize every opportunity for goal progress before it is too late, and navigate barriers by increasing effort (Gollwizer & Moskowitz, 1996). Selective primary and secondary control strategies should be increased and compensatory primary control strategies also brought in (Heckhausen et al., 2010).

On reaching the goal, evaluations take place in the motivational post actional phase (Gollwizer & Moskowitz, 1996). If an individual reached their goal smoothly, they can review successful strategies to use in future goal pursuits, if not, an adaptive strategy would be to reflect on the effectiveness of strategies used when they encountered obstacles. Additionally, re-evaluating the feasibility of their original expectations and the alternative goals from the pre-decisional phase in light of new information and strategies that they have learned would help capitalise on their success for future goal pursuit (Gollwizer, Heckhausen & Ratajczak, 1990). If, however, an individual's opportunities narrow, and goal striving becomes dysfunctional due to practical impossibilities or high costs in terms of effort or resources, they need to abandon the goal, and use compensatory secondary control strategies to protect themselves and to readdress their opportunities. If a goal is not capitulated, feelings of frustration and depressive symptoms can result as the individual continues striving in vain (Heckhausen et al., 2010).

Research on the phases model concentrates on problems people encounter in turning their wishes into actions. For instance, the planning phase of the model is of high importance when avoiding problems associated with the initiation of action (Gollwizer, et al., 1990). Accurate planning focuses people's attention on the positive outcomes of the goal and the implementation strategies needed to pursue the goal, which brings them forward, as opposed to revisiting the goal choice and not progressing (Taylor and Gollwitzer, 1995). A criticism of the phase model, is that it views goals in isolation ignoring the fact that individuals have multiple goas and giving no indication of how the sequential nature of the model would be affected by pursuing multiple (sometimes conflicting) goals simultaneously.

2.2.2.2   Nurmi and Salmela-Aro's Life-Span Theory of Development

Much current research concerned with adolescent personal goals stems from two Finnish research groups headed by Jan-Erik Nurmi and Katariina Salmela-Aro. I describe their explicatory model, *the life-span theory of development* below (Nurmi, 2004; 2008; Salmela-Aro, 2009; 2010).

Four theoretical pillars underpin the life-span theory of development (Figure 8). Firstly, adolescents' environments contain a wealth of opportunities, constraints, challenges and demands. These are framed by social and cultural norms and beliefs such as cultural roles (i.e., gender, age or familial, and beliefs regarding normative life trajectories), the economic situation (societal and familial) and

institutional factors (mandatory education, educational system and legal impositions). Together these produce an *opportunity space* that affects the young person's motivation, thinking, and behaviour (Salmela-Aro, 2010). This opportunity space combined with the individual's personal needs *channel* their trajectories of development and influence their personal goals.
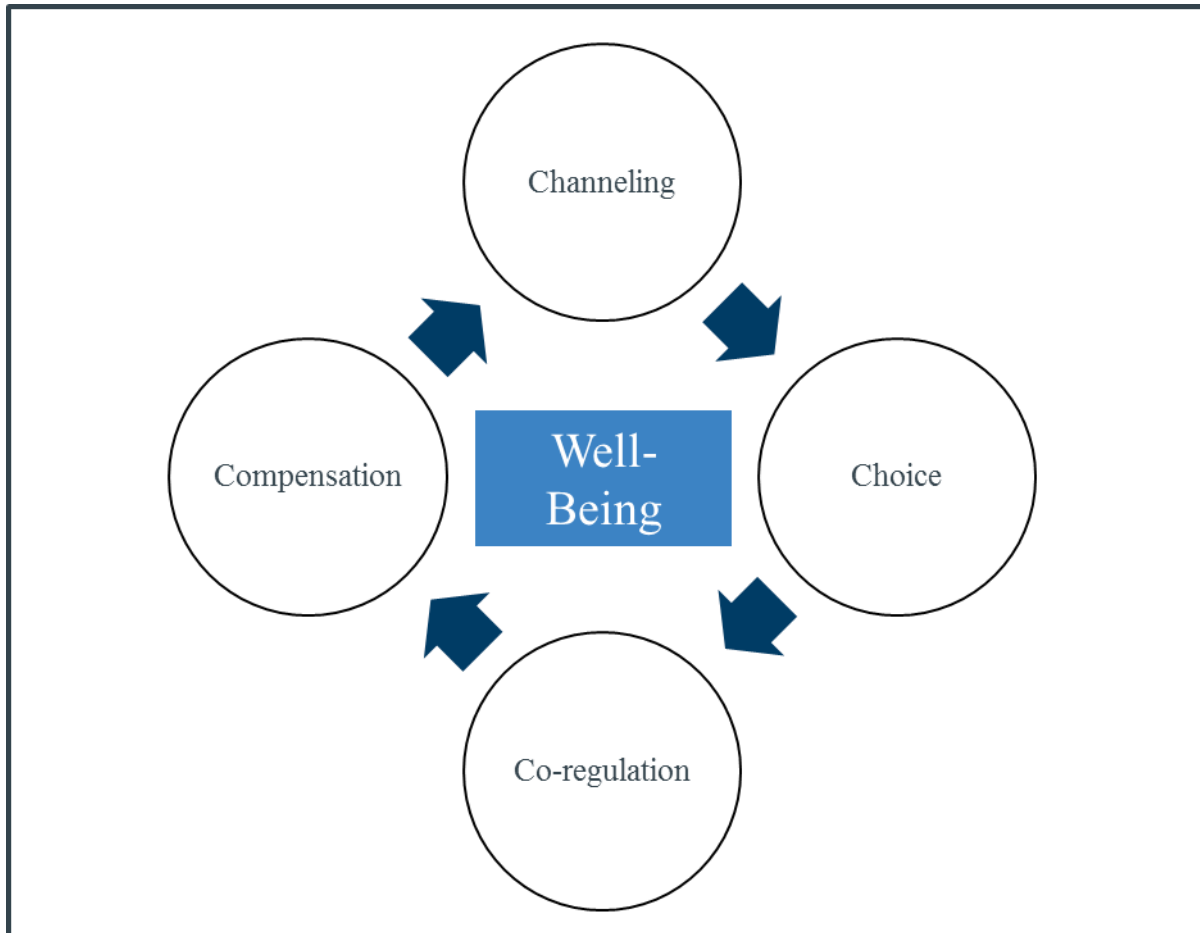
Figure 8. The Life-Span Model of Motivation (modified from Salmela-Aro, 2009, p.64; Salmela-Aro, 2010).

Secondly, adolescents direct their lives actively, which requires decision-making and effort (Shulman & Nurmi, 2010). They have histories, which impressed values, skills, interests, likes and dislikes upon them, and through their various experiences have developed different concepts of themselves and what kinds of people they wish to become (Nurmi, 2001). These will influence the active *choices* that the adolescents make regarding their futures, including which personal goals they will choose. Choices include which school track to follow, which peers to socialise with, which career to choose and how much importance to place on family or partnerships (Nurmi, 2008). As developmental regulation can be sectioned into action phases (c.f., Heckhausen, 1999) some choices and developmental goals follow the opportunity structures surrounding the young people at the time (Salmela-Aro, 2010).

Thirdly, adolescents do not develop in isolation. They grow alongside peers and within families and schools, and their goals reflect this. Goals are shared between friends and families as adolescents *co-regulate* their motivation together with significant others (Salmela-Aro, 2010). This co-regulation influences the choices that young people make regarding which goals to follow and how to accomplish them (Nurmi, 2008). Parents heavily influence adolescents through their child-rearing stlyle and in the resources, advice, freedoms, and autonomy or constraints they give their children. Parents are most often named as being the most influential social ties that adolescents have, when considering education related goals (Salmela-Aro & Little, 2007), whilst peer group members follow similar educational tracks indicating similar educational strivings (Kiuru, Nurmi, Aunola & Salmela-Aro, 2009).

Lastly, it would be pleasant if all young peoples reached their goals, but this is not always the case. Adolescents may fall short of a goal that they set themselves or face certain role transitions or difficulties that require goal readjustments. *Compensation* is the readjusting of goals, motives, behaviours and interests in order to cope and adapt to such situations (Salmela-Aro, 2010; Nurmi, 2008). This compensation is important in successfully coming to terms with a failed goal or a missed developmental task and in approaching the future with reviewed goals (Salmela-Aro & Suikkari, 2008).

Additionally, in the life-span model of motivation setting and engaging with goals which are in-line with the developmental tasks of that period of life is thought adaptive (Nurmi, 2008, 2001; Salmela-Aro, 2009, 2010). This idea parallels Heckhausen's (1999) developmental goals.This conscious coupling of personal goals to age related tasks is thought to increase adolescents' sense of well-being (Salmela-Aro, 2010; Salmela-Aro & Nurmi, 1997a). After life transitions, an ability to adjust goals to fit the demands of the new situation contributes to increased well-being, whilst an inability to adjust, or *compensate* is linked with increased depressive symptoms (Salmela-Aro, 2010).

Clearly then, it is of benefit for individuals to engage in pursuing appropriate goals for each chapter in their lives. Creating new goals to fit each new period and shedding the ballast of goals from earlier stages in life that no longer serve the individual, is a main theme in developmental and life-span theories of personal goals.

2.3 Summary

In this chapter, I have laid out an overview of the large body of literature pertaining to the study of goals. We learned that goals are motivators in our everyday lives providing meaning and structure. They help us to become the person we wish to be, by acting as beacons by which to direct our daily behaviours and efforts.

I reviewed a number of theories of goals which can help to explain the way in which people set, strive for and reach or fail to reach their goals. These theories also help to explain some of the factors that are associated with antecedents and outcomes of successful or unsuccessful goal strivings. I outlined a number of these goal theories using Gollwitzer's (1995) classification of goals into content theories, motivational and volitional theories, cognitive theories and personality theories to structure the literature review. I followed this with a short discussion of the overarching similarities and differences of these goal theories. The similarities I covered were the way in which goals shape our daily lives and the techniques that researchers use to measure goals, whilst the differences were in the abstraction level and the importance that is placed on the social context surrounding goals.

As my thesis has a focus on the goals of adolescents, I ended the chapter by reviewing the developmental psychological perspective on adolescent goal pursuit. Firstly, I outlined the salient role that personal goals have in navigating the adolescent years pinpointing the emergence of self-identity and the influx of normative tasks prevalent to this period of life as key developmental considerations. I then went on to outline two influential life-span models which have personal goals at their core from Heckhausen, and Nurmi and Salmela-Aro. These models have the commonality that they both see healthy goal pursuit in adolescents as being in the context of an opportunity space, which includes social and cultural norms and beliefs, and time-bound developmental deadlines. Both models also have a cyclical aspect to them, featuring sequences of choosing a goal, striving towards a goal, either achieving or disengaging from a goal, and then reassessing the situation afresh for a new goal.

In the next chapter, I will turn my attention to personal goals and well-being. How our goals impact upon our daily lives and help us to thrive or to suffer will be reviewed. A focus of the next chapter will also be on goals in a vocational setting, with a literature review of goals in the work domain presented. Lastly, I hone in on adolescents at work, and how their goals impact upon their work lives and their well-being.

3 Personal Goals and Psychological Well-Being

A central concern of goal researchers is how people's personal goals influence their well-being. There are numerous questions to answer including, how can setting and striving for goals make us happier? Does reaching our goals have positive consequences for our well-being? Can some goals be detrimental to our satisfaction? and, Do some types of goals make us more satisfied than others? In this chapter, I attempt to answer these questions by reviewing the research concerning how our goals affect our moods for better-or-worse as well as how our goals help us to feel generally more, or less satisfied with the life we lead.

First I outline the concept of psychological well-being then discuss how goal progress can affect our satisfaction. I then move on to discuss a telic model of well-being by Brunstein (1993) which is centred on goals. I will investigate the facets of goals presented by this model and then discuss how the importance we afford goals, their structure and their content, affect our well-being. I then move on to the subject of goals and well-being within the adolescent years before turning to well-being and goals at work. I also present a discourse about vocational training for adolescents in Germany, as this is my intended sample for the empirical studies.

3.1   Well-Being in Psychology

The study of well-being in psychology has had a long tradition but has recently increased in popularity. The work of Ed Diener and his lab had certainly fuelled this resurgence of interest into what makes people happy, and his seminal paper (Diener, 1984) sparked off lively debate within the psychological community (Larson & Eid, 2008). The construct of well-being is complex and concerns optimal experience and functioning (Ryan & Deci, 2001). In essence, there are two main perspectives in the study of well-being; *hedonistic* and *eudaimonic* (other perspectives such as desire theories and list theories also exist but these are less popular in mainstream psychology). The hedonistic approach sees well-being in terms of happiness, pleasure or the balance between pleasant and unpleasant experience. Feeling good, is the main root to well-being, with research measuring and investigating subjective well-being (SWB). In the eudaimonic approach, well-being stems from self-actualisation and finding meaning and purpose in one's life. Here the focus is on leading, "the good life", and how we can approach this through our thoughts and actions. In the eudaimonic perspective, the measurement focuses on psychological well-being (PWB) and its determinants.

Subjective well-being constitutes positive affect (PA), negative affect (NA) and cognitive evaluations about one's life as a whole (Diener, 1984). PA and NA together make up affective well-being (AWB),

whilst the evaluations of general life satisfaction are known as cognitive well-being (CWB). Domain specific well-being (e.g., job satisfaction and health satisfaction) is also CWB as it entails cognitive evaluations of certain areas of one's life (see section 3.4.2 for research on well-being at work).

The measurement of SWB relies heavily on self-report measures and cognitive judgements of happiness and satisfaction levels. Diener and his colleagues (Diener, Emmons, Larsen & Griffin, 1985) developed a measure of the cognitive aspect of SWB called the Satisfaction with Life Scale. Since its publication, this scale has become the standard measure of life satisfaction measuring the global cognitive satisfaction of respondents with five items (Larsen & Eid, 2008). Typically, the affective components of SWB are measured with participants rating the extent to which they experienced certain mood states or emotions in a given period of time (e.g., the Positive Affect Negative Affect Schedule, PANAS; Watson, Clark & Tellegen, 1988).These moods are presented in the form of lists of adjectives. Examples for positive affect include "enthusiastic", "inspired" and "interested" and for negative affect "afraid", "upset" and "distressed". Importantly, PA and NA are independent, with an increase in NA not necessarily being synonymous with a decrease in PA (Schimmack, 2008). Along with technological innovations, measurement of AWB has become more sophisticated, instead of relying on single measurement points, hand-held devices and internet access have made experience sampling or diary methods of measuring mood states easier. These methods mean that participants can record their moods either at set times of the day (e.g., before leaving work for the day) or at random intervals being prompted by their hand-held device. This reduces problems associated with recalling mood states retrospectively over long periods (Pavot, 2008).

Eudaimonic well-being is centred on the study of psychological well-being that was defined by Ryff (1989) as being comprised of six characteristics (autonomy, personal growth, self-acceptance, purpose in life, environmental mastery, and positive social relations). Ryff developed a measurement instrument to reflect this conceptualisation, challenging the SWL researchers who conceptualise well-being as being down to happiness alone. The term "positive psychology" (Seligman, 2002) has been used to describe more recent work focussing on mental health (as oppose to ill-health) and positive psychological processes (e.g. positive emotions, engagement, relationships, meaning, accomplishment and optimal functioning) which take emotional or psychological well-being facets under the loupe. Positive psychology has done a lot to further our understanding of PWB and is growing more popular, nevertheless, there are difficulties with the measurement of PWB stemming from the judgmental evaluations that are implicit within the measurement of the constructs (Luhmann, Hoffmann, Eid & Lucas, 2012). Furthermore, features of psychological well-being are not always discussed in terms of outcomes. Sometimes these features are studied in terms of predictors of well-being (Lent & Brown, 2008), making the concepts rather unclear. There seems to be more consensus on how to measure SWB than PWB at present, although the concepts stemming from PWB could add value to traditional SWB measures if a holistic approach were taken.

3.1.1 Personal Goal Progress, Goal Attainment and Well-Being

In this section, I explore the antecedents of well-being in relation to personal goals. I ask: Which aspects of goals are linked to increased well-being? and; Which personal goal features are thought to have a detrimental effect on our well-being and why? I turn to the study of goal progress and attainability to shed some light on the matter.

3.1.1.1 Personal Goal Progress and Well-Being

It is widely understood that setting and striving for goals provides structure and meaning in a person's life (King, 2008; Klinger, 1977; Little, 1989, 2007; Lüdtke, 2006, Wiese, 2007). Goal striving is, as King (2008) put it, "*the glue that meaningfully links a chain of life events—providing life with beginnings, middles and ends*" (pg 437-438). Indeed, people who have important goals that they pursue report higher subjective well-being than those who do not (Brunstein, 1993; Emmons, 1986; Freund & Baltes, 2002). Simply having goals that are important to us matters, but it is the progress which we make towards our goals or the lack of it, that has the most dramatic effect on our well-being (Klug & Maier, 2014).

Goal progress is most commonly measured through self-reports i.e., asking participants to indicate how much progress they are making towards a particular goal, or whether they are pleased with their rate of progress. Alternatively, the goal hierarchy can help, with participants indicating their progress and attainment on a series of smaller subordinate goals (as low as the task level).

Goal progress is of central importance to telic theories of well-being (Carver & Scheier, 1990; Diener, 1984; Diener, Suh, Lucas & Smith, 1999). Telic theorists believe human behaviour is goal-directed, with life satisfaction originating from the progress we make towards our personal goals. Meaningful goals in the telic sense serve as benchmarks to aim for, with subjective well-being and emotional reactions acting as a type of feedback loop, informing us of how far we have yet to go before reaching our desired goal (Lüdke, 2006). Positive emotions and increased well-being indicate that we are narrowing the gap between the actual state and the desired state of goal completion (see Figure 1), whilst negative emotions and decreased well-being warn us that we are not getting closer to the coveted end.

There is much empirical evidence to support the telic concept, with links between successful goal pursuit and increased well-being substantiated in cross-sectional (King, Richard & Stemmerich, 1998; Salmela-Aro, 1992) and longitudinal studies (Bagozzi, Baumgartner & Pieters, 1998; Brunstein, 1993; Brunstein Schultheiss, & Grässman, 1998; Emmons, 1986; Harris, Daniels & Briner, 2003; Maier & Brunstein, 2001, Sheldon & Elliot, 2000). There is evidence to support this link from the general, occupational, and educational domains, as well as in a variety of samples. The different facets of well-being also relate to goal progress differently. For instance, whilst most authors that separated positive

from negative affect report that progressing towards goals increases people's positive affect, most showed little or no decrease in the sample's negative affect (Bagozzi et al., 1998; Sheldon & Kasser, 1998; Steca, Monzani, Greco, et. al., 2016; Wiese & Freund, 2005). This highlights the importance of investigating the two affective components of well-being separately in future goal studies as it indicates that out emotional experiences are multi-directional.[2]

There is also a certain amount of individual variance in the relationship between personal goal progress and well-being (Kruglanski, 1996; Wiese & Freund, 2005). This indicates that moderator and mediator variables probably account for some of the variance. In a recent meta-analysis linking goal progress and well-being, stark differences emerged between population groups (Klug & Maier, 2014). Interestingly for the current research, the subgroup of adolescents benefited the least from successful goal striving, with students benefiting the most. This was attributed to the differences in freedoms, self-determination and control over their goals that is afforded to these groups, with adolescents being more other-directed than the student, or the general adult population (Klug & Maier, 2014). This seems plausible, as an adolescent's time will surely be more heavily regulated, for instance by parents, vocational-trainers or schools, than that of a student's. The authors also point to a lack of studies of goal pursuit and well-being in the adolescent population, with only nine studies of adolescents included in the meta-analysis compared to 50 studies of students. They appeal for more studies focusing on goal pursuit and well-being outside of the student population. This is highly relevant to my research as I focus on an adolescent population.

To summarise, making successful progress towards personal goals is likely to increase an individual's cognitive and affective well-being. For the adolescent population, however, this increase may be less dramatic than for students or adults.

3.1.1.2   Personal Goal Attainment and Well-Being

If progressing towards our goals leads to increases in our well-being, it is an understandable assumption that actually reaching a goal would also have a satisfying effect. However, actually completing a goal has not consistently been found to lead automatically to an increase in peoples' reported levels of well-being. Indeed some studies have evinced that attaining a goal increases well-being (e.g., Brunstein et al., 1998; Emmons & Diener, 1986; Klinger, 1977; Messersmith & Schulenberg, 2010; Sheldon & Kasser, 1998), whilst in others this is not reliably the case (Carver & Scheier, 1998; Hsee & Abelson, 1991; Skaletz & Seiffge-Krenke, 2010). The reasons for this conflicting evidence are not clear, however it could be that completing a goal can leave the individual

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[2] For an outline of the multi-faceted nature of emotional experiences I point the reader to Diener`s Two-Factor Theory of Emotional Experiences; Diener et al. (1999).

with a vaccuum in their lives where the goal once was. With the goal's absence comes an absence of the structure, clarity and meaning which the goal provided. According to Carver and Scheier (1998), if completing a particular goal leads to a dead end, with no possibilities opening up to the individual, a sense of empty success can result. Nevertheless, meta-analytic data suggests that on the whole attaining one's goals does lead to an increase in well-being, perhaps as most of our goals are hierarchically structured, with the completion of a sub-goal leading us to direct our attentions towards the next higher-order goal (Klug & Maier, 2014).

Achieving goals is considered beneficial for adolescents as it generally leads to an increase in well-being. For instance, adolescents with career goals displayed a reduction in depressive symptoms after finding a job (Nurmi & Salmela-Aro, 2002). Goal attainment can also be positive as it can lead to an increase in adolescents' self-efficacy (Bandura, 2001; Schulman & Nurmi, 2010). Furthermore, adolescent goal attainment is believed to pave the way for further developmental progressions in the future (Brandtstädter, 1998; Nurmi & Salmela-Aro, 2002; Schulman & Nurmi, 2010).

In adolescents, goal completion has been found to increase happiness and well-being, but these increases may be stage-related (Schulman & Nurmi, 2010). In a longitudinal study, emerging adults who attained marriage and educational goals toward the end of their 20's reported an increase in well-being (Messersmith & Schulenberg, 2010). Conversely, in younger adolescents aged 21-23, realising these two divergent goals (marriage and getting a job), is paired with very high levels of psychopathology, whilst having low attainment in one or the other goal is paired with low symptomatology (Skaletz & Seiffge-Krenke, 2010). These findings indicate that young people should perhaps take heed of the sequencing of their goal strivings in order to choose goals that are in line with their developmental tasks (Heckhausen, 2000), and not try to do everything at once, thus allowing the most adaptive choice of goals in the given situation.

To sum up, goal attainment is highly likely to lead to an increase in well-being if a well-integrated goal hierarchy network is present. For the adolescent population, goal achievement can lead to increase in well-being, but perhaps only if the goals are attained at the right time for them i.e. in conjunction with their developmental tasks. When considering goal progress and goal attainment, it is the progress that we make towards our goals rather than the actual completion that has the most dramatic and lasting impact on our feelings of satisfaction.

3.1.2   The Goals Model of Well-Being

Telic theorists identify a number of goal factors, apart from completion of a goal, that have the potential to affect how a person is feeling and how satisfied they feel about their life. Some of these are also thought to moderate how our goal progress affects our well-being. These include the

attainability of the goal–that is how likely one is to succeed at the goal, how committed one is to the goal, and the type and structure of the goals that one has.

One model of well-being that concentrates on the influence that certain goal factors have on SWB is the *Goals model of Well-Being* (Brunstein et al., 1999; Brunstein & Maier, 2002; Brunstein, Maier & Djargel, 2007) which is presented in Figure 9. In this model, well-being is affected by the interplay between three goal factors: *commitment*, *attainability* and how motive *congruent* (or concordant) the goal is. Goal commitment is the extent to which one identifies with one's goals and is determined to reach them. A person with high goal commitment is very determined, has concrete plans of how to reach the goal and is unwilling to give up the goal. Goal commitment is vital in terms of our satisfaction with our goal progress, but not in isolation—it is in combination with goal attainability and congruence that the influence of commitment is fully understood.
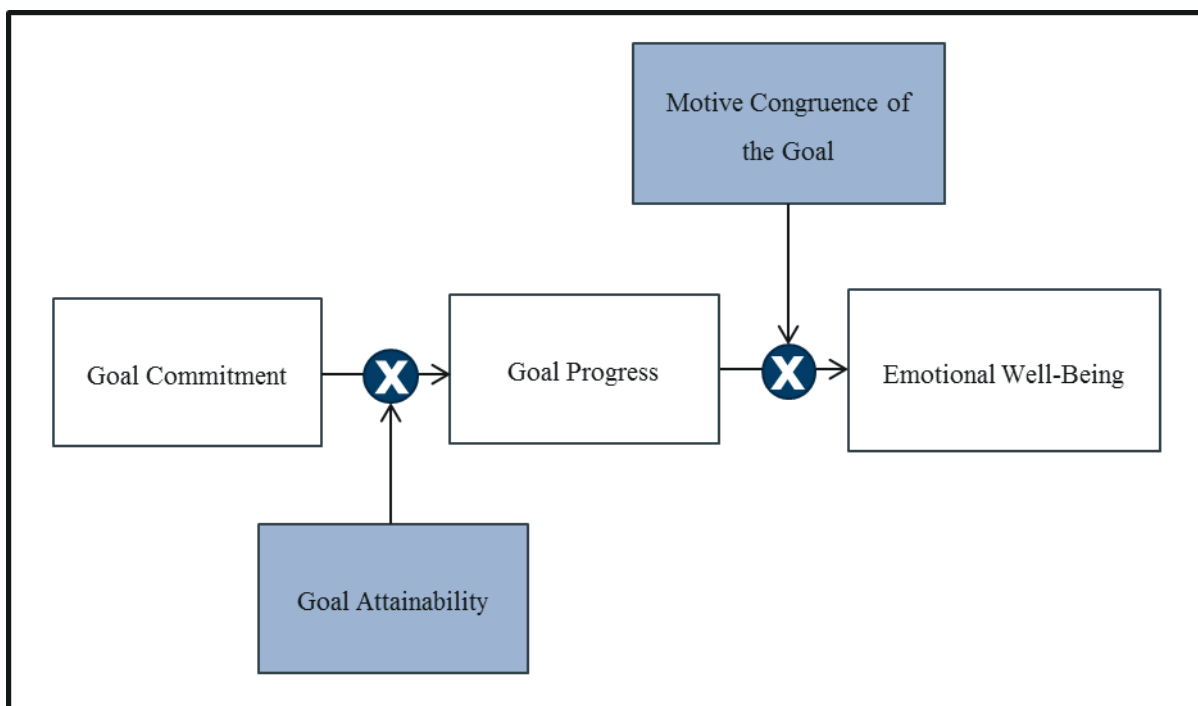
Figure 9 The Telenomic Goals Model of Subjective Well-Being (Adapted from German, Brunstein, Maier & Djargel, 2007, p.282)

The attainability of a goal lies in how reachable it is given the holder's life circumstances. A goal that fulfils three factors is attainable. Firstly, that there are plenty of opportunities to concentrate on and work towards the goal; secondly, that enough social support is available; and thirdly, that external factors affecting the realisation of the goal can be influenced or controlled. Whilst goal commitment levels impact the extent to which we feel satisfied with our goal progress, the attainability of the goal has the power to tip this balance positively or negatively. According to Brunstein (1999), being highly committed to a goal but being in a situation that makes the goal unattainable (e.g., no social support, or

no time or resources to pursue the goal), leads to decreased satisfaction levels due to increased frustration. Conversely, being highly committed to a goal, whilst in a situation that promotes goal attainability, leads to increased satisfaction levels.

The extent to which goals are congruent to a person's motives or relevant to their self-identity also influences satisfaction levels. In the Goals Model of Well-Being, Progress towards a goal that is in line with one's own motives or is highly relevant to one's feelings of self-identity leads to higher levels of satisfaction than progress towards other goals. Making progress towards motive concordant and self-identity goals triggers a positive emotional response increasing satisfaction (Brunstein et al., 1999).

Having briefly outlined the Goals model of well-being (Brunstein et al., 1999) in the next sections I will discuss the empirical evidence surrounding the individual goal factors of commitment, attainability and motive congruence that feature within the model, linking these to well-being.

3.1.2.1 Personal Goal Commitment, Personal Goal Attainability and Well-Being

Goal commitment is an essential factor in progressing towards any goal. Brunstein and Maier (2002) offer the following definition of goal commitment, "*the degree to which a person identifies with their goals and is determined to realise them*"[3] (p. 162). Importantly, goal commitment includes a motivational quality over and above simply *having* a goal, helping us continue striving in spite of obstacles or unfavourable situations (Novacek & Lazarus, 1990). Commitment is the element that turns a wish into a goal. Being committed to a goal brings with it feelings of engagement and eagerness to effectuate goal progress, a readiness to invest energy into goal pursuit, and a strong reluctance to surrender the goal or to lower the boundaries (Brunstein, 1993; Hollenbeck & Klein, 1987; Novacke & Lazarus, 1990,).

Goal commitment is a key factor in persistence in goal striving (Austin & Vancouver, 1996). This, in turn, leads to goal progress. In a meta-analytic study, goal commitment acted as a crucial moderator between goals and behaviour across all 17 samples with higher goal commitment leading to increased goal-related behaviour. Furthermore, theories of satisfaction suggest that individuals will be more satisfied if they are highly committed to and engaged in activities that they find meaningful (Diener, 1984; Seligman, 2011). Novacek and Lazarus (1990) carried out a series of studies supporting this, as commitment was positively associated with satisfaction. Nevertheless, commitment really needs to be investigated alongside attainability, as interactions between these factors affect how satisfied we are with our goal progress (Brunstein, 1999).

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[3] "Das Ausmaß, in dem sich eine Person mit ihren Zielen identifiziert und entschlossen ist, sie zu realisieren" (S. 162, Brunstein & Maier, 2002).

Although there are no studies on commitment and attainability in adolescents at work, Brunstein (1993) carried out a short-term longitudinal study in order to uncover the relationships between these goal factors and well-being in students. Students generated a list of their personal goals ideographically and rated these goals at four different time points on how much goal progress, attainability (opportunity, control, and support) and commitment (determination, urgency, and willingness) they felt, alongside measures of SWB. Students who reported being highly committed to their goals whilst in a situation which made the goal attainable showed moderate increases in SWB over time. On the other hand, students who reported high commitment levels but felt that their goals were not attainable in their present situation displayed a stark decrease in SWB over the testing periods. Finally, students with low goal commitment were relatively unaffected by perceived goal attainability. The links between goal commitment and goal attainment were found to be interactionary—there is a moderator effect. It is only in combination with favourable goal attainment that high goal commitment leads to adequate goal progress and, in turn, to increases in SWB (Brunstein, 1993).

In a follow-up study on a different sample (60 to 80-year-olds), Brunstein (1999) found goal attainability to be significantly positively linked to SWB, with this link being particularly strong in older adults who felt very committed to their goals. Of those participants who were highly committed to their goals, those in a favourable situation for goal attainment reported high subjective well-being and a positive outlook on ageing, whilst those in unfavourable situations reported lower well-being levels and held a more negative view of ageing.

3.1.2.2 Social Support

One important factor in whether a goal is considered attainable or not is the amount of social support that an individual is afforded. As social relationships are a key feature in this thesis, I will discuss social support of goals separately here. In one early study of distress and well-being (Ruehlman & Wolchik, 1988), students rated the amount of social support or social hindrance that was shown to them in relation to their personal projects by the three most important people in their lives. Personal project support was positively correlated to well-being, whilst project social hindrance was linked to both impaired well-being and increased distress. Results indicated that the participants' most important social partner had the most prominent effect on their satisfaction levels.

Social support for personal goals has been found to be important for diverse groups of people. In a hermeneutic- phenomenological interview study, mental health patients were interviewed regarding their personal recovery goals and support they had received from a community mental health centre (Biringer, Davidson, Sundfør, Ruud & Borg, 2016). Recommendations which emerged from the study were that to aid full recovery, patients should be seen as more than a simple clinical case. Ample support should be given to help them strive towards their personal goals in the fields of well-being,

positive self-identity, meaningful roles and activities. Supporting the patient in finding a sense of connectedness to and through their goals was also recommended.

Social support for goals can be viewed as a type of resource. Diener and Fujita (1995) investigated personal goals in the context of interpersonal relationships that were framed as social resources. The authors found that these social resources (e.g., social support through friends and family) had differing impacts on participants' SWB depending on how instrumental they were for the realisation of personal goals. Having ample social resources that were important for the realisation and progress towards personal goals linked with high SWB scores. In contrast, having social resources that were unimportant in terms of goal progress was inconsequential for participants' SWB.

Brunstein, Dangelmayer and Schultheiß (1996) highlighted the importance of social support in close partnerships on personal goals in two studies. Students reporting high levels of goal support from new partners (e.g., regular assistance received) had higher mood scores four weeks later than those with partners who undermined their goals (e.g., leaving no opportunities for the partner to work on their goal). Furthermore, the amount of goal support received had a direct influence on the amount of progress made towards those goals. Students in supportive relationships made more progress towards their goals than those in unsupportive relationships. There was also an interaction effect; for students with supportive partners, goal progress was contingent on the strength of their goal commitment, whereas, in non-supportive relationships, this was not the case. In the second study, Brunstein, Dangelmayer and Schultheiß (1996) found that receiving personal goal support within a marriage links positively to marital satisfaction levels with men particularly affected by the amount of support received. Furthermore, it was only in the group of men, that the amount of social support given to the spouse uniquely explained variations in marital satisfaction.

Interestingly, although spouses have been rumoured to have very similar personal goals to each other leading to support through commonalities, this is not the case with most personal goals, although partners do tend to have religious goals in common (Gray & Coons, 2017). Surprisingly, having common or similar personal goals to a spouse has also not been linked to increased satisfaction with the relationship. It seems that simply sharing common goals is not enough to increase well-being in a marriage; both partners need to feel supported in their endeavours.

Social support in adolescence goal pursuit is also an important theme. In a study concentrating on co-agency and support in adolescent goal pursuit, main social supporters were found to be adolescents' peers, parents and teachers (Kiuru, Nurmi, Aunola & Salmela-Aro, 2009). Adolescents in the same peer group at the end of comprehensive school had similar aspirations to each other in terms of goals for further education or vocational training and were also found to be similar later on, in whether they actually managed these goals or not.

Salmela-Aro (2007) found that interesting differences emerge between adolescents in terms of their goal related social ties (the persons most important to the adolescents in helping them to achieve their goal) and their goal outcomes. Adolescents named their mothers as goal related social ties most often, followed by fathers and then friends. More importantly, though, after controlling for grade point averages, social ties could predict the educational track that the adolescents chose after finishing high school. Those adolescents who mentioned having many goal-related social ties and who were from high SES families tended to transfer to an academic route, whilst those who reported having weaker social ties (e.g., teachers) tended to transfer to a vocational route. Salmela-Aro (2010), states that having weak social ties to support adolescents in their goal pursuit may help adolescents at risk to "*beat the odds*" (p.18) and not slip into unemployment.

3.1.2.3   Motive Congruent Personal Goals and Well-Being

The final factor in Brunstein and colleagues' (1999; Brunstein et al., 1999; Brunstein & Maier 2002) Goals model of well-being is that personal goals need to be motive congruent for progress towards the goal to lead to an increase in well-being. Implicit motives are a nonconscious reflection of people's affective preferences and signify the kind of incentive they look for and find rewarding and gratifying (Schultheiss & Brunstein, 2005). If a personal goal was not congruent with a person's implicit motives (e.g., the striving for power or intimacy) then reaching this goal would not lead to an increase in well-being, as it would not be relevant or meaningful to them. To test this premise, Brunstein and colleagues (Brunstein, Lautenschlager, Nawroth, Pöhlmann & Schultheiss, 1995) coded students' self-generated goals according to their goal orientation (performance vs. affiliation). Participants also completed a row of self-report satisfaction measures and filled out a picture story exercise (PSE) in order to test their internal motives.

The PSE test works as such: researchers present participants with a number of photos of various ambiguous situations (e.g., a man looking at a book at work) and participants write a fantasy story about what is happening in the picture. Participants comment on what is happening in the picture, and what they think about it. This process is intended to project a participant's implicit motives onto the external stimuli of the picture. Finally, the researchers rate the stories and descriptions of the PSE pictures on markers that are said to indicate what motive disposition the participants have (e.g., power and achievement, or intimacy and affiliation motives).

Brunstein, Lautemeier and colleagues (1995) found that the amount of congruity between a participant's explicit goal and their implicit motive predicted the amount of well-being they reported. Those with high congruity between their motives and goals (e.g., high implicit affiliation motive paired with intimacy or affiliation goals) displayed high levels of positive mood. Conversely, participants with low motive-goal congruence (e.g., high power and achievement motives with intimacy or affiliation goals) tended to have low positive mood scores.

In follow-up work Brunstein, Schultheiss and Grässmann (1998) investigated motive congruent goals and SWB in combination with goal progress, and goal commitment and attainability. The progress students made towards motive congruent goals (e.g., high agency motive paired with power/achievement goals) as opposed to motive incongruent goals (e.g., high agency motive paired with affiliation/intimacy goals) explained students' daily mood scores over a two-week period, with only progress towards congruent goals leading to a more positive mood. Moreover, over the course of a semester, students who were highly committed to attainable motive congruent goals predictably reported increased levels of SWB, whilst students who were highly committed to motive incongruent goals consistently suffered from a drop in SWB.

Brunstein et al. (1998) offer two explanations for the ways that the differing levels of goal and motive congruence lead to differences in SWB. Firstly, striving towards motive incongruent goals can be exhausting, as it requires increased concentration, time, effort, determination and self-control. Secondly, personal goals that are motive incongruent are not tied to any emotional reward making progress towards incongruent goals inconsequential.

Although there is evidence that motive congruent goals lead to increased SWB in student populations, unfortunately there are no studies to date focusing on adolescent's motive congruent goals. As a side note, the use of PSE to measure motives is controversial as validity is hard to control for, and although Brunstein and his colleagues (Brunstein et al.,1995; Brunstein et al., 1998) used independent raters to verify the PSE codes there is still a certain amount of interpretation that is involved in the results.

3.1.3   Self-Concordant Personal Goals and Well-Being

In a similar vein to that of motive congruence, Sheldon and his colleagues (Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001; Sheldon & Kasser, 2001), believe that striving for goals that provide intrinsic meaning for an individual in terms of need fulfilment can increase an individual's well-being. Sheldon and Elliot (1999) stress the importance of selecting self-concordant or self-integrated goals that reflect an individual's implicit core values and interests. Individuals choose self-concordant goals autonomously and for identified and intrinsic reasons. They reflect the person's authentic self and steer them towards self-integrated action. Non-self-concordant goals tend to be chosen for external or introjected reasons and lead to non-integrated action (see Figure 10). Goal selection is considered difficult (Sheldon, 2001), as one can easily follow the demands of others or what society views as what is 'right' for you, leaving one's own needs and meanings by the wayside and failing to choose goals that would advance one's personality. This has even been found to occur in romantic relationships characterised by power discrepancies. In a series of five studies it was discovered that weaker romantic partners tend to pursue goals on behalf of their stronger partner (partner goal prioritisation), and that they also tend to take on goals that their partners strive for, as their own (partner goal contagion) (Laurin et al., 2016).

The sentiment behind the idea of self-integrated goals is nicely illustrated by Steve Jobs' words shortly before his death (2005):

"Your time is limited; don't waste it living someone else's life. Don't be trapped by dogma, which is living the result of other people's thinking. Don't let the noise of other's opinion drown your own inner voice. And most important, have the courage to follow your heart and intuition, they somehow already know what you truly want to become. Everything else is secondary."
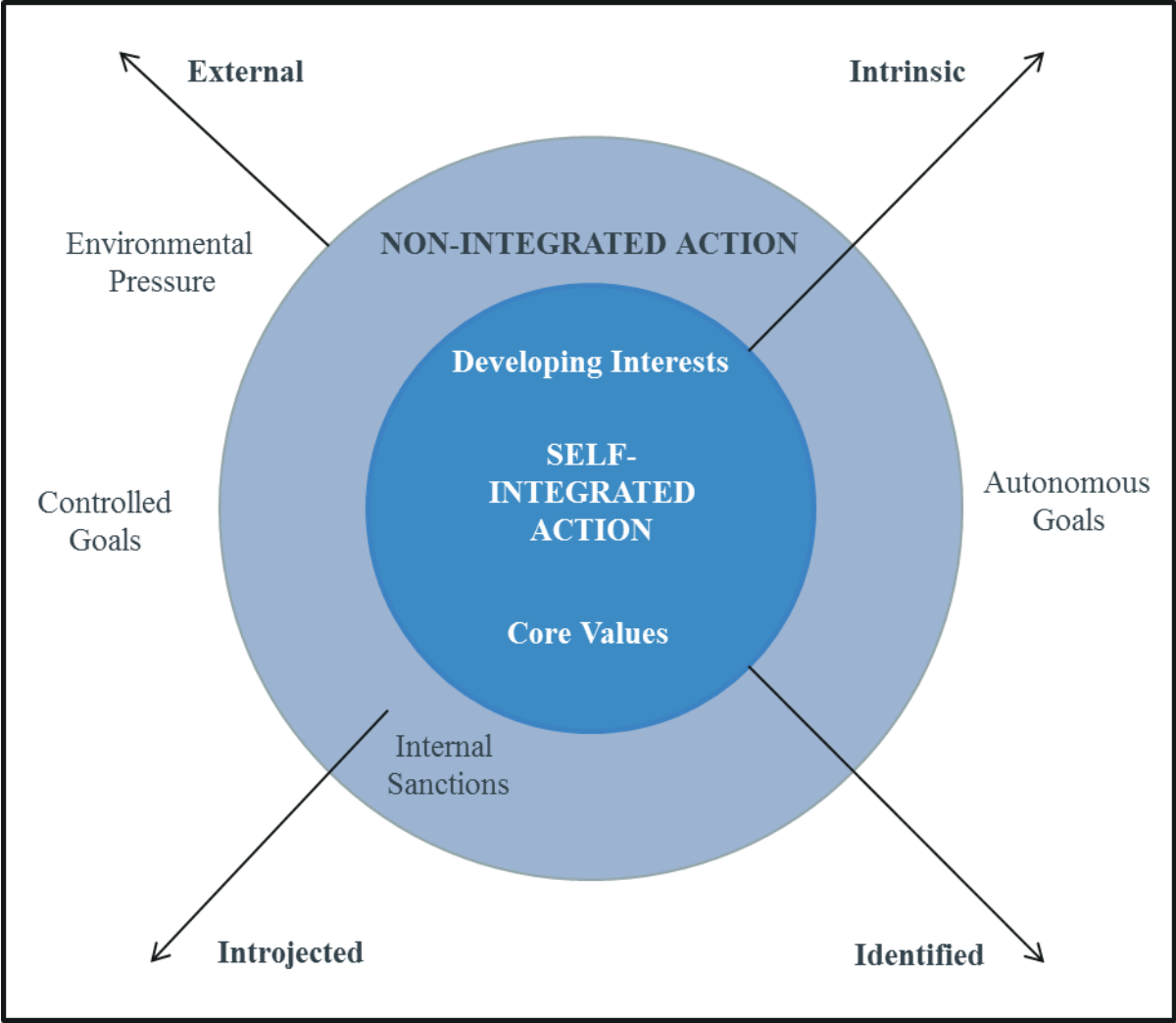
Figure 10. Degrees of Self-Integration of Personal Goals. (Sheldon & Ellliot, 1998, p. 547)

Convincing findings have resulted from research into self-concordant goals. Having predominantly autonomous goals (i.e. more self-concordant goals) leads to more goal progress and increased well-being whereas no link between progress and well-being in controlled motivation goals (i.e. non-self-concordant goals) was found (Koestner, Otis, Powers, Pelletier, & Gagnon, 2008). In a longitudinal study, for instance, goals that were rated by participants as being highly valuable and meaningful (self-

concordant) for them over time, were seen to be associated with lower negative affect scores (Steca, et al., 2016).

In a two-wave study, ruminations (frequent, repetitive and uncontrollable negative thoughts), personal goal progress and goal reasons were investigated using multi-level modeling (Moberly & Dickson, 2016). Rumination is linked to lowered mood, depressive symptoms and anger (Bushman, Bonacci, Pedersen, Vasquez, & Miller, 2005; Thomsen, Mehlsen, Christensen, & Zachariae, 2013) and is seen in motivational psychology as a response to problematic goal pursuit (Martin & Tesser, 1996). After controlling for trait ruminations, Moberly and Dickson (2016) found that controlled reasons for pursuing personal goals (non-self-concordant goals) were uniquely associated with goal rumination but not perceived progress, whilst autonomous reasons (self-concordant goals) were uniquely associated with goal progress but not ruminations. This indicates that individuals ruminate on goals because of poor goal integration into the self, rather than the cybernetic explanation of being a consequence of poor goal progress.

In a series of longitudinal studies tracking students' goal pursuit, well-being and feelings of autonomy, relatedness and competence over a semester, Sheldon and Elliot (1999) developed the self-concordance path model of goals (see Figure 11). The model tracks the path from choosing a self-concordant goal to resultant changes in well-being. Choosing self-concordant goals leads to an increase in effort in goal striving. This is perhaps because these goals represent some stable and abiding aspects of personality (Sheldon & Elliot, 1998). This extra effort increases the chances of goal progress and goal attainment. Peoples' chances of reaching self-concordant goals are therefore higher than for non-self-concordant goals. Attaining goals leads to needs satisfaction—goal attainment is linked with stronger feelings of relatedness, competence and autonomy in daily life, and these need satisfying experiences lead to a rise in global well-being. There is also an interaction effect between self-concordance and goal attainment when predicting needs satisfaction; goal attainment particularly predicted need satisfaction when the goals were self-concordant goals as oppose to non-self-concordant goals (Sheldon & Elliot, 1999).

More recent findings come to a slightly different conclusion to Sheldon & Elliot (1998). In a multi-level study carried out over the course of a semester, self-concordant goals were found to feel easier and more natural to individuals compared to other goals in their goal set (Werner, Milyavskaya, Foxen-Craft & Koestner, 2016). Werner and her colleagues also found that it was actually this feeling of ease and not the increased effort into self-concordant goals that mediates the relationship between personal goal motivation and goal progress. Participants were more likely to make progress on self-concordant goals over their other goals, as they were considered more effortless and not because they put more effort into these goals. Interestingly self-concordant goals feel less effortful regardless of whether they are actually more difficult.
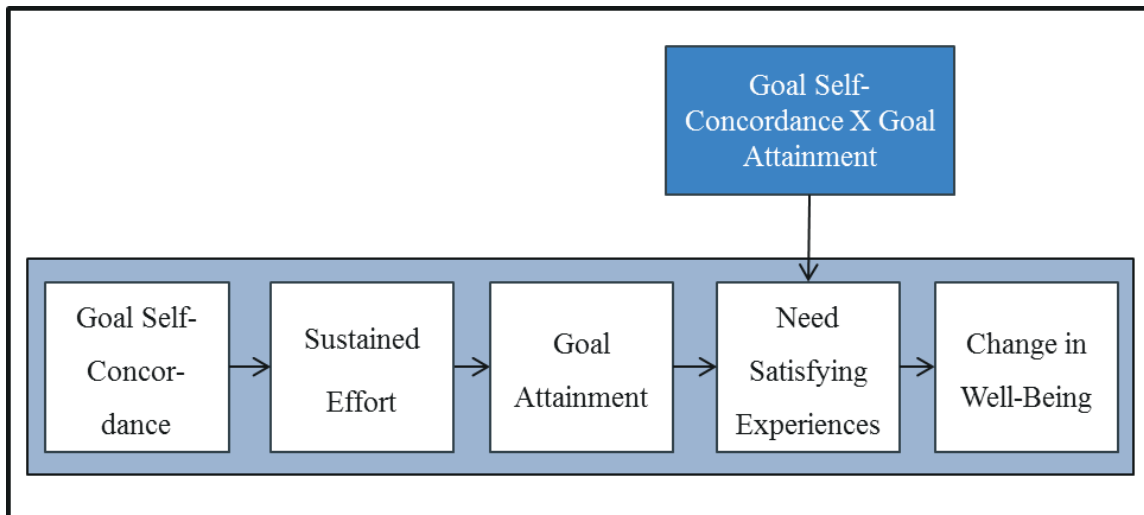
Figure 11. The Self-Concordance Model (Sheldon & Elliot, 1999, p.483)

There is also evidence that self-concordant goals are important in adolescence. Lüdtke (2006; study 2) investigated the reasons German adolescents gave for following their personal goals and how this affected their well-being. The adolescents rated the reasons for choosing their personal goals on a perceived locus of causality scale (PLOC; Ryan & Connell, 1989). The PLOC scale recorded whether the adolescents chose their goals on *extrinsic*, *introjected, identified* or *intrinsic* grounds (see Figure 10). Adolescents who chose their goals on self-concordant grounds (identified or intrinsic reasons) had higher overall SWB scores. Being true to one's authentic self, then, is an important factor in well-being during the adolescent years.

3.2   Personal Goal Content and Well-Being

Individuals can have very different personal goals to each other. How far then, does the content of our goals have an impact on our well-being? Does pursuing some goals lead us to be more satisfied than pursuing others? And, if so, why is this? In this section, I focus on the content of peoples' goals, especially adolescents, and how their well-being can be affected by the goals that they pursue.

Within educational psychology, personal goals are often content coded into learning and mastery, and personal best, or performance and ability goals (Ames, 1984; Dweck, 1986, 1988; Dweck & Elliott, 1984; Martin & Elliot, 2016; see section 2.1.1 for an overview). Mastery goals focus on the process of learning and developing new skills, whilst performance goals focus on being judged as able by other. Martin and Elliot (2016) carried out a longitudinal study with high school students that spanned an academic year, and found that personal-best goals and mastery goals were associated with positivity, in that they lead to higher motivation and engagement over time. The role of performance goals, on the other hand, was reported to be either neutral or negative. Ames and Archer (1988) found that high-school students who perceived mastery goals as being more important displayed a more positive attitude towards their class believing that success comes from one's own efforts. Students who thought

performance goals were more important, focused more on ability, tended to rate their own abilities negatively, and ascribed failures to insufficient ability. More recently, the effect of negative feedback was tested experimentally on either performance or learning goals (Cianci, Klein & Seijts, 2010). Students given a learning goal rather than a performance goal were much less tense following negative feedback and subsequently performed better. For highly conscientious students these results were amplified. Goal content, then, can affect our well-being in terms of our attitudes, the way we cope with daily hurdles, such as receiving negative feedback, and our subsequent performance.

As outlined in section 2.1.1., the content of goals can also be categorised into approach (e.g., *to become a better dancer*) and avoidance goals (e.g., *to not become like my grandmother*). These differently poled goals have differing impacts on peoples' well-being. Having many avoidance goals can lead to lower satisfaction with life (Elliot, Sheldon & Church, 1997) and high levels of anxiety (Emmons & Kaiser, 1996). Higher numbers of avoidance goals also come with higher levels of pessimism and depression, whilst more approach goals are associated with higher levels of optimism and lower depression (Elliot & Sheldon, 1997). Striving towards daily approach goals is positively associated with SWB (albeit weekly) whilst working on daily avoidance goals is negatively associated with SWB (King, Richards & Stemmerich, 1998). The negative association between avoidance goals and SWB could stem from the difficulty in monitoring progress towards such goals (Elliot & Sheldon, 1997). Consider the goal, '*to avoid being like my grandmother'*. It is hard to identify specific progress points to monitor headway towards this goal and (as discussed in Section 3.1.1.1), a feeling of goal progress is critical for our well-being. Avoidance goals are also often associated with controlled rather than self-determined behaviour (Emmons & Kaiser, 1996).

A separation of personal goals into their extrinsic or intrinsic content is also possible (c.f. Section 2.1.1). Individuals with more extrinsic goals aiming for financial successes, material possessions or power tend to report lower SWB and higher stress than those with intrinsic goals, aiming for self-acceptance and affiliation (Sheldon, Ryan, Deci & Kasser, 2004). Extrinsic goals also link with low self-confidence, more addictive behaviours (high television and drug consumption) and lower relationship quality (Kasser & Ryan, 2001). When comparing German and American students' goals, Schmuck, Kasser and Ryan (2000) found that focus on extrinsic goals was linked to decreased SWB and focus on intrinsic goals was linked to increased SWB in both countries.

Personal goal content also describes different domains or life areas (Little, 1989; Nurmi, 1991; Salmela-Aro & Nurmi, 1997a). Striving towards goals in different domains may affect people's well-being differently. In a time-sampling study focusing on work and family goals in employed parents (Hoppmann & Klumb, 2012), parents making progress towards work and family goals had higher positive and lower negative daily affect scores. Surprisingly however, only progress towards family

goals lead to a lowering of cortisol levels (indicating lowering stress levels). Such findings suggest that reactions to goal progress may differ depending on the goal's content.

3.2.1 The Content of Adolescents' Personal Goals

In research into adolescents' goal content and SWB, satisfaction scores are often examined in conjunction with successful adaptation to age-appropriate tasks (see Section 2.2.2), with the content of adolescents' goals either reflecting or not reflecting these tasks. A row of longitudinal studies (Nurmi & Salmela-Aro, 2002; Salmela-Aro et al., 2001; Salmela-Aro et al., 2007; Salmela-Aro & Nurmi, 1997a) show that adolescents who have goals with self-focused content rather than goals focused on developmental tasks, tend to have lower satisfaction levels and higher depressive symptoms. Self-focused goals concentrate on some aspect of personality development, or rumination on one's self, health or life. These goals can lead to lower SWB as they do not aid adolescents' development towards the age appropriate tasks that they should be concentrating on, leading to more rumination and to the setting of more self-focused goals.

In a study of adolescents' personal goals, Lüdtke (2006) identified 15 goal content areas (e.g., work, education, independence, and travel), some of these (such as independence), seem specifically pertinent to adolescence and typical of healthy development. Lüdtke then separated these 15 content areas into a broader categorisation of intrinsic, extrinsic and other goals. After controlling for gender, the number of intrinsic or extrinsic personal goals the adolescents held had no bearing on their SWB (Lüdtke, 2006). This is contrary to the results of Salmela-Aro and her colleagues' study (2007) and suggests that the links between adolescent well-being and their goal content are still unclear.

Overall, the content of an individual's goal seems to impact on their well-being. Links have been found between goal content and depression, anxiety, attitude, success on subsequent tasks, stress and anxiety, negative and positive affect, and general life satisfaction to name but a few. For adolescents, the content of their personal goals also seems an important issue, although conflicting results point towards the need for further investigations into the area of adolescent goal content and well-being.

3.3 Personal Goal Structure and Well-Being

Much research surrounding personal goals isolates single goals as units of measurement. In reality however, people often have multiple goals that they strive for simultaneously, naming 15 personal goals on average when prompted (Emmons, 1986). Personal goals are hierarchical; with a number of sub-goals serving higher-order motives (Emmons, 1989). This is discussed further in the next section. Having multiple hierarchical goals has a bearing on people's well-being as they prioritise and accommodate their goals into daily life. The interrelations between goals are critical in terms of well-being (Austin & Vancouver, 1996).

3.3.1 Hierarchical Personal Goals and Well-Being

The hierarchical level of the goals that we value is a structural characteristic that can influence our well-being. Little (1989) noted that some dedicate their lives to striving for magnificent obsessions whilst the rest are happy to concentrate their activities on trivial pursuits. Emmons (1992) investigated the level of abstraction in personal goals in relation to both physical and emotional well-being. He found that high-level strivers describe their goals in broad, abstract and expansive terms (e.g. *to increase my knowledge of the world*) and low-level strivers in superficial, concrete or specific terms (e.g. *to be organised and neat*). Using both experience sampling and cross-sectional measures, Emmons (1992) found that the physical and psychological well-being scores did not tally. Low-level strivers tended to present with less negative affect but an increased risk for physical symptoms and high-level strivers tended to experience more psychological distress but less physical symptomology. There seems to be a trade-off between depression and illness. The link between high-level goals and increased negative affect may be due to the increased difficulty in monitoring progress towards goals that are more abstract. This echoes a reason offered by Elliot and Sheldon, (1997) for the increased negative affect in pursuing avoidance goals (see section 3.2). The increased physiological symptomology in low-level strivers was explained through possible differences in personality; people following low-level goals conceivably have more repressive personalities (Emmons, 1992). Surprisingly participants rated low-level goals as being no more attainable than high-level goals.

3.3.2 Multiple Personal Goals: Facilitation, Conflict and Well-Being

Pursuing multiple personal goals presents the question: "Are the goals compatible with each other or do they conflict?" Earlier I discussed goal attainability (see section 3.1.2.1). The degree to which a person's goals complement or conflict with each other is also related to attainability — this juxtaposition of multiple goals creates an internal environment within the person. For example, if a student has the goals "*to be diligent*" and "*to be gregarious*" there may be times when these goals conflict. Should they stay home studying and progress towards their diligent goal, or go to a friend's house party, and progress towards their gregarious goal? Striving for both goals simultaneously would be difficult, thus lowering the attainability of one or other of the goals.

Kruglanki and colleagues (2002) cover facilitation and conflict between personal goals in their cognitive goals systems theory. They posit that personal goals are hierarchical, branching down into a number of sub-goals and means to attaining these (see Figure 12). Kruglanki and colleagues posit that interference can occur between goals, sub-goals and means laterally, whilst facilitative links occur between goal representations vertically. These links can vary in magnitude and form, with some instance of facilitation and interference being stronger than others. In terms of form, different goals have more or fewer sub-goals and means to reach it, therefore the one mean could serve more than one

sub-goal or goal (e.g. mean 4, Figure 12), whilst another could have multiple means and an individual must choose which to engage in (see sub-goal 1, Figure 12).
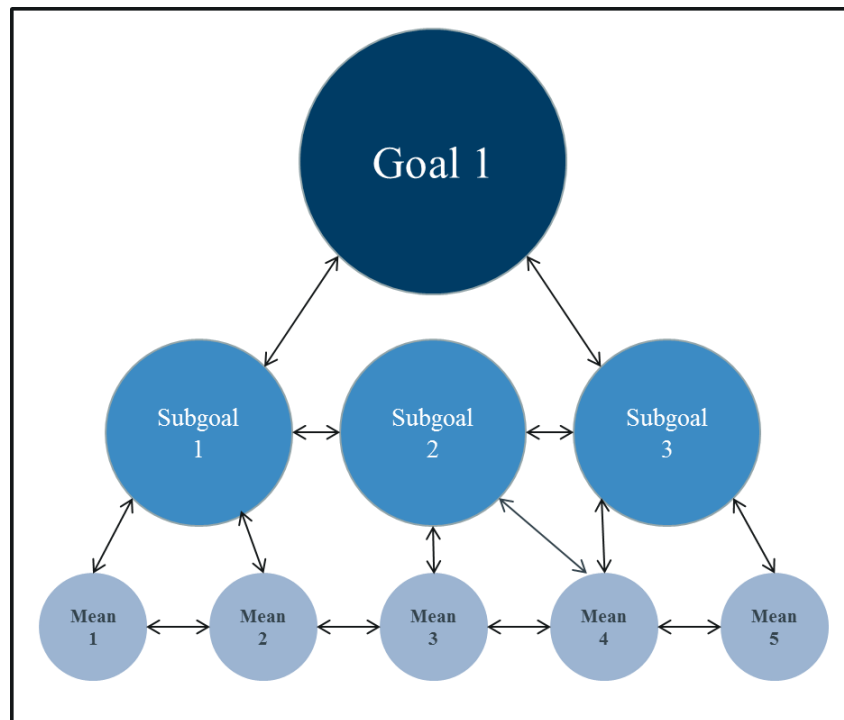
Figure 12. A goals system theory of goals and means (adapted from Kruglanski et al., 2002, p. 334)

In a classic row of studies, Emmons and King (1988) investigated conflicts and ambivalence between goals, in terms of long and short-term repercussions on physical and psychological well-being. Personal strivings frameworks measured the extent to which participants' personal goals conflicted with each other. Conflicts between strivings were associated with lower physical and psychological well-being. Conflicting strivings were linked to increased negative affect and psychosomatic stress symptoms over time in one sample, and low levels of positive affect in another. The goals that were in conflict with each other were less likely to be actively pursued but more likely to be ruminated upon (Emmons & King, 1988).

Riediger and Freund (2004) found that personal goals can be both facilitative and interfering, and criticised Emmons and King's (1988) bipolar view of conflict (very harmful—very helpful). They illustrate this with two goals, "*professional success*" and "*exercising regularly*". The individual may rate the exercise goal as facilitating the work goal as exercise may reduce stress levels making working more efficient, whilst simultaneously interfering with the work goal as exercising takes up time and effort that could have been poured into work. Indeed, using prospective methods the investigators found that interference and facilitation between personal goals were two separate dimensions, not opposites on the same pole. Well-being and involvement in goal striving also link differently with intergoal facilitation and interference; intergoal facilitation cannot predict a person's

well-being whereas intergoal interference is tied with low life satisfaction, low affective well-being and less positive psychological functioning. Additionally, only intergoal facilitation links with more engagement in goal pursuit (Riediger & Freund, 2004). A more recent diary study (Presseau Tait, Johnston, Francis, & Sniehotta, 2013) supported this separation of goal facilitation and conflict.

What about multiple goals and well-being in adolescence? A recent longitudinal study investigated the importance that adolescents assigned to work and family goals and how this related to achieving goal outcomes in adulthood (Lee & Vondracek, 2014). Career and family outcomes were measured through job authority and subjective job success, marriage or cohabitation and subjective family satisfaction. Although the investigators did not measure well-being directly, subjective job success and family satisfaction seem to reflect domain-specific well-being. Adolescents with a balanced approach to these goals—assigning similar importance to both work and family goals in youth whilst believing they could attain these goals, were the most successful at reaching career and family outcomes and being satisfied as adults. Comparatively, adolescents who placed more importance on either family or work goals were less likely to reach career and family outcomes. Some adolescents seem able to coordinate multiple important goals successfully, even if at first glance they seem to conflict as is the case with work and family goals.

3.4 Personal Work Goals, Well-Being and Organisational Outcomes

Individuals can have personal goals in any domain of life. This research project has its focus on personal goals in the occupational domain, which are known as personal work goals. These are, *"self-set goals related to one's job, career, and work"* (Maier & Brunstein, 2001, p. 1034). Such work goals are a reflection of the employee themselves, coupled with contextual aspects of their work (Grant, Little & Phillips, 2007). Personal work goals are self-set, and not goals assigned to the employee by the place of work, such as year-end targets or task performance goals.

In the following sections of this chapter l give a short overview of work attitudes and work behaviour measures typically used in occupational studies to measure aspects of occupational well-being, and then review the literature base of personal work goals and the effects these can have on individual's occupational and subjective well-being. As this project concentrates on the personal work goals of a specific group of workers—German adolescents in a dual system vocational training programme, firstly I present a discourse outlining this training programme and the problems that the system has with retention. At the end of this chapter, I review the little research there is pertaining to the work goals of adolescents and vocational trainees in relation to their working environment.

3.4.1 Discourse: Vocational Training in Germany

Vocational training for young school leavers in Germany has had a long tradition (BIBB, 2016). With its hallmark on-the-job training combined with theoretical training at a vocational school, the German

dual system of Vocational Educational Training (VET) is world-renowned (Graf, 2013; Pilz, 2012; Pilz & Pierenkemper, 2014). The VET system in Germany is closely linked to the labour market. Successfully completing job training has far-reaching implications for youths in today's industrialised and rather unstable labour market (Uhly, 2007), with a higher salary and more stability offered to trained rather than untrained workers, (BIBB, 2013; Gesthuizen & Scheepers, 2010; Gesthuizen, Solga & Künster, 2011; Solga, 2008) as well as the additional social prestige that goes with completing formal job training. Germany's VET system, therefore, offers an appealing alternative to the academic educational route of completing college and possibly going on to university (Powel & Solga, 2011).

The German school system is relatively complicated (see Figure 13 for a simplified overview) as it ability streams pupils into four main school types for secondary education: *Sonderschule*[4] (special educational needs schools), *Hauptschule* (secondary modern schools), *Realschule* (secondary schools) and *Gymnasium* (Grammar schools). In addition, there are also *Gesamtschulen* (comprehensive schools) housing pupils from all school types. To enter the dual VET system, pupils need to have finished compulsory full-time schooling, which in most counties in Germany is ten years' schooling[5]. Figures from a recent study show that approximately 15% of pupils starting VET came from the *Hauptschulen*, with another 38% transitioning from the *Realschulen*. The other 45% of new trainees come from the *Gymnasium* and completed their *Abitur*; the German upper-high school leaving certificate (Azubi.report; 2014).

At present, trainees can choose from 345 jobs (Bundesagentur für Arbeit, 2016) from a wide spectrum of occupational fields, including industry, service, health, sales, and banking and finance. Nevertheless, the prerequisite to highly skilled occupations such as doctors, lawyers, teachers, architects, or engineers is still a university degree. Most of the German dual VET programmes span 3 years with 54 of the 345 jobs needing 4 years to complete training. A few jobs can be trained for in 24 months, but these are the exception rather than the norm with only 38 jobs in this sector (BIBB, 2016). Within the dual programme, a trainee will typically attend a scholastic programme designed around the particular requirements of the chosen job, as well as thorough on-the-job training. To enter such a programme the candidates must apply for the on-the-job training as they would normally for any job, attend and pass a job interview at the desired workplace, and be accepted for study at a vocational school [*Berufschule*]. Recent figures indicate that candidates send an average of 21 applications out to firms, before finding a training position (Azubi.report, 2014).

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[4] For the sake of clarity and to avoid inaccuracies due to translations I shall use the German terms for the school types in this thesis.

[5] Pupils can leave the *Hauptschule* after 9 years' schooling, but in most German counties they must then attend an extra year of schooling at a vocational preparation school in order to qualify for the dual-system VET.
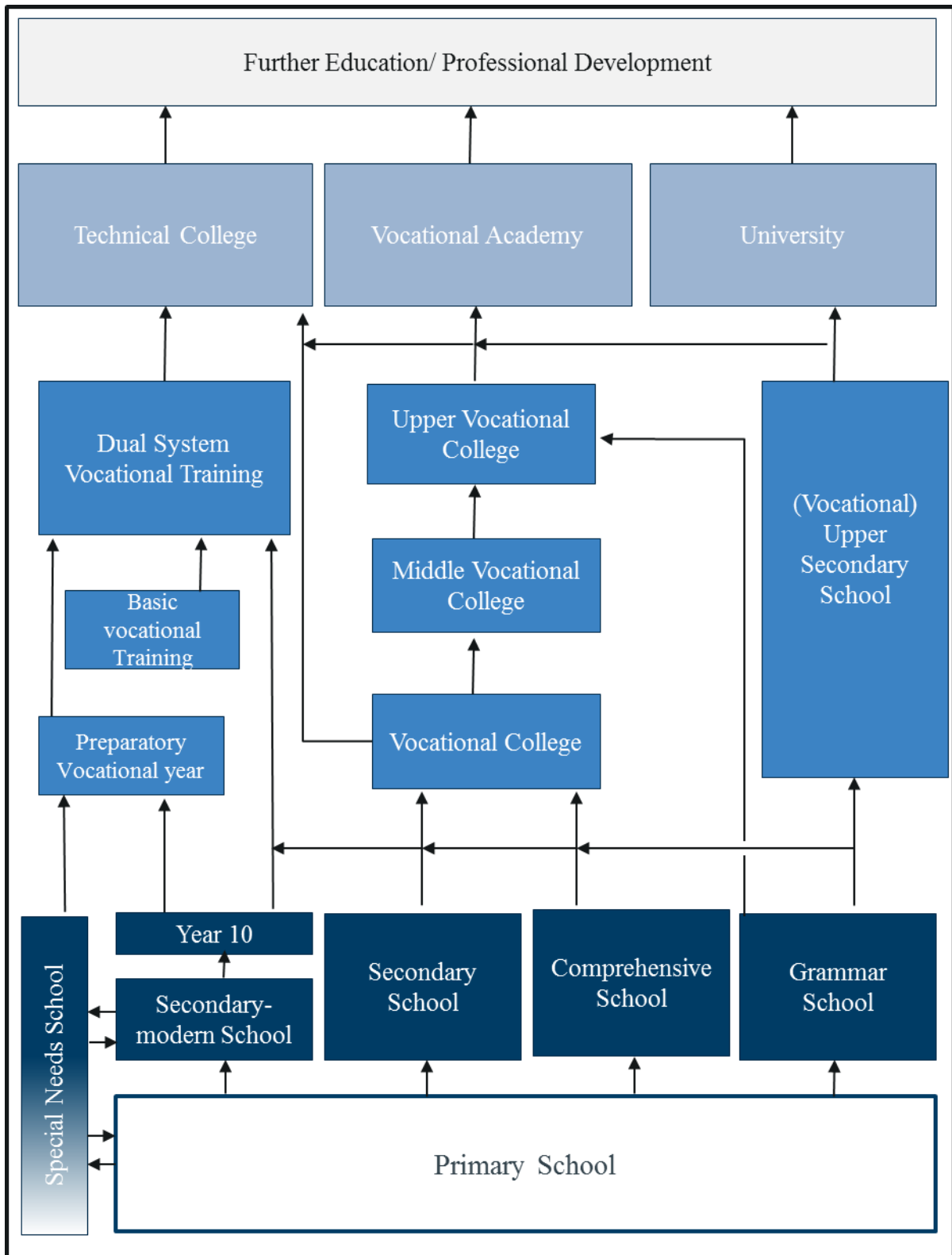
Figure 13. Overview of the School System in the Federal Republic of Germany

The latest figures show that 1,358,500 youths were carrying out a dual-system vocational training programme in 2014 (BIBB, 2016). In the school year of 2015, 522,000 adolescents entered vocational training, which was a slight rise from the year before (BIBB, 2016). Nationally, approximately half of

a year-group enters the dual-system (Federal Ministry of Education and Research, 2003). Of the applicants for VET in 2015, 42% were female (BIBB, 2016), which is an underrepresentation of this group in the training field. According to the German Federal Institute for Vocational Training [Bundesinstitut für Berufsbildung, BIBB] which is the body that oversees the vocational training programme in Germany, the VET system suffers from extreme gender segregation commensurate with certain gendered jobs: either males or females dominate most jobs (BiBB, 2012b). In fact, 75% of the females within the VET system learn a cluster of 25 jobs, made up mainly of sales and the caring professions (BIBB, 2012a). This pattern has not changed since the early 80s (Uhly, 2007).

The cost of the dual-system VET for individual companies is hard to estimate due to the variety of jobs on offer. In the most recent series of analyses, the German Federal Institute for Vocational Training calculated the average costs to a firm per trainee per year to be €17,933 (BIBB, 2016; see Figure 14). This covers personnel costs for the trainee (€11,018) and trainer (€4,125), facilities and material costs (€925) and other expenditures (€1,866). The trainees also work, at an estimated benefit for the firm of €12,535 per trainee per year covering approximately 70% of the costs. This results in costs of approximately €5,398 per trainee per year. Companies also see trainees as an investment in their future as they look at the long-term rather than short-term gains of the training system (Federal Ministry of Education and Research, 2003). Companies who employ the trainees that they have trained indicate that these workers have a good grounding in their company's operations and services (Federal Ministry of Education and Research, 2003). Furthermore, those companies that do not take on vocational trainees must also invest money into training external staff and are more at risk of hiring permanent staff unsuitable for the job. Nevertheless, real costs for German companies remain, totalling an estimated €8.5 billion per year (Baumann, Schönfeld & Wenzelmann, 2010). Additional costs incurred relating to the VET system includes Governmental budgets and subventions from the German Job Centre (Bundesagentür für Arbeit). In total, the VET dual-system costs Germany around €11 Billion per year, corresponding to 0.5% of the Gross Domestic Product of the country (BIBB, 2013).

The BIBB has recently raised concerns that the number of trainees exiting their vocational training before the end of the three-year programme has reached epic proportions. In 2010 the number of trainees quitting their programmes was a staggering 142,242 (BIBB, 2012a), which rose to 143,100 in 2014 (BIBB, 2016). This is one in four of all traineeships (24.6%). Unfortunately, quitting training can have far-reaching consequences for the young adults in their future careers, because although there is the possibility to transfer training firms, this is only possible if the firms are in the same industry, and the same training job can be pursued at the new firm. Otherwise, quitting the programme means starting again to learn a different job, or trying one's luck as an unskilled untrained worker in the job market.
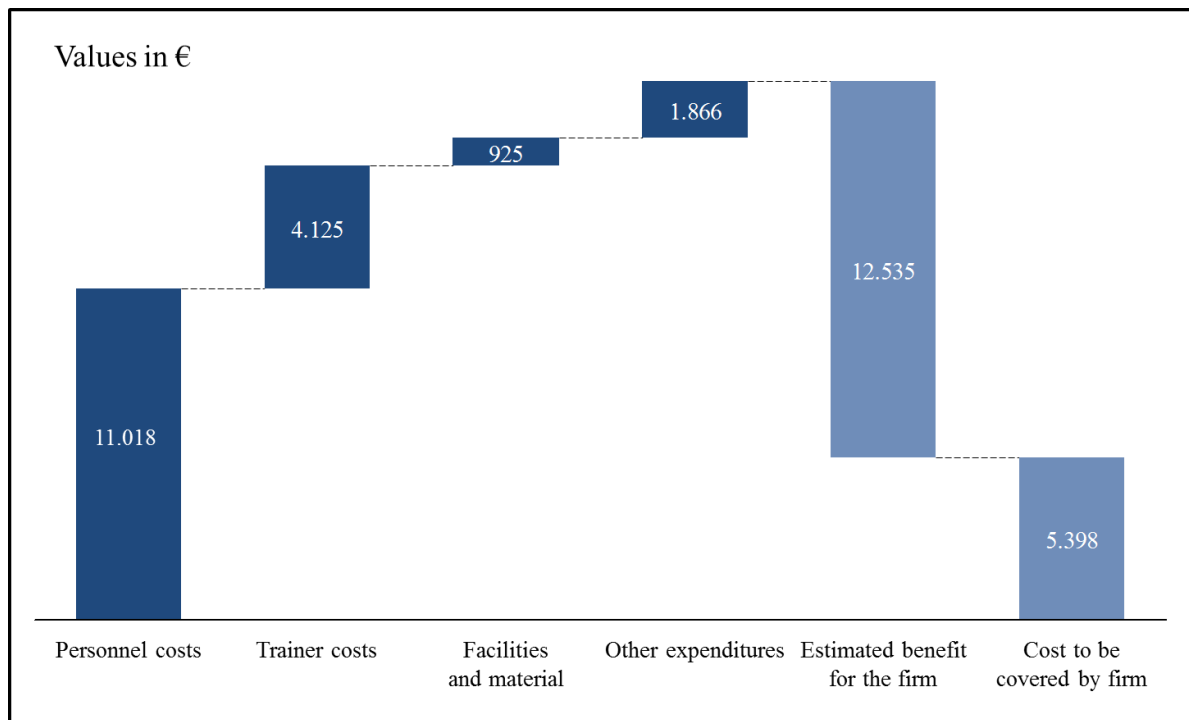
Figure 14. The cost and benefit of a dual system vocational trainee in Germany to a firm (Figures from BIBB, 2016)

There are likely to be manifest reasons why so many adolescents opt out of the programme. Most of the young people have their first encounters with an occupational setting during their VET, which presents them with a number of challenges. Socialisation in a company and the working world is challenging; it is a stressful time with uncertainty about how to behave and what to expect in the novel prevailing situation. (Nelson & Quick, 1991). In a recent study, approximately half of the participants who quit their dual-system VET attributed this to having incorrect expectations of the job, or having lost interest in the job, whilst a further 45% left because of interpersonal problems with their superiors (28.5%) and colleagues (16.4%) (Azubi.report, 2014). A mixture of occupational and motivation psychology literature can help explain these reasons. For example, in the case of incorrect expectations, it may be that the job simply does not offer the young person enough opportunities for progress on their personal work goals, and therefore may not be a particularly suitable place for them to train. The employer-employee relationship literature in occupational psychology goes a long way in outlining the very real problems that occur when communication and trust between the employer-employee (or translated to our case, the trainee-trainer) break down. One aspect of this, the psychological contract, is discussed in Chapter 4.

Returning now to the main literature review of personal goals, I turn to the small research body relating to personal goals in work settings. I will outline how personal goals at work can have an impact on individuals' SWB and domain specific occupational well-being.

3.4.2   Measuring Well-Being in the Occupational Domain: Job attitudes

The most highly studied job attitude is job (or work) satisfaction (Judge & Church, 2003). A well-known definition of job satisfaction is "*a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences*" (Locke, 1976, p. 1300). Typically, researchers view job satisfaction as a global concept comprised of many facets (Judge & Klinger, 2008). Numerous measures of job satisfaction exist, each differing in their scope, specificity and time of reference (Lent & Brown, 2008). Two measures though, dominate the field; the Job Descriptive Index (JDI), measuring satisfaction with pay, promotions, co-workers, supervision, and the work itself (e.g., Smith, Kendall & Hulin, 1969), and the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England & Lofquist, 1967) which covers 20 facets. There are also global job satisfaction scales (e.g., Brayfield & Rothe, 1951) measuring overall satisfaction at work. A vast body of literature shows that job satisfaction is strongly and reliably associated with subjective well-being (Judge & Kingler, 2008) and has also been linked to a range of workplace behaviours such as organisational citizenship behaviours (Bateman & Organ, 1983), work attendance (Wegge, Schmidt, Parkes, & van Dick, 2007), job performance (Judge, Thoresen, Bono & Patton, 2001) and turnover (Saari & Judge, 2004). Indeed, turnover itself, and employees' intentions to leave are also used as indications of occupational well-being. Exiting a firm is a plain indication that there is something amiss, and increased thoughts and plans relating to leaving are also a sign of a lack of flourishing at work (Weng & McElroy, 2012).

Stress is rather a buzz-word when discussing well-being at work. One widely used measure of job stress is the Job Content Questionnaire (Karasek, 1985). Here participants rate their perceived amounts of job demands (e.g., *lifting heavy loads; physical effort*), the amount of autonomy and control they have over their daily jobs (e.g., *allows own decisions; learn new things*), and the amount of social support they receive at work (e.g. *supervisor is concerned; co-worker interested in me*). Increased job demands, low autonomy and control and low social support are hypothesised to lead to increased stress. Job control and social support in the workplace are also moderators between job demands and employee outcomes including job satisfaction (Brough & Williams, 2007; Dollard, 1997), burnout (Bourbonnais, Comeau, & Vezina, 1999), depression (de Lange, Taris, Kompier, Houtman, & Bongers, 2004), sickness rates (Vahtera, Kivimäi, Pentti, & Theorell, 2000), and emotional exhaustion (Näring, Briët & Brouwers, 2006).

A growing trend is to include burnout as an indicator of well-being at work. This syndrome, characterised by mental and emotional exhaustion and cynicism, is typically measured using a three-facetted approach with items covering emotional exhaustion (feeling empty and worn out), depersonalization (having a negative and cynical attitude towards work), and personal accomplishment (evaluating one's work achievements negatively) (Maslach & Jackson, 1981). As with job satisfaction high burnout levels has been reliably associated with a variety of personal and occupational outcomes,

such as depression (Ahola & Hakanen, 2007), insomnia (Vela-Buenoa et al., 2008) high turnover and absenteeism (Siefert, Jayaratne & Chess, 1991; Toppinen-Tanner, Ojajärvi, Väänaänen, Kalimo & Jäppinen, 2005), and numerous measures of objective performance (Taris, 2006).

Physiological measures of stress and ill-being are also relatively common outcome measures in studies relating to personal work goals. Firstly, physiological symptomology measures of somatic complaints, such as the Work Ability Index (Tuomi, Ilmarinen, Jahkola, Katajarinne, & Tulkki, 1998) and the General Health Questionnaire (Goldberg & Hillier, 1979), are used to indicate the physical health of participants (ter Doest, Maes, Gebhardt, Koelewijn, 2006). Secondly, reports of chronic and episodic pain can also indicate well- or rather ill-being (e.g., Karoly & Ruehlman, 1996). Lastly, a common measure of workers' overall health in occupational research is rates of absenteeism, which has the advantage of being objectively quantifiable.

For firms, the performance of its workers is critical, having direct consequences for numerous factors, including gross profit, safety records, innovative and creative advancements and market competitiveness (Applebaum, Bailey, Berg. & Kalleberg, 2000) Worker performance is an important well-being measure for the firm itself, which can be subjectively measured through self-report measures or supervisor ratings (e.g., Greguras & Diefendorff, 2010). Objective measures of job performance tally concrete outcomes such as sales made, cars repaired, business cases signed or papers published (e.g., Locke, Smith, Erez, Chah, & Schaffer, 1994). In the literature, performance can also refer to the amount of progress employees make towards employer set work goals (e.g., Wiese, 2007). This is sometimes the case in research stemming from goal setting theory (Locke & Latham, 1984; see section 2.1.1).

Organisational citizenship behaviours (OCBs) are discretionary behaviours which are not included in an employee's job description and for which they receive no remuneration, but which help the organisation in its functioning (Organ, 1988). OCBs are often used as an outcome in occupational research as they can be seen as a reflection of the amount of commitment a worker has for their organisation (Robbins, Judge & Cambel, 2010). Organisations need employees who display OCBs, as it ensures the smooth running of the daily workflow and firms with high OCB rates outperform those with low rates (Bolino & Turnley, 2003). Classically psychologists measure OCBs by employees, or their supervisors rating their behaviour on scales of altruism, courtesy, conscientiousness, civic virtue and sportsmanship (e.g. Organ, 1988). Alternatively, OCBs can be measured through the factors of *individual* (OCB-I, e.g., helping other team members) and *organisational* (OCB-O, e.g., volunteering for extra work) behaviours (Turnley Bolino, Lester, & Bloodgood., 2003; Williams & Anderson, 1991).

3.5 Personal Work Goals and Well-Being at Work

The workplace has specific situational and social factors which make it an inherently goal-oriented environment (Hyvönen, 2011). At work, employees strive for organisational goals, such as reaching set quality standards, increasing profit margins, selling more products and reaching minimum customer service requirements. Simultaneously, employees have their own personal agendas—goals that they set themselves relating to their daily work, their careers and jobs. Examples of personal work goals are; "*get a full-time contract at the bakery*"; "*finish my management training*"; and "*become the best mechanic in town*". Literature relating to self-set personal work goals is rather sparse (Pomaki & Maes, 2002; Salmela-Aro, Näätänen, & Nurmi, 2004) with research gaps indicating future research opportunities. Nevertheless, a few studies highlight the influence personal work goals have in employees' lives and the consequences of striving for personal work goals from a well-being standpoint. Studies focusing on adolescent personal work goals are few and far between and mostly concentrate on successful organisational socialisation (e.g., Maier & Brunstein, 2001; Stumpp, 2006) and the transition from school to work (Dietrich, Jokiaari & Nurmi, 2012; Nurmi & Salmela-Aro, 2002).

The following sections of this chapter summarise the literature surrounding personal work goals, concentrating in particular on occupational well-being, job attitudes and work behaviours. I follow a similar structure to Section 3.1 looking first at the role of progress, commitment, attainability and self-concordance in work goals. I then discuss the content and structure of personal work goals, and how the job environment can foster or hinder our work goal progress. I conclude this chapter with literature pertaining to the role that personal work goals play in the lives of adolescents.

3.5.1 Personal Work Goal Progress, Attainment and Well-Being

Personal goals in our occupational lives may have far-reaching consequences for our well-being. After all, we do spend a great deal of our time in the workplace. In the same way that personal goals in other domains provide our days with structure and meaning, the goals that we pursue at work could help us navigate our working lives and actively shape our careers. In order to unpick the relationship between well-being and personal work goals I first turn to look at personal work goal progress and attainment.

3.5.1.1 Personal Work Goal Progress and Well-Being

Personal goal progress, in general, is vital for well-being (see Section 3.1.1) but results relating to work goal progress are mixed. In Lent and Brown's (2006) social-cognitive career theory of work satisfaction (see Figure 15), work satisfaction is hypothesised to be predicted by five features (goal progress, goal and efficacy relevant supports, work conditions, self-efficacy, and personality traits). Duffy and Lent (2009) found that although the overall model had good fit scores, there was no significant relationship between goal progress and work satisfaction in a sample of teachers. Results

indicated that the most satisfied teachers were confident in their ability to complete work-related goals, have high trait positive effect and have a supportive work environment.
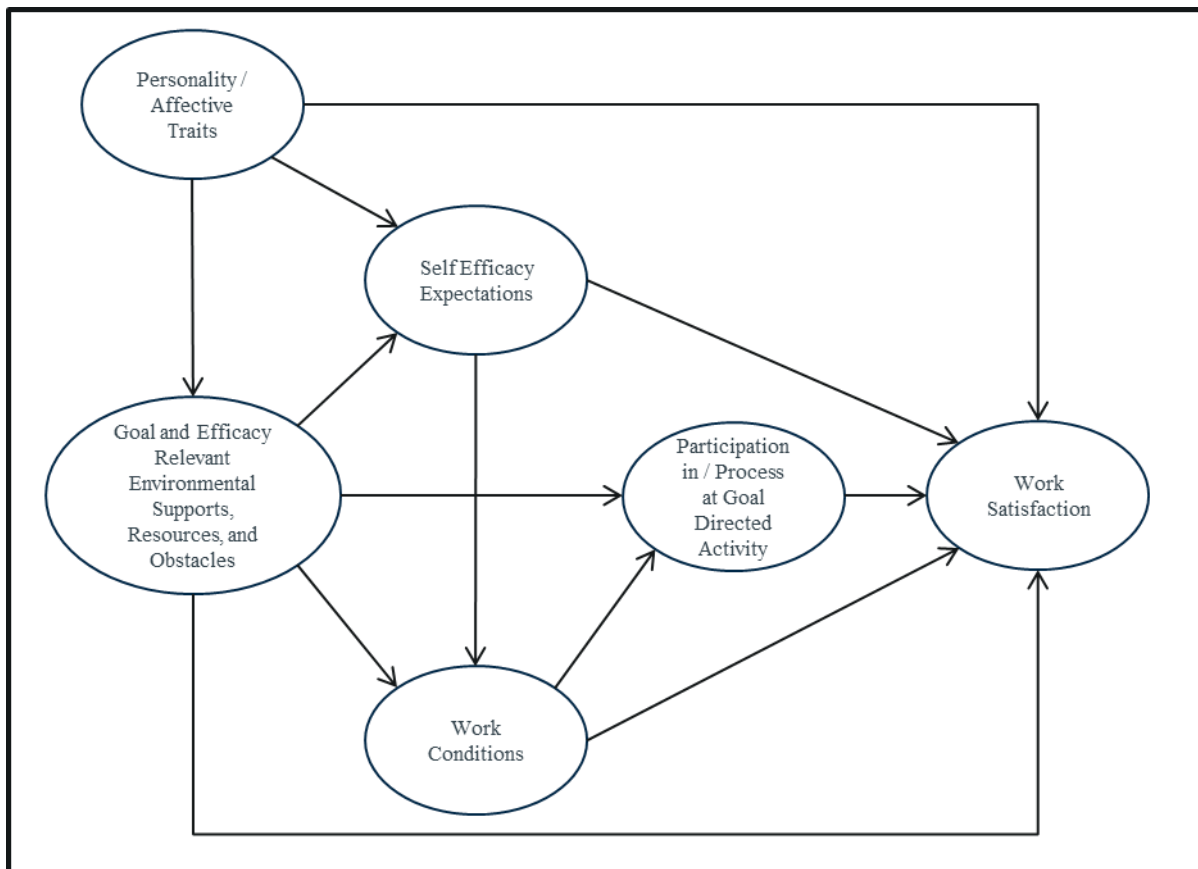
Figure 15. The Social-Cognitive Career Theory of Work Satisfaction (Lent & Brown, 2006; Duffy & Lent, 2009, p. 213)

Similarly, in a three-year longitudinal study, Wiese and Freund (2005) found that work goal progress alone was not associated with occupational or general well-being over time. Progress, however, was a powerful predictor of the employees' ratings of their own occupational success. These findings may result from the study's long-term approach as links between work goal progress and satisfaction have been found in shorter-term studies using diary and experience sampling methods (e.g., Harris et al., 2003).

Evidence that work goal progress impacts well-being also exists. A more recent study (Creed, Wamelink & Hu, 2015) focused on adolescents and their work goal progress discrepancies. That is, the perceived gap between the actual progress being made towards career or work goals and the progress that needs to be made to attain their goal. The greater the perceived discrepancies were in progress towards work and career goals, the more career related distress the young people displayed. This relationship was even more pronounced when the adolescents received negative work-related feedback from significant others.

A further study investigated managers' occupational career growth (Weng & McElroy, 2012). Occupational career growth is described as, a multi-dimentional conceptualisation which measured "*degree to which an individual perceives that their current organization creates an environment in which the employee is able to meet his/her career-related needs and reinforces those accomplishments through promotions and compensation*" (Weng & McElroy, p.256). Three factors make up occupational career growth: career goal progress, professional ability development and rewards. They found that all three of these factors were negatively associated with turnover intentions with career goal progress making the biggest mark. Making progress on career goals leads to a lowered desire to leave the firm. This has obvious financial, organisational and motivational benefits for both the organisation and the employees themselves and is an important finding.

Looking at interaction effects associated with work goal progress, progress towards more difficult work goals influence employees' well-being scores more than easier goals (Wiese & Freund, 2005) in line with goal setting theory (e.g., Lee, Locke & Latham, 1989). Trainee teachers who made progress towards personal work goals were more satisfied with their jobs and displayed more organisational commitment than those trainees who did not make sufficient progress, but only if their levels of conscientiousness were low (Hülsheger & Maier, 2010). Furthermore, progressing towards salient personal work goals may be particularly beneficial to employees with low expectations of goal attainability (Pomaki, Karoly & Maes, 2009).

There is also evidence that progress towards personal work goals is an important mediator in the process of organisational socialisation. Rappensberger, Maier and Wittmann (1998) found that successful striving for personal work goals was a mediator in the relationship between social support and realistic job previews, two key factors in successful socialisation. Their research indicates that supportive socialisation behaviours help new employees to progress towards their personal work goals, which subsequently give rise to successful adaptation to the new job.

3.5.1.2 Personal Work Goal Attainment and Well-Being

There is little research on work goal attainment and well-being and what there is, shows contradictory results. Harris et al. (2003) conducted a diary study over 2 weeks and found that attainment towards a work goal over the day lead to an increase in activated effect (feeling motivated and active). Here, the importance of the work goals was a key factor, with a stronger relationship evinced for goals rated as more important. In this study, the researchers set five work goals. Perhaps the mediation relationship of goal importance would have been smaller if participants had rated self-set goals, as there may have been less variance in importance ratings in these goals—if participants choose five goals, they are all likely to be highly important for the individual.

Greguras and Diefendorff (2010) found work goal attainment directly predicted life satisfaction in a sample of Singaporean workers. Conversely, personal work goal attainment was not associated with work satisfaction in a study by Judge, Bono, Erez and Locke (2005). Such mixed results also reflect the unclear findings in general personal goal research relating to goal attainment (see Section 3.1.1).

3.5.2 Personal Work Goal Commitment, Attainability and Well-Being

Revisiting the features of the Goals Model of Well-Being (Brunstein & Maier, 2002; see section 3.1.2) I now turn to literature relating to commitment and attainability of personal goals in the work domain and their effects on well-being and affective job attitudes. To my knowledge, there are no studies to date which deal with the motive congruence of personal work goals, the last feature of Brunstein and Maier's (2002) model.

Roberson (1989) carried some of the earliest studies in personal work goal commitment and found work goal commitment to be positively related to goal progress. Moreover, in an experience sampling study of 150 employees, she found that those workers who reported higher commitment to their work goals and higher probabilities that they would attain their goals, were also more satisfied with their jobs (Roberson, 1990). Clearly defined work goals with specific deadlines and clear means of achieving the work goal were also positively related to higher job satisfaction.

In a classic meta-analysis (Klein, Wesson, Hollenbeck, & Alge, 1999) investigated the antecedents and consequences of goal commitment from an occupational standpoint. Increased goal commitment was strongly associated with increased work performance over the studies, whilst goal difficulty moderated this relationship. As for the antecedents, the higher the expectancy for success (attainability) and the more attractive goal attainment was, the higher the recorded goal commitment. As a critique of this research, many of the studies included in the meta-analysis had their roots in goal-setting theory and relied on testing goals that were self-set only in relation to meeting externally imposed work tasks rather than true personal goals.

Maier and Brunstein (2001) carried out a longitudinal study investigating the personal work goals of new employees. They found an interaction between the commitment the employees felt towards their personal work goals (determination, effort and initiation) and goal attainability (opportunity, supervisor and co-worker support, and control), which uniquely explained changes in the employees' job satisfaction and organisational commitment levels in the first eight months of their new jobs. These findings were relatively stable over time. Additionally, personal work goal progress was a mediator in the relationship between the interaction of attainability and commitment to work goals, and job satisfaction and work commitment. Maier and Brunstein (2001) also make two observations that are central to this dissertation, firstly that: "[…] *newcomers enter organisations with their own goals in mind and strive to enact them right after the beginning of employment"* (p.1039). Secondly,

during the socialisation period, newcomers to work appraise their work situations through the lens of their own personal work goals with these appraisals influencing their attitudes towards the job (job satisfaction and organisational commitment). Having a job environment, colleagues and superiors, that support the job starter's pursuit towards their valued work goals, is likely to lead to a more positive attitude at work and more successful goal pursuit for the worker.

3.5.2.1   The Facilitation and Hindrance of the Work Environment and Attainability of Work Goals

Having a job environment that affords employees enough opportunities to follow their personal goals is clearly a key issue (Maier & Brunstein, 2001) this is, however, often overlooked. More facilitative work environments for employees' work goals are linked positively to workers' job attitudes (higher job satisfaction and personal accomplishment at work) and well-being (lower emotional exhaustion and somatic symptoms) (ter Doest, Maes, Gebhardt & Koelewijn, 2006). Ter Doest and colleagues (2006) also found that personal work goal facilitation explained a unique part of the variance in employee well-being and occupational attitude outcomes, over and above job characteristics (demands, control, support; see Karasek, 1985 for an overview) and demographics. As job characteristic models have dominated the organisational psychology literature for decades, it is refreshing to see this self-regulatory approach of goal pursuit complementing a traditional job characteristic model of well-being at work.

A work environment that supports employees' most important work goals was also associated with a variety of well-being and occupational attitude measures in a study of Dutch health care workers (Pomaki, Maes & ter Does, 2004). With self-generated personal work goals, such as "*finish two new projects*", and "*improve my job performance*", a work environment that was receptive and facilitative to the goals was related to increases in job satisfaction, and decreases in burnout, depression and somatic complaints. Pomaki et al. (2004) emphasise the importance of having a facilitative work environment, as it was associated with all of the outcomes tested in the study.

Lent and colleagues' (Duffy & Lent, 2008; Lent & Brown, 2006; Lent & Brown, 2008) social-cognitive career theory, includes *work conditions* as well as *goal- and efficacy-relevant environmental supports and obstacles* as critical factors in the links between personal work goals and satisfaction at work (see Figure 15). They back the premise that a work environment can facilitate or hinder progress towards one's personal work goals, stemming, for example, from the extent that the work environment offers enough material- or social support. Direct links from a facilitative work environment to increased work satisfaction and indirect links through goal progress and self-efficacy were evinced, but Lent and Brown (2008) call for researchers to test their assumptions in further studies.

There are many aspects of a job environment, one of them being the organisation's work culture. A study focusing on gender issues in Canadian administrators measured the workers' personal goal processes and job satisfaction (Phillips, Little & Goodine, 1997). The perceived supportiveness of the organisation's culture for the employees' personal goals related to higher job satisfaction in women, but not in men, whilst perceived hindrances of personal goals by the organisational culture related to lower job satisfaction for the males but not the females. This study indicates that the different genders interpret opportunities and barriers to personal goals differently.

A more recent study of workers in the telecommunications industry investigated the importance of work context (realistic job previews) on expectancies, personal work goals and performance (Chehade & Hajjar, 2016). Although based solely on a series of Chi-squared tests, and rather flawed in the questionnaire design, the results indicated that the personal goals acted as a moderator between realistic job previews and performance. Workers who reported having a positive job preview tended to set more difficult (higher) personal goals, which lead to higher performance and satisfaction levels than workers with more negative or neutral job previews. These lead to lower personal goals and to lower performance and satisfaction ratings. Chenade and Hajjar (2016) also found that workers take into account the work conditions that are present at the time, in this case the framework of the job previews, when setting their personal work goals. The job preview can be seen as part of the work environment that affected the job goals by being a positive or negative influence and setting constraints, within which the worker can act. Due to the study's methodological weaknesses these results should be interpreted with caution, but do generally indicate that there is a relationship between a positive working environment, personal goals, and work performance.

3.5.2.2   Social Support and Attainability of Work Goals

A good social support network is essential in buffering the demands and strains of daily stressors at work (Johnson & Hall, 1988). How, then, does social support for our personal work goals affect us, and who in the workplace are key players in the support network? These questions have received very little attention in the literature (Duffy & Lent, 2009).

I introduced Lent and Brown's (2006) social cognitive model of work satisfaction in section 3.5.1.1. In this model, one of the five major factors relating to work satisfaction is the extent to which individuals receive support compared to barriers in response to their work goals and self-efficacy (see Figure 15). Duffy and Lent (2009) asked American high-school teachers to rate the amount of work goal related social support they received from fellow teachers, immediate supervisors and school administrators (e.g. "*My fellow teachers behave in ways that conflict with my attempts to accomplish this goal*"). Although the overall model had good fit indices, there was no direct association between work goal related social support and work satisfaction. There was, however, a positive relationship between work

goal related social support and goal progress. Further analysis also revealed an indirect effect of work goal support on work satisfaction through work conditions.

Goal-related social capital also affects young people navigating the transition to work. In a longitudinal study Jokisaari and Nurmi (2005) investigated the role and nature of graduates' work-goal related social ties (people who gave personal work goal related social support) in the transition to work. They found that the question of "*who*" was important in the transition. Having at least one high socioeconomic status goal-related social tie and having weak relationships increased the chances of employment success whilst having a supervisor as a social tie related to increased job quality (increased job satisfaction and lower intentions to quit). Goal related social hindrances, i.e. the amount the social ties hindered the young person's work goal pursuits, was coupled with a higher intention to quit the job and decreases in job satisfaction. The graduates' goal-related social ties also developed with the young people, changing from school friends and school personnel to co-workers and supervisors over the transition period of university to work.

3.5.3 Self-Concordant Personal Work Goals and Well-Being

Personal goal research highlights the benefits that striving for self-appropriate goals (e.g. motive congruent goals and self-concordant goals) have for our well-being (see sections 3.1.2.3 and 3.1.3). As people spend so much of their time at work, a sense of authenticity and self-appropriateness in work pursuits and personal work goals is also likely to affect satisfaction levels and work related attitudes. To my knowledge, no research has been conducted in the work domain to test Brunstein and Maier's (2002) theory, that motive congruent goals have positive impacts on well-being. Nevertheless, the theory of self-concordant goals (Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001) has been applied to research on personal work goals.

Judge, Bono, Erez and Locke (2005; study 2) investigated the role of work goal self-concordance and work goal attainment on core self-evaluations, and job and life satisfaction, in a longitudinal survey. They found that workers who viewed themselves as worthy, efficacious, and in control of their lives (positive self-evaluations) tended to have more self-concordant work goals. In turn, these self-concordant work goals were associated with higher levels of work goal attainment and increased job satisfaction. Results also showed that having autonomous motives (see Figure 10) as opposed to more controlled motives as foundations for personal work goals is most associated with job and life satisfaction, and goal attainment.

In a similar vein, Greguras and Diefendorff (2010) investigated self-concordant work goals, in relation to proactive personality (a dispositional tendency to initiate change in a variety of situations) life satisfaction, and work outcomes. In this study, 165 workers from Singapore and their supervisors were surveyed at three time points. In accord with Judge et al.'s (2005) findings, those individuals who had

more proactive personalities were more likely to set themselves self-concordant personal work goals and to progress towards their goals. Having, and making progress towards self-concordant work goals led to higher levels of life satisfaction. Furthermore, having self-concordant work goals also had an impact on the employees' work attitudes as rated by their supervisors: they displayed more OCBs and performed better. To summarise, studies in the occupational field show that choosing work goals that are self-concordant, leads to positive effects in terms of employee well-being, work behaviours and attitudes.

3.5.4   Personal Work Goal Difficulty and Well-Being

One attribute of personal work goals that must be mentioned here is the level of difficulty of a goal. This goal characteristic is one of the most studied dimensions of work goals within the occupational literature producing rather stable results (Wiese, 2007). Difficult work goals rather than vague do-your-best work goals give rise to more goal progress and achievement (c.f. Locke & Latham, 2006; see section 2.1.1). As most studies on work goal difficulty stem from the genre of Goal Setting Theory, these tend to focus on externally set work goals.

One example of a study of self-set personal work goals and work goal difficulty is by Wiese and Freund (2005). Here work goal difficulty was the largest moderator variable between goal progress and occupational and affective well-being measures. No significant relationships were found between work goal attainment and negative affect, positive affect or job satisfaction when the personal work goals were considered easy, but attainment was negatively related to negative affect and positively associated with positive affect and job satisfaction when the personal work goals were rated as difficult. In short, striving for difficult goals can boost workers' performances and their positive reactions to successful goal progress (Wiese 2007).

3.6   Personal Work Goal Content and Well-Being

When investigating the content of employees' personal work goals occupational psychologists classically turn to content analysis, grouping the goals into work activity themes. For instance, in an early study, Roberson et al. (1989) coded the self-set personal work goals of 175 employees in terms of whether they were positive (e.g., keep, restore and do), or negative goals (e.g., get rid of, avoid, and prevent) and then in thematic clusters. Parallels between these positive and negatively poled work goals and the more recent classification of goals into approach and avoidance goals (Elliot and Harackiewicz, 1996; see section 2.1.1) are stark. Roberson et al.'s (1989) analysis yielded 23 positively themed (e.g. pay and benefits, working conditions, career advancement) and 18 negatively themed goal categories (e.g., work schedule, job withdrawal, negative feedback). In a subsequent study, Roberson (1990) investigated the positive or negative valence of employees' personal work

goals with respect to levels of job satisfaction. Employees with a high percentage of positively valenced personal work goals showed increased job satisfaction.

More recently, a content analysis of Finish managers' personal goals resulted in a category system covering seven content areas (Hyvönen, Feldt, Salemela-Aro, Kinnunen & Mäkikangas, 2009). The content areas were found to be: competence goals, progression goals, well-being goals, job change goals, job security goals, organisational goals, and financial goals. Further analysis showed that goals focusing on the success or performance of the organisation (e.g., *to increase productivity*) were linked with the lowest burnout rates and a high level of work engagement. By contrast, managers who strove for well-being goals (e.g., *learning to work without stressing*) and on job change goals (e.g. *to find a more interesting profession*) tended to have higher burnout scores and lower work engagement. These results indicate that the content of personal work goals has an impact on organisational health and that personal work goals focusing on the self rather than on the organisation may not promote organisational health benefits. This idea of focusing on the "right" thing may seem rather paternalistic, nevertheless, young managers who had work goals related to their present roles as managers showed the highest satisfaction levels with their jobs.

In a further study lead by Hyvönen (Hyvönen, Feldt, Tolvanen & Kinnunen, 2010), the content of personal work goals was investigated alongside organisational well-being and the organisational environment which was measured using the effort-reward-imbalance (ERI) model (Siegrist, 1996; Siegrist et al., 2004). The ERI model is an occupational motivation theory based on a social exchange theory, whereby employers put effort into their work in terms of job responsibilities and demands and expect some sort of reward in return (e.g. job security, praise, esteem). An imbalance between the effort and rewards at work is associated with strain and various negative psychological and physiological reactions (c.f. Tsutsumi & Kawakami 2004) such as psychological distress (Shimazu & de Jonge, 2009), poor mental health (Stansfeld, Bosma, Hemingway, & Marmot, 1998) and mortality due to heart attacks (Kivimäki et al., 2002). Hyöveron et al. (2010) found that managers with work goals related to the organisation rated their work environments as offering the highest rewards, and the lowest ERI. Managers who pursued work goals relating to well-being, job change or had no work goals, experienced higher ERI and thus a less favourable working environment. The content of the managers' personal work goals was also found to mediate the relationship between ERI and well-being outcomes, with lower work engagement and higher burnout scores found in managers with well-being, job change or no work goals and higher work engagement and lower burnout in managers with organisational goals. Again, these results point to the work environment as an important factor in the pursuit of personal work goals, and the content of our work goals as having an impact on how the environment has a bearing on our well-being at work.

3.7 Personal Work Goal Structure and Well-Being

The following section discusses the structure of work goal systems and how these influence well-being. I discuss the amount of work goals compared to other goals that individuals pursue, and the ways that these goals interact with each other in terms of conflict and facilitation within the work domain and across the work-life divide, and how these link to well-being.

3.7.1 Amount of Personal Work Goals and Well-Being

There may be a limit to the number of personal work goals an employee can pursue without jeopardising their well-being. In a study comprising two cross-sectional surveys of IT workers, personal goals were content analysed and then investigated in terms of their effects on well-being (Salmela-Aro & Nurmi, 2004). Results showed that those workers who had a higher percentage of work-related personal goals than health, hobbies or self-goals, tended to have negative well-being outcomes. They reported increased symptoms of burnout, had more diagnosed diseases and sick days from work, and lower work ability. Although workers with more work-related goals had the highest occupational status, this came at a cost to well-being.

Salmela-Aro, Näätan and Nurmi (2004) investigated workers suffering from burnout enrolled on an intervention programme that centred on personal goals. Over the intervention, the number of personal goals that the employees had relating to career and work decreased, as did negative goal related emotions and levels of burnout, whilst data collected from a control group showed no changes. For the sake of well-being, it seems wise to limit the number of work-related personal goals that one pursues, although no concrete suggestions have been made yet as to how many this should be.

3.7.2 Conflict and Facilitation in Personal Work Goals and Well-Being

The way in which multiple work goals affect with each other has been thematised in occupational psychology publications. Recently, Sun and Frese (2013), proposed a typology of the different relationships between multiple work goals (see Figure 16). This typology stems from goal setting theory (see section 2.1.1 for an overview) and therefore focuses on organisational rather than personal work goals, nevertheless, this is a useful conceptualisation that can also be applied to personal work goals.

Sun and Frese (2013) classify three types of multiple work goal relationships. Multiple separate goals are work goals that have no bearing on each other; each is strived for separately, with no reciprocal gains or conflicts, other than limited resources. Sequentially interdependent goals are work goals that reciprocate each other in a sequential way. For instance, the work goals "*finish my management training*" and "*make the move into management*" could be sequentially interdependent goals if management training were a prerequisite to management positions in the firm. Sun and Frese (2013)

only discuss the facilitative effect of sequentially interdependent goals, but hindrances could also emerge. For instance, if our individual on the management training does not progress well or fails the training, a sequential work goal hindrance would result. Lastly, reciprocally interdependent goals are goals where reciprocity and synergy effects emerge from the striving towards each goal. For instance, the goals "*to speak more confidently in meetings*" and "*gain respect from my colleagues*" could be reciprocal; speaking more confidently could lead to more respect from colleagues, which may make the individual even more confident speaking in meetings. Again, conflicting goals are not included in this typology but two goals could conflict in the same way. For instance "*reducing overtime*" and "*be seen as a hard worker*" may be conflicting work goals in a company where overtime is synonymous with hard working employees.
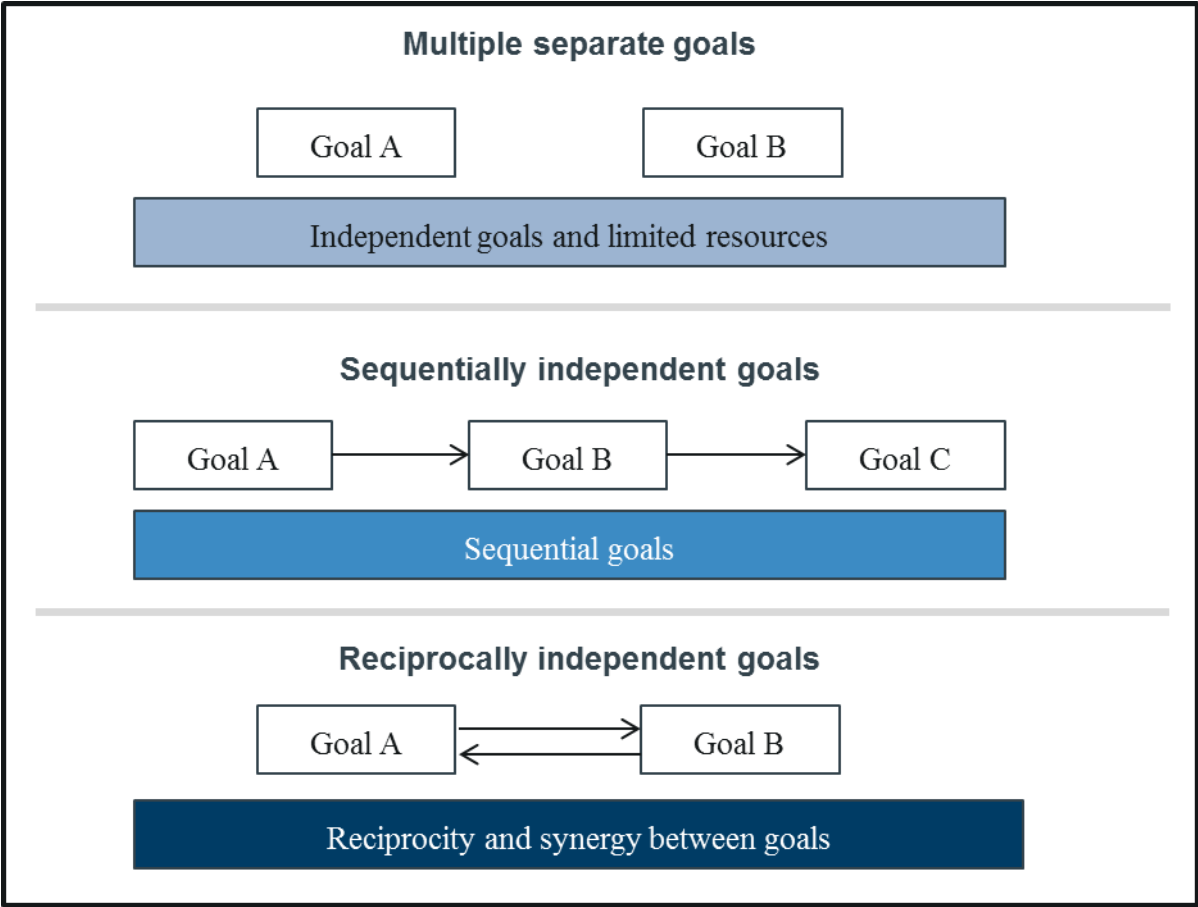
Figure 16. A typology of multiple goals (Sun & Frese, 2013; p. 178)

Conflicts between personal work goals can result in both lowered well-being and lowered productivity. Locke, Smith, Erez, Chah, and Schaffer (1994, Study 2) found that if professors felt conflicts between their teaching and research goals, this had negative sways on their research productivity (journal publications). Interestingly, conflict between research and teaching goals did not have an effect on teaching performance. Teaching performance was, however, significantly higher in professors with more teaching goals, and significantly lower for those professors with more research

goals and research strategies (strategies to aid progress on research goals). Locke et al. (1994) suggest that the conflicts could occur at a higher level in the goal system, in the professors' personal values, with those professors who value their teaching commitment to students conflicting with the remuneration policy of the university, which is focused on publishing. As experiencing conflict had repercussions for the professors' productivity and well-being, the authors suggest that separate track tenure programmes, focusing either on excellence in teaching or on publishing, may be the way forward for universities.

Pomaki et al. (2004) investigated a range of work goal processes, included goal conflicts in relation to burnout, depression, somatic complaints, and job satisfaction, in a large sample of health care workers. Results showed that conflicts between personal work goals predicted negative outcomes on all of the measures bar one—the subscale of personal accomplishment from the measure of burnout. Nevertheless, work goal conflict predicted overall burnout. Pomaki et al. (2004) noted that dysfunctional work goals processes such as work goal conflicts were more strongly associated with psychological distress whilst functional processes (goal efficacy, goal support, and goal-related positive emotions) more strongly associated with well-being. When adding work environment measures to the analysis (job demands-control-social support: c.f. Karasek, 1979; van der Doef, Maes, & Diekstra, 2000; see section 3.4.2) and perceived social support for the work goal, the effects of work goal conflicts were reduced. This indicates a close link between personal work goal conflicts and personal work goal social support, and the working conditions measured in the study (Pomaki et al., 2004).

It is very unlikely that individuals would set all of their work goals at the same time. People develop new work goals to fit new employment situations (e.g., a new job, a new qualification or a new supervisor) or to continue their occupational development whilst pre-existing work goals exist that may conflict or facilitate the new goal. Kehr (2003) investigated how such pre-existing goals impact upon newly forged work goals, and what bearing this has on well-being. Participants were 99 German managers from 62 firms on a training course, which involved setting new personal work goals relating to training transfer. Kehr (2003) found that continuing pre-existing goal conflicts are negatively associated with attainment of newly set goals over time. Contrary to other findings (e.g., Pomaki et al., 2003) conflicts between personal work goals per se was not a good predictor of SWB. Conflicts arising between newly formed work goals did link negatively to positive affect, whilst enduring goal conflicts did not. This may be a reflection of a phenomenon named the hedonistic treadmill (Brickman & Campbell, 1971), where individuals become used to a negative or positive situation with its effects on well-being lessening with time, eventually returning to a base level. Kehr (2003) calls for longitudinal research into the effective resolving of goal conflicts, especially in times of transition, as little research exists in this area to date.

3.7.3 Work Goal and the Work-Life Balance—Inter-Domain Conflicts and Facilitation

Our working lives do not happen in total isolation from the rest of our lives. Personal work goals may facilitate or conflict with personal goals in other domains and have ramifications for SWB. For instance, in an occupational health study, Karoly and Ruehlman (1996) found that conflicts between work goals and goals outside of work predicted levels of pain that managers feel. Interestingly, there were no links between pain and work-to-work goal conflicts. Karoly and Ruehlman (1996) put these differences down to the work environment, its clear structure aiding the resolution of tasks relating to the goal conflict.

A study of employed parents' daily work and family goal activities, found high workloads were linked to less progress on family goals indicating that a spill-over effect from work to home can be a reality for employed parents (Hoppmann & Klumb, 2012). Even parents with high workloads who utilised family goal strategies (selective primary, compensatory primary and selective secondary controls; c.f. Heckhausen, 1997; section 2.2.2.1) were not able to make up for the conflict situation and make progress on family goals. More positively, recent research from a large longitudinal study in America has found that when looking at simultaneous engagement in goal activity over various life domains (work, health, relationship with spouse and children) adults are able to manage and adapt their various goals successfully and in a synergistic way (Shane & Heckhausen, 2016). Striving for multiple personal goals simultaneously in differing life domains does bring with it daily stressors in the form of conflict and interference. Nevertheless, participants displayed a general aptitude to manage their personal goals in a way that brought a certain synergy to the goal set, for example engaging with a spouse increased the engagement with children. In times of excessive demand and stress in various domains, though, the positive synergy effect would likely lessen (Shane & Heckhausen, 2016).

A recent 20-day measurement burst study of multiple goals in different life domains (Knecht & Freund, 2016) found that having multiple goals in multiple domains is beneficial. However, individuals segregate their goals into specific domains and manage them well in that domain only. Subjective well-being and goal relations (lower conflict or higher facilitation among goals) were negatively affected by incongruities in the activity and the context. For example, if an individual were to work from home, their situation and activity would be disharmonious, leading to lower satisfaction levels. In addition, work goals were found to be strongly associated with the work activity only, with little spill-over effects to the family and leisure domains. This means that when relaxing or spending time with the family, individuals tend not to think about work goals, and vice versa (Knecht & Freund, 2016).

Of course, there are always going to be some conflicts between work and home life, but the picture is not as bleak as one would expect. Wiese and Salmela-Aro (2008) found that on average work-to-family goal facilitation is more prevalent than goal conflicts with facilitation increasing with age. This

indicates that employees are able to construct a functional personal goal system for themselves containing complementary goals, getting more successful at this over time. Wiese and Salmela-Aro found that goal conflict was associated with lower work satisfaction and lower work engagement, whilst facilitations between work and family goals had positive effects on job and partner satisfaction, and work engagement. This study is one of the few in personal work goal research to measure facilitation and conflict as two aspects of the goal system (see section 3.3.2 for a short discussion of the multidimensionality of goal conflict-facilitation).

A good balance between work and family goals is important for adolescents. Lee and Vondracek (2014) used a pattern approach to cluster participants into five groups, depending on the importance that they assigned their work and family goals and the strength and focus of their self-efficacy beliefs. Adolescents aged 14-15 whose work and family goals were balanced and whose self-efficacy beliefs complemented these goals were the most likely to have a job that they were happy with and be married or cohabiting at the age of 17-18 and 34-35. Some adolescents had one-sided goals focused on either work or family, which was reflected in their attainments in adulthood; those very focused on work were less likely to be married or co-habiting, and were not happier with their work outcomes than those with a family focus in their goals. Striving for a good balance of work to non-work goals seems to be the most adaptive approach for overall health and well-being.

3.8   Adolescents and Personal Work Goals

In this dissertation, I concern myself with the personal work goals of adolescents enrolled on a dual-system vocational training programme (see Discourse 1 in section 3.4.1). Most research done in the area of adolescents' personal work goals concentrates on the transition period between leaving school and starting a job and often focuses on socialisation into the new organisation rather than young people on formal training programmes. As a few of these studies are longitudinal and span some months into employment or vocational training, we can, however, glean some information regarding the personal work goals of employed adolescents.

3.8.1   Adolescents' Work Goals and a Meaningful Life

An interesting and relatively new approach to the personal work goals of adolescents is that a new developmental task is emerging in young people: to search for a sense of meaning in life (Mayseless & Keren, 2014). This is thought to be especially the case in the domains of love and work. Research has shown that young people seek out work, not just to satisfy the need for monitory gain in the present, but also as a foundation stone for their future careers and their professional identities (Masten, Obradovic & Burt, 2006).

Although the debates around leading a meaningful life are not new, research on developmental processes in adolescence is in its fledgling years when it comes to investigating eudemonic well-being,

searching for a meaningful life and self-fulfilment. In their theoretical paper, Mayseless and Keren (2014) call for research to investigate the work goals of young people in association to finding meaning in their work and to searching for a meaningful life. This reflects a eudemonic approach to investigating the personal work goals of young people whilst the studies which I present below, stemming from occupational and developmental psychology, take a more hedonistic approach to well-being.

3.8.2 Adolescents' Work Goals: Employment status, Organisational Socialisation and Transitions

Adolescents' personal work goals have been found to link to their employment status. A longitudinal study focused on how adolescents dealt with the transition between vocational school and work (Nurmi & Salmela-Aro, 2002). Adolescents who when they were at school, gave high importance to their work goals and thought that they could accomplish them, and reported progressing well towards their work goals were more likely to be in employment that matched their education 8 months and 18 months after graduating. Adolescents at these times who were not working (e.g., taking care of family, doing army service), unemployed, or in a job not commensurate to their academic level tended to reappraise their work goals, lowering the importance of them over time. Conversely, those who successfully transitioned into a job still assigned high importance to their work goals. These results concur with theories of developmental adaptation, where disengagement from futile goals is a legitimate strategy for positive development (c.f., J. Heckhausen 1999; Salmela-Aro, 2010). In a further study, the personal goals of Finish emerging adults were investigated using latent class analysis (Ranta, Dietrich & Salmela-Aro, 2014). The results showed that the main goals reported for these young people were in the domains of career and romantic relationships, with career concern profiles of participants being the most prevalent. Again, in this study, the young peoples' goals were predictors of their current life status; participants with a focus on career goals tending to be in employment.

Secondly, adolescents' personal work goals are associated with organisational socialisation. Stumpp (2006) investigated German adolescents' personal work goals whilst the participants were still school pupils and then over an eight-month socialisation period. Stumpp (2006) found those adolescents who progressed well towards their personal work goals had a smooth socialisation period characterised by increased satisfaction with life, higher job satisfaction and more organisational citizenship behaviours, compared to those whose goal progress was limited. Further, a key to successful socialisation was the adaptation of personal work goals (changes in commitment to the goal over time) to fit the constraints of the job situation (work-goal attainability). These results regarding work goal adaptation echo that of goal reappraisals in Nurmi and Salmela-Aro's (2002) study, and also offers sustenance to Maier and Brunstein's (2001) model where the interplay between goal commitment and attainability is considered vital for well-being.

Lastly, adolescents' personal work goals are associated with stress in the transition from school to work. Dietrich, Jokisaari and Nurmi (2012) studied a group of Finish school graduates over a period of two years from school to work. The participants' personal work goals frequently related to getting or changing a job, learning and personal development, and job security. Overall, more positive work goals appraisals were associated with less stress in three different domains; the economic situation, time pressures, and work stress. After making the transition to work, goal progress increased steadily but the work goals lost importance, possibly due to a shifting of attention to new goals after making the transition. Dietrich et al. (2012) witnessed adaptability and adjustments of work goals over time in young people who initially had high work and economic stress levels. At subsequent time points, the tendency was that these adolescents had formulated more attainable work goals that they considered highly important and had made more progress towards the new goals, having perhaps learned to be more realistic in their work goal choices. As with Stumpp's (2006) and Nurmi and Salmela-Aro's (2002) studies, this result supports developmental theories (e.g., Heckhausen et al., 2010; Nurmi, 2004; Salmela-Aro, 2009) regarding successful adaptation and matching aspirations to situational constraints.

We find then, that adolescents transitioning to work have an agenda: they bring personal work goals with them into the employment arena that they formulated during schooling These goals have an impact on their chances of getting a job, the way they experience their socialisation into the firm, and their well-being. An employment space that facilitates work goal attainment is advantageous for the young person. For those young people who either harbour unrealistic work goals or have an employment environment that does not promote their goal attainment, a reassessment of their work goals to adapt to their new situation, may optimise their well-being.

Personal goals are motivators in our everyday lives, providing us with meaning and structure. They help us to be the person we wish to be, by acting as beacons by which to direct our daily behaviours and efforts. Personal goals are idiosyncratic and can be made in any domain of life. In this chapter, I have outlined literature relating goal pursuit from three different psychological perspectives; motivational psychology, developmental psychology and occupational psychology. My focus has been on the links between personal goals and well-being especially in the period of adolescence and in the domain of work.

4 The Psychological Contract

4.1 Introduction

The working environment is made up of a number of different features, one of which is the employment relationship that exists between the employer and employee. Occupational psychologists use the psychological contract (PC) as an explanatory framework by which to describe employment relationships and to predict workers' well-being and work attitudes (De Cuyper, Rigotti, De Witte & Mohr, 2008; Shore & Tetrick, 1994a).

A relatively old concept in occupational psychology, the PC has its roots in employer-employee exchange research dating back to the late 50s (March & Simon, 1958), with Argyris (1960) coining the term 'psychological work contract' later. More recently, a seminal paper by Rousseau (1989) that reconceptualised the PC, rekindled the interest of the occupational psychology community and practitioners in the field. Since then, the idea of the PC has increased in popularity, and is now considered a useful concept for understanding relationships in the workplace (Conway, Guest & Trenberth, 2011).

The PC can be described as a representation of the terms set out in an exchange agreement between a worker and their employer that are not part of the written work contract. This constitutes an employee's perceived promises made to the employer and the promises that the employer made in return (Rousseau, 2005). Whilst older papers on the PC focus on perceived expectations of the exchange partner (e.g., Kotter, 1973; Levinson, Price, Munden & Solley, 1962), the modern view of PCs is that they are centred on beliefs about promises that have been exchanged (e.g., Conway, Guest & Trenberth, 2011; Morrison & Robinson, 1997; Rousseau, 1989; 1995). This more up to date conceptualisation brings with it more specificity and clarity to the PC framework as promises intrinsically indicate a type of contractual agreement, whilst expectations and obligations do not (Conway & Briner, 2005). Expectations and obligations would now only be considered part of an individual's PC if they were linked to a perceived promise. This focus on promises also sets the PC research aside from that of the concept of pre-employment expectations and met expectations, which pertain to a worker' beliefs about how a job will be. Such beliefs are traditionally formed from past experience, norms, and friends (Montes & Zweig, 2009). Employees' beliefs about their PCs are a direct response to promises made by the organisation to the employee (Rousseau & Tijoriwala, 1998).

As in many psychological concepts there is no one agreed upon definition of the PC, however, there is general agreement that an individual's PC represents a perceived exchange relationship that is promissory in nature and extra to the formal contract employees receive from the human relations department. A selection of PC definitions that are used in the current literature are presented in Table

3, for comparison purposes. Currently the most widely used definitions in the literature are those from Rousseau (1989; 1995), where the PC is a subjective representation of the reciprocal exchange between an employee and their organisation with is based on promises. I also use Rousseau's conceptualisation of the PC for the base of this research project.

Table 3. A Selection of Modern Definitions of the Psychological Contract

Definitions of the Psychological Contract	Author(s), Date and page number
An individual's belief regarding the terms and conditions of a reciprocal exchange agreement between the 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.	Rousseau (1989, p 123)
Individual beliefs, shaped by the organisation, regarding terms of an exchange agreement between the individual and their organisation.	Rousseau (1995, p. 9)
The Psychological Contract encompasses the actions employees believe are expected of them and what response they expect from the employer in return.	Rousseau and Greller (1994, p. 386)
Mutual promises, obligations, and expectations, such as job security or support for employability, which exist between employee and employer, and which are not part of the legal employment contract.	Raeder, Wittekind, Inauen, and Grote (2009, p. 177)
The set of reciprocal obligations that arise from explicit and implicit promises exchanged between the employee and the employer that serve to create an important relational bond.	Montes and Zweig (2009, p. 1243)
These unwritten, implicit contracts refer to employees' expectations regarding reciprocal exchange agreements with their employers that arise from the employees' interaction with the organisation	Reimann & Guzy (2017, p. 2)

In this chapter I will introduce and review the literature relating to the psychological contract by looking at what, how and who makes up the psychological contract. I will then examine the content of PC promises and discuss PCs in terms of well-being. A main strand of PC research is concerned with what happens when a psychological contract item is breached and I review this theme in depth. I then turn to look at the state of the PCs. At the end of the chapter I turn to look at vocational trainees, job starters and those in the socialization period at work and lastly review how the PC develops at work.

4.2 Psychological Contract Promises- The '*How*'

In essence a psychological contract is a collection of promises which encompass what an employee's commitments are to the firm, and what the firm's commitments are to the employee. These promises are the foundations of the PC deals. Each promise is different in a variety of ways- they are specific to that firm and employee, and in the time and situation in which it was made. A main differentiation that

is made in the literature to disseminate PC promises is how solidly or firmly a promise was made. What follows is an account of this differentiation.

Promises within the PC are assurances that the contract party will carry out a future course of action, i.e., providing some benefit, behaviour, or commitment to the other (Rubin & Brown, 1975). The perceived promises that constitute PCs can be explicit or implicit. Explicit promises are written or verbal agreements that are made between the employee and either the employer or a member of staff acting on behalf of the organisation, e.g. a recruiter (Conway & Brinner, 2005). If, for instance, a manager were to promise an employee a bonus if they managed to reach a particular sales target, that would constitute an explicit promise. This verbal promise is clear and explicit. Implicit promises, however, are rather more organic. They can be inferred from situations which indicate a promissory intent (Montes & Zweig, 2009). These promises stem from a certain amount of interpretation on the part of the employee who takes cues from patterns of previous exchanges with the organisation, from the way others in the organisation are treated and their experiences, and through the organisational norms that prevail, such as how fair the company is, or how generous they tend to be. Research has shown that implicit promises can come from actions such as training, and praise (e.g., Rousseau & Greller, 1994; Shore & Tetrick, 1994a). If, for instance, an employer allowed an individual a day free, in response to a large amount of overtime, the individual may perceive an implicit promise that if they do a lot more overtime, they would get another day off.

Implicit promises play a large role in shaping the PC. Continued interactions between employee and employer shape and form the PC as the two parties sculpt an implicit PC through observations of each other's behaviours and reactions, as well as through direct contact with each other. This implicit PC will structure the parties' future interactions and relationship (Rousseau, 1990). The implicit nature of the PC raises questions regarding the extent to which a promise needs to be implicit to be considered part of the PC (Conway & Brinner, 2009). Guest (1998) for instance, holds that PCs are made of mostly implicit promises making them particularly subjective in nature and contracts that are explicit are not usefully conceptualised as being psychological. Rousseau (1995) on the other hand, believes that PCs are made of implicit and explicit promises and that even the explicit terms are open to interpretation and therefore, by nature, can be regarded as being psychological. For this research I take Rousseau's view, that both implicit and explicit promises are features of the PC. My stance is that any verbal, written, or implicit promises that are not included in the formal working contract belong to the psychological contract.

Perceived promises then, are the building blocks of an employee's PC, but note here the word *perceived.* Unlike a formal work contract PCs exist only "*in the eye of the beholder*" (Rousseau & McLean Parks 1993, p. 18) constituting what the employee believes both parties have agreed upon in terms of promises. In the case of implicit promises especially, the way PCs terms are created can mean

that an employee could interpret a promise where the employer may say that none has actually been made, or that the terms of the promise are understood differently to what was intended by the organisational party (Shore & Tetrick, 1994a). Whether the employer agrees, or not, is secondary according to Rousseau (1990). A PC term can exist even if there is no actual agreement, only a subjective agreement between the parties. Mutuality between the two parties in respect to the individual promises is not a prerequisite to a PC. PCs differ from each other in their objectivity, with some having many subjective promissory agreements within them that are not mutuality understood in the same way by the PC parties, and others being more objective with both parties having a common understanding of the promises within the contract, which would also be understood in the same way by a third party, external to the contract (Conway & Briner, 2009). The idea of mutuality between the contract's parties is touched upon in the next section when I discuss the PC as a social exchange.

4.2.1   Psychological Contract as a Social Exchange Relationship

Psychological contracts are a product of an exchange relationship between the employee and their psychological contractual partner, PC theory often explains the mechanisms behind the contracts by referring to Social Exchange Theory (Blau, 1964), with a particular focus on the norm of reciprocity (Gouldner, 1960). Blau states that, "*All contracts among men rest on the schema of giving and returning the equivalence*" (1964, p. 1), and PCs are no exception. Social Exchange Theory describes social relationships as being based on exchanges of resources. These resources can be social (trust, love, resect) or economic (money, goods) in nature. The theory posits that individuals enter relationships with those who can provide them with resources, be it social or economic, and that this relationship may well continue if the individual can also offer some kind of resource in return (Cropanzano & Mitchell, 2005).

According to the social norm of reciprocity, individuals feel strongly obligated to reciprocate when a resource has been gifted (Gouldner, 1960), and will respond by offering the relationship partner a resource, probably of a similar value. Within a society the norm of reciprocity is said to lead to a complicated web of indebtedness between members, (Ridley, 1997) who are linked together with feelings of obligation to reciprocate resources. So strong are people's feelings of reciprocal obligation that experiments have shown the norm comes into effect, even when the original resource offered was unwanted (e.g., Regan, 1971, Paese & Gilin, 2000). Interestingly, the norm of reciprocity is even utilised cleverly as a sales tool (Edlund, Sagarin & Johnson, 2007) with car sale-people often offering a free coffee and donut whilst discussing a car's features, or a fashion boutique offering free champagne to its customers, as this forces feelings of indebtedness onto the customers, who are then more likely to buy the product on offer. These feelings of indebtedness in the face of a gift are increased in those of us who have a strong belief in a just world. This was demonstrated nicely in an experimental study where after being gifted a bottle of water by an experimental confederate,

participants with a strong belief in a just world bought more raffle tickets when solicited by the confederate than those with a weaker belief that the world is a just and fair place, where people who have good things happen to them are deserving of this reward (Edlund et al., 2007).

As the PC hinges around exchanges, one resource for another, the responses of one party are conditional on the actions of the other (Conway & Brinner, 2005). Returning to my example of an employer explicitly promising a pay rise if an employee reaches a particular sales target, the condition here is that the sales target is reached. If the sales target is not reached, then no pay rise can be expected. If the sales target is reached, and the pay rise is paid, this opens the field for a further promise to be made. When a series of such exchanges becomes a pattern of behaviour for the two parties, a PC is formed (Conway & Brinner, 2005). It is the feelings of being indebted to the other party after a resource has been given, that keeps the PC evolving, with new promises being made and resources being exchanged.

Conway and Brinner (2005) summarise an exchange within a PC in four stages (see Figure 17). They give the example of an organisation (employer) attempting to make the PC less about the exchange of money for work (transitional), and more about mutual trust, and commitment (relational) from both PC parties (see Section 4.4.1 for a description of how PCs have been categorised). This exchange would start with a promise from the employer to trust and offer more commitment to the employee and the employer would then act on this promise. According to the norm of reciprocity, if possible people will try to pay back a resource in kind with a similar resource (Gouldner, 1960), so the employer's action would probably lead to the employee promising to trust and commit more to the employer, and this employee behaviour would follow. This behaviour on the part of the employee would then loop back to the employer, influencing further promises and shaping the future PC (Conway & Brinner, 2005). Similar to the previous example of the car-salesperson and their donuts, this chain of events illustrates that by using the norm of reciprocity, the PC could theoretically be used as a tool by employers in order to elicit desired behaviours from their staff members and to change the content terms of a PC. Whether this is a possibility or not, remains a matter of speculation, as no studies have investigated such active management of the PC.
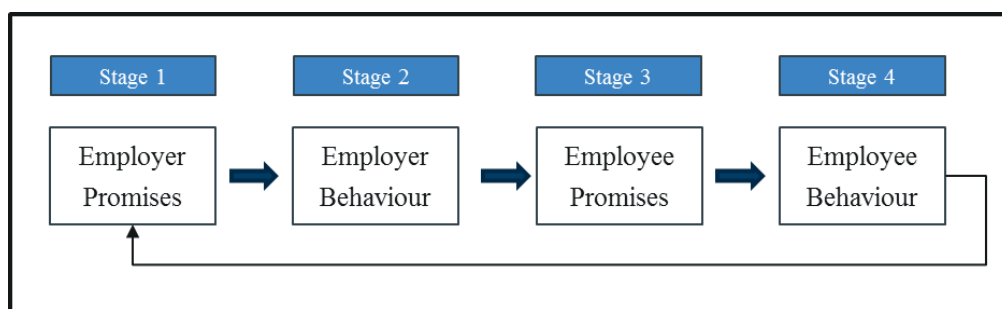
Figure 17. Promises and behaviours in a PC exchange (Conway & Brinner, 2005, p.57)

Although Conway and Brinner's (2005) four stage exchange may fit to some exchanges, there are other exchange constellations that are possible which they do not discuss. Firstly, if the employer can initiate promises and actions, then surely an employee could also do so, in an attempt to oblige the employer to change their side of the contract deal (see Figure 18, scenario A). Secondly, in some formal situations, such as in a job interview or appraisal, it seems likely that if an employer explicitly promises an employee a resource, that the employee may reply immediately to the situation with a reciprocal promise. In such a case the employee and employer behaviours that follow may be simultaneous (Figure 18, scenario B). Alternatively, the employee may wait to see whether the employer delivers on their promise before investing time and energy into fulfilling their side of the deal (Figure 18, scenario C). In all of these scenarios the results of the exchange would feed back to influence the making of new promises and extending the PC further in future.
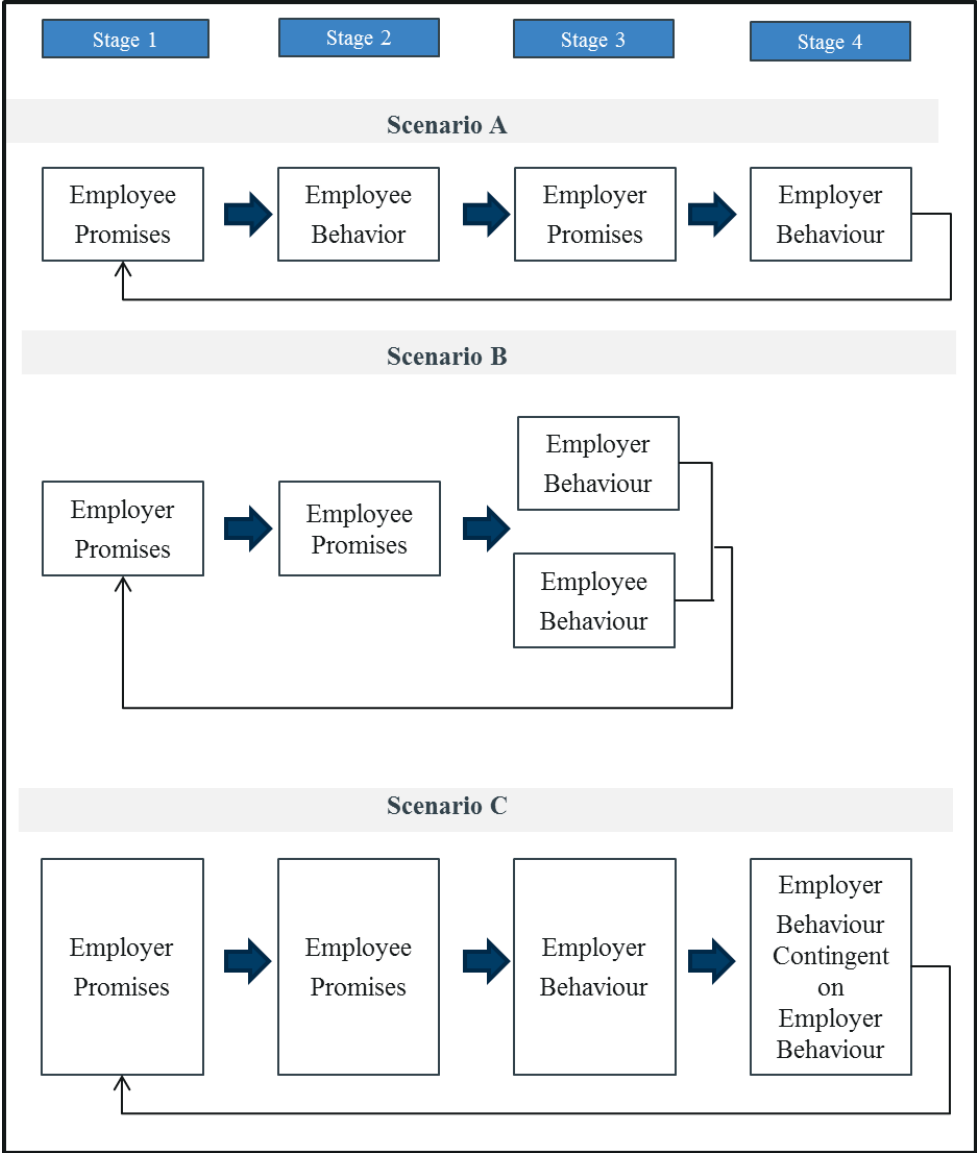
Figure 18. Employer and employee promises and behaviour in three PC exchange scenarios (Extension of Conway and Brinner, 2005, p.57)

4.3   Psychological Contract Parties: The '*Who*'.

The psychological contract is an exchange between two parties, but who exactly are these parties? At first glance this is a seemingly simple question; however, looking closely at the literature there is a lack of agreement as to who the actors in the employment relationship actually are. One side of the dyad seems clear: the employee. The PC is a set of beliefs held at the individual level by an employee relating to the obligations within the employment relationship. As it exists at the individual level a PC can only be held by a single individual employee, not by a team, or group of employees (Conway & Briner, 2005). Indeed, two employees entering the same job at the same time will likely hold very different PCs to each other having been promised differing deals and having interpreted different promises from the interactions they have been party to or witnessed (Rousseau, 1990). Even with the term *employee* questions are raised, with a few research articles studying the PCs of non-traditional workers such as contingency and agency workers (Millward & Brewerton, 1990; Mclean-Parks, Kidder & Gallagher, 1998) all working in conjunction with organisations. Nevertheless, the individual worker who is party to the contract, even in non-traditional arrangements, is clear.

The other side of the PC dyad is not so clearly defined, with research using various terms such as employer (De Vos, Buyens & Schalk, 2003; Dabos & Rousseau, 2004) manager (Coyle-Shapiro & Kessler, 2000), organisation (Cassar & Briner, 2011; Bal, Chiaburu & Diaz, 2011; Rousseau, 1989), foreman (Argyris, 1960) and agents of the organisation (Guest, 1998) to refer to the PC partner. In a well-cited critical paper Guest (1998) states that the PC "*is concerned with the interaction between one specific and another nebulous party*" (p. 650). This critique is not unjustified, when we turn to the PC literature and find conflicting definitions of the other party to the contract, such as these by Rousseau: "*The organisation, as the other party in the relationship*" (Rousseau, 1989, p. 126), compared to, "*[...] obligations between that person and another party such as an employer*" (Rousseau and Tijoriwala, 1998, p. 679). Although some authors see the conceptualisation of the organisation as the partner to the PC as unproblematic in its operationalisation within empirical studies (e.g., Coyle-Shapiro & Kessler, 2000) others disagree, warning against an inappropriate personification of the organisation (Kotter 1973; Guest, 1998). Indeed, anthropomorphising an organisation as a PC partner would imply that an organisation itself could make explicit and implicit promises to an employee. This is clearly not the case, with agents of the organisation (e.g. managers, HR representatives) being the ones making the promises.

In some organisations (especially those with a steep hierarchy) an employee may have PC promises being made by a number of individual agents from top management to team leaders, perhaps even conveying differing obligations expected of the worker, and having differing resources and means to fulfil their promises (Guest, 1998; Herriot, Manning & Kidd, 1997). The employee would need to amalgamate these promises into their psychological contract thus obliging them to cope with any

conflicting or inconsistent promises (Guest, 1998). Even during a typical job interview in the recruitment phase where the PC is thought to come into fruition (Sutton & Griffin, 2004), there are likely to be at least three representatives of the organisation present all inputting and starting to shape the new PC. The conceptualisation of the other party to the PC being 'the organisation' may therefore be a rather succinct way for both researchers and employers to summarise the various relationships into one contract partner. However, this may be a rather simplistic way of regarding the PC, as research indicates that individuals differ in their views of who their PC partner is, with some employees viewing their immediate supervisor as their partner, whilst others see higher- or top-management, or the firm itself as their PC partner (Rousseau, 1995; 1998).

It may even be the case that a person holds more than one psychological contract which they have to juggle, as sometimes promises are made by people in different locations. This could be the case with ex-pats being sent by head office to work in a different location where they have a second, perhaps conflicting PC, or consultants working for a consulting firm but being in situ in a host firm with whom they also would have a PC (Perera, Chew, & Nielsen, 2016). Generally though, researchers can safely assume that employees do view the organisation as a single entity and that the organisation as such is the counter-partner to their PC (Conway & Briner, 2005). Nevertheless, this approach should be used with caution when conducting research.

4.4 Psychological Contract Content: the '*What*'

In the same way that a legal contract consists of many terms, conditions and paragraphs, the PC is also a composite construct. The PC is not to be confused by a single promissory term; it refers to the entire set of promises and agreements that have been exchanged (subjectively or objectively) between the employee and the organisation (Freese & Schalk, 2008). A traditional work contract would cover a limited set of terms such as the amount of hours to be worked, place of work, pay, holiday entitlements and job title, whilst a PC would cover more idiosyncratic terms that were specific to the individual at that specific point in time. It is important to note at this point, that the PC content does not refer to what the organisation actually delivers to its staff, or what the employee actually delivers the organisation, but the content of the perceived promises are that make up the PC. Whether these are fulfilled or not, is another matter and is discussed in Section 4.6.

Theoretically the PC covers the entire set of promises made between the contract partners and as these are different for each individual worker, the scope of possible content for PCs is expensive. It is therefore surprising to see that very few studies have been carried out focusing on the content of workers' PCs. More often than not, this tropic is glossed over in a cursory way as researchers focus their attentions on the breach or fulfilment of the PCs rather than the actual content of the promises and obligations. As a consequence, much PC research focuses on a set of rather generic PC content terms that are generally believed to be relevant to most employees. A critique of this approach is that

the focus on a core set of psychological contract terms has led to a total disregard to other and the possible range of exchange terms that are important in daily working life (Conway & Briner, 2005). It is also rarely clear from the research papers how the investigators actually decided on the PC content items that they ended up investigating (e.g., Deery, Iverson & Walsh, 2006; de Vos, Buyens & Schalk, 2003; Sia, Bhardwaj & Sahoo, 2013). This is problematic, as it indicates a rather arbitrary selection process not based on any hard theoretical grounding. The few studies that report how they generated the PC content items to investigate did so through interviews with managers and HR specialist (Rousseau, 1990), open ended survey questions (Rousseau, 1990; Robinson & Rousseau, 1994), interviews with employees and representatives of the employer (Borrill & Kidd, 1994) and critical incidence technique (Herriot, Manning & Kidd, 1997).

Which PC contents are commonly identified? On the one side of the agreement, typical content of obligations made to the employee by the organisation include fair treatment, job security, training, recognition, opportunities for advancement and leadership, a collegial work environment, and an acceptable work-life balance (de Vos, Buyens & Schalk, 2003; Kickul, Lester & Finkl, 2002; Tekleab & Taylor, 2003; Porter, Pearce, Tripoli & Lewis 1998). On the other side, the content of PC promises made by the employee to the organisation includes hard work, flexibility, loyalty, personal investment in the company, a good attitude, honesty and appropriate behaviour (Janssens, Sels & Van Den Brande, 2003; Herriot, et al., 1997). Although the PC represents a reciprocal agreement between an employee and their organisation, very few studies investigate the employee's promised obligations to their organisations (for exceptions see: de Vos et al., 2003; Herriot et al., 1997; Sia, et al., 2013) This has been flagged as an oversight of the theoretical basis of the PC (Conway & Briner, 2005) but little has changed in the research since this criticism was made, with the focus still on the obligations that the organisation has made towards the employee.

In one well cited study of PC content, Herriot and colleagues (1997) studied UK employees' and managers' work relationships using a critical incident methodology. The researchers were concerned that the subtle and implicit nature of PC content would not be measured accurately through a conventional questionnaire technique and so interviewed the respondents and asked them to relay any incidences where they felt that an employee or employer had fallen short of or exceeded what was normally expected of them ,in the way they treated the other party. Responses were elicited reflecting both employer and employee obligations which were then content analysed into themes which resulted in seven employee obligations and twelve employer obligations. The number and percentage of incidences mentioned were also tallied and used as a proxy indicator for salience. The content areas are presented in Table 4 in descending order of the percentage of incidents mentioned by employees.

In general, employees and employers were found to focus on differing PC contents with employees pinpointing hard factors such as pay and environment, and the employers tending to focus on softer

factors such as fairness and humanity (Herriot et al., 1997). Hours, work and honesty were the three PC content areas that were most cited by both employee and employer groups with no significant differences between them. The results were interpreted as indicating a mismatch between what employees want to receive from their organisations, (namely fair pay for fair work and a safe working environment), and what managers acting on behalf of the organisation focus on providing, (humanity, benefits and recognition).

Table 4. Content Themes of Employee's and Organisation's Psychological Contracts

		% of incidents	
PC Content Themes	Description	Emp' group	Org' group
Organisational obligations (managers)			
Environment	Provision of a safe and congenial work environment	15.0	8.71
Pay	Equitable with respect to market values consistency within organisation	11.9	6.27
Fairness	Fair HR procedures	10.8	12.9
Benefits	Fairness and consistency in the benefit systems	9.62	16.4
Security	Provide what job security they can	9.62	6-27
Training	Providing induction and training	9.62	8.36
Humanity	Being socially responsible and supportive towards employee	7.31	14.3
Needs	Time off to meet personal needs	5.77	4.88
Justice	Fairness and consistency in applying rules and disciplinary procedures	5.38	4.18
Consult	Consulting and communicating with employees on matters which affect them	5.38	4.88
Discretion	Minimal interference with employees in terms of how they do their job	5.38	2.09
Recognition	Recognition of or reward for special contribution or long service	4.23	10.8
Employee Obligations			
Hours	Work the hours contracted	32.1	28.1
Work	Do a good job in terms of quality and quantity	19.4	22.3
Honesty	Dealing with clients and the organisation honestly	15.2	16.9
Self-present	Dressing and behaving correctly	10.5	5.75
Flexibility	Going beyond one's own job description, especially in emergency	10.1	11.6
Property	Treating the organisation's property carefully	8.44	3.72
Loyalty	Staying with the organisation, guarding its reputation and putting its interests first	4.22	11.6

Notes: Adapted from Herriot, Manning & Kidd, (1997), Table 3 and Table 4, p. 156. Employees n=184; Managers n=184; Emp' Group= Employee Group; Org Group= Organisation Group.

4.4.1 Categorisations of Psychological Contracts

As mentioned earlier, the breadth of the contents of a PC can potentially be enormous, with each idiosyncratic PC term promised implicitly or explicitly being included in the deal. Specific PC promises may also only be relevant to a particular set of employees (e.g., the promise of language training for expats, c.f., Guzzo, Noonan & Elron, 1994), those in particular employment contracts (e.g., the promises of a careful match to a client company in temporary workers; c.f., O'Leary-Kelly, Henderson, Anand, & Ashforth, 2014), or those in specific industries (e.g., the promise of thorough supervision for young scientists in academia; c.f., Lam & de Campos, 2014). In order to generalise the research PCs have been categorised on their underlying dimensions of their contents rather than on the content of the terms (see Table 5 for an outline of the various PC categorisation systems). I will outline these category systems below, focusing on the two most popular categorisations which dominate the literature: Rousseau's (1990) transitional-relational conceptualisation, and Shore and Barksdale's (1998) classification based on the balance of the PC.

Table 5. Categorisations of Psychological Contract Content

PC Content Classification	Author and Date
Transactional / Relational	Rousseau (1990; 1995); Robinson & Rousseau (1994)
Individualised / Standardised	Shore & Tetrick (1994a)
Mutual investment / Quasi-spot / employer under investment/ Employer over-investment	Tsui, Pearce, Porter & Tripoli (1997)
Employee over- obligation / Employee under- obligation / Balanced high obligation / Balanced low obligation	Shore & Barksdale (1998)
Transactional / Relational / Training Obligations	Coyle-Shapiro & Kessler (2000)
Transactional / Relational / Balanced / (Transitional)	Rousseau (2000); Hui, Lee, & Rousseau (2004)
Instrumental / weak / loyal / unattached / investing / strong	Janssens et al. (2003)
Mutual high obligations / employee over-obligations / employee under-obligation / mutual low-obligations	De Cuyper, Rigotti, De Witte & Mohr (2008)

4.4.1.1 Rousseau and the Relational-Transitional Continuum

Since its conception, Denise Rousseau's (1990, 1995) feature orientated distinction between *relational* and *transactional* psychological contracts has arguably been the most used framework to distinguish PCs from each other. Rousseau adapted the continuum from relational to transactional contracts from

legal theorist Macneil (1985). In Rousseau's typology, the two ends of the continuum are differentiated by two features; the time frame (duration) and how specified the performance-reward contingencies are (Rousseau, 2000). Transactional psychological contracts are short-term or temporary and are purely focused on an economical exchange of contingencies. These PCs reflect very specific, narrow duties on both the employer and employee sides, and are typified by low employee involvement in the firm. Transactional PCs are very narrow, with the promises concentrating on the monetary and performance based aspects of the deal. Relational PCs, on the other hand, are typified by their open-ended duration, where the employee is expected (and expects) to stay in their job for the long-term. Relational PCs are based on more than a limited economic exchange with the emphasis here on forging good working relationships. Employees display trust and loyalty towards the company whilst employers repay these obligations by investing into the well-being of the employee. It is generally agreed that all PCs will focus on the monetary side of the exchange relationship, in other words, all PCs will have a strong transactional base, but PCs will differ in the extent to which they have a relational component to them (De Cuyper, et al., 2008).

This continuum of transactional to relational contracts has the advantage of being a succinct way of categorising PCs, however the reliance on only two dimensions (time frame and specificity) has been criticised for omitting other important dimensions such as scope, stability and focus (Janssens, et al., 2003). In addition, there is some confusion over particular features of the PC, such as training, which is sometimes discussed in Rousseau's work as being on the transactional end of the continuum alongside pay for good performance (Rousseau, 1990; Robinson & Rousseau, 1994), whilst at other times is clustered within the relational aspects of the PC such as job security (Robinson, Kraatz, & Rousseau, 1994). This issue of training being poorly defined in terms of relational or transactional PCs is obviously a pertinent one in the case of vocational trainees. For the trainees it is likely that agreements and obligations relating to in-house training are vital parts of these young peoples' PCs. Inconsistencies in the literature relating to training indicates that this element has perhaps been treated in a rather cursory way pointing to a need to investigate this further.

One further major criticism of the relational-transactional classification is that because of the number of terms a personal has to deal with in their PCs, it is unlikely that all of these items are tidily applicable to only relational or transactional exchanges. More probable is a mix of relational for transitional terms or vice versa, for example, an employer promising and delivering a secure work position (relational) in exchange for an employee working as hard as they can for the firm (transactional). The exchange agreements within a single PC may not match in terms of being relational or transactional, thus blurring the lines suggested in such a classification.

Despite the criticisms, the relational-transactional divide is the most popular classification of PCs to date, and because of this interest, extensions to the dichotomy are also in circulation. Although

typically overlooked in the empirical papers, Rousseau has extended her classification further than the transactional-relational continuum, to include a *balanced* PC and a *transitional* state (Rousseau, 2000). These are also both based on the same two features of time frame and specificity of the performance-reward contingencies. Balanced PCs are of an open-ended time-frame and are typified by a high investment from both parties in the continued development of the firm and the employee. There is a dynamic aspect to these PCs with the employee contributing flexibility, in order to help the firm stay competitive in the market, and the organisation responding with internal and external career development opportunities for the employer. The final classification in Rousseau's (2000) typology is a transitional state. Rather confusingly Rousseau describes this not as a PC type at all, but as a "[…] *cognitive state reflecting the consequences of organisational change and transitions that are at odds with a previously established employment arrangement*" (p. 4, 2000). This state is exemplified through mistrust between the employer and employee, uncertainty in terms of obligations that are owed the firm, and erosion, where the employee expects a continued decrease in their benefits and quality of working life offered by the organisation. See Figure 19 for an overview of the PC tapes according to Rousseau (2000).
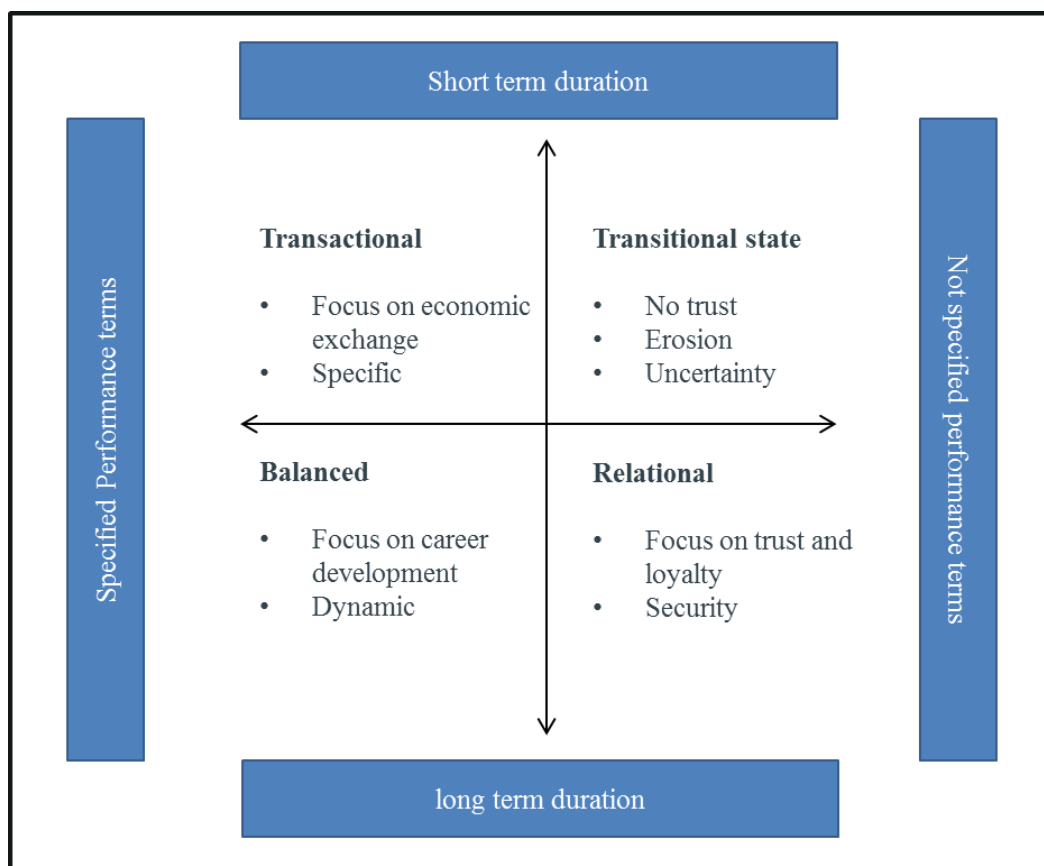
Figure 19. Types of Psychological Contracts and their Main Features. Adapted from Rousseau (2000, Figure 1, p. 3)

There is empirical backing for the division of PCs into the three types of relational, transactional and balanced (transitional states tend not to be a focus in the literature base). Firstly, Rousseau (2000) tested a PC measure (the PCI) on an American and Singaporean sample and found evidence for a three factor solution. Interestingly the balanced contracts tended to be clustered in the Singaporean sample, indicating that cultural differences also influence PC formation. The generalisability of the three PC forms was also confirmed by Hui, Lee and Rousseau (2004), in a sample of Chinese MBA students who worked for a large steel firm. In a further study, Dabos and Rousseau (2004) found that in a sample of university staff in Latin-America there was evidence of the three contract types, in accordance with previous findings.

In a larger scale study of 6,953 employees and 703 managers from a British local authority, Coyle-Shapiro and Kessler (2000) found that a three factor solution fitted the PC obligations of the sample the best. However, alongside transactional and relational obligations the third type was centred on promises relating to staff training. This type of PC was named "training obligations" and covered features such as support when wanting to learn new skills, the necessary training for the job, and up to date training. Coyle-Shapiro and Kessler (2000) point out that from their research, training seems not to be transitional or relational, but is a separate type of obligation within PCs. This finding goes some way in explaining the conflicting approaches to training in the work by Rousseau and her colleagues as discussed earlier. To my knowledge, there are no studies to date which confirm these findings.

4.4.1.2 Categorising Balance in the Psychological Contract

Moving away from Rousseau and her transactional-relational conceptualisation of PCs, an alternative way of categorising the employment relationships is to focus on the balance of the obligations exchanged within PCs. To recap, a PC describes the perceived terms of an exchange relationship between two parties, an employer (or organisation) and an employee from the perspective of the employee. As discussed in Section 4.2.1, the norm of reciprocity, (Gouldner, 1960) posits that if entering into an exchange not only will one expect to receive a resource of similar value in return but also of a similar type. This idea of fairness and balance in the exchange is a key feature of Shore and Barksdale's (1998) PC typology in their well-cited paper. This categorisation splits PCs into four types based on how balanced the exchange is between the two parties (balanced or skewed), and the extent to which the parties are obligated within the exchange (high or low obligations). This framework results in four distinct PC types: employee over- obligation, employee under- obligation, balanced high obligation, and balanced low obligation (see Figure 20).

In mutual high obligation PCs the employee perceives that they owe the employer a lot, in terms of the scope and commitment levels of the obligations, and in turn, that the employer is strongly committed to owe them a lot in return. This is a high investment PC for both parties to the contract reflecting a strong social exchange. With mutual low obligation PCs the employee perceives a very limited scope

of weak obligations which is also emulated in the employer's side of the deal. This is a weak social relationship typified by limited effort from both parties. Both of these PC types are balanced in that the employee obligations are matched by the employer and are thought to be typical forms of PCs (Shore & Barksdale, 1998).
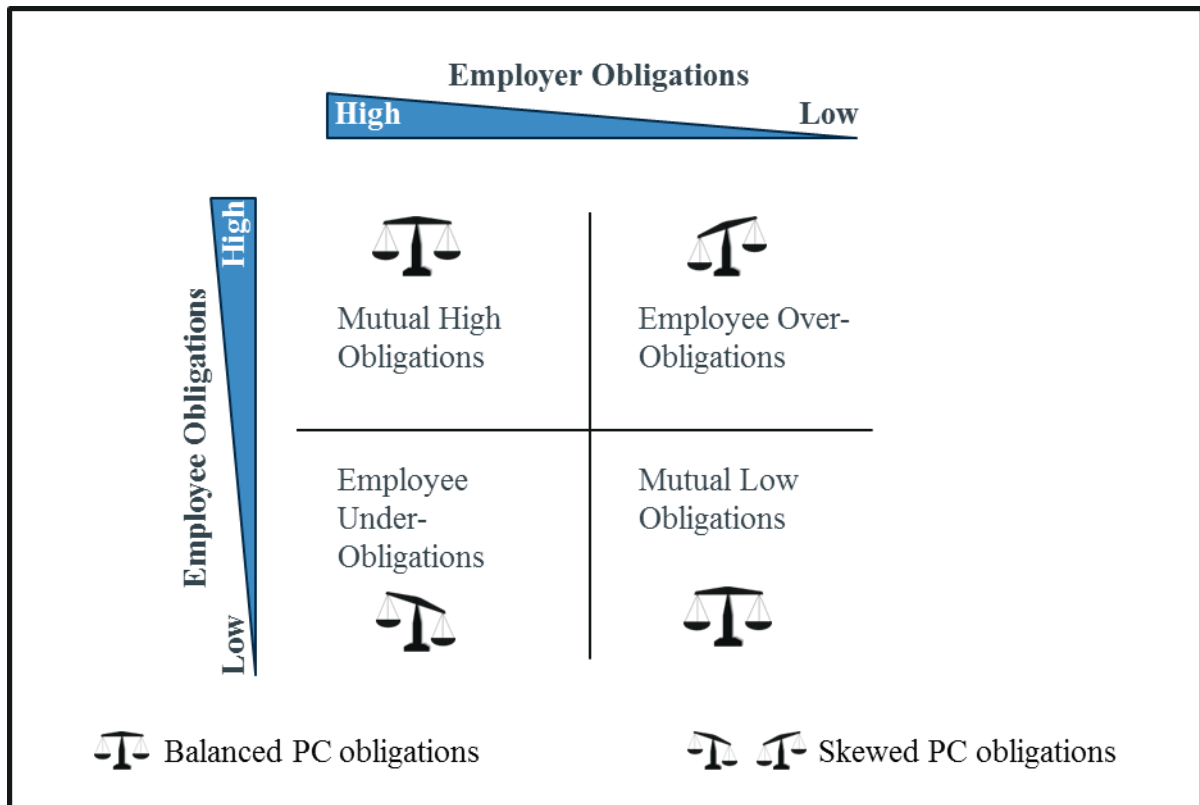
Figure 20. Four Types of Psychological Contract Exchange Relationships. Adapted from Shore and Barksdale, (1998, p. 734)

In Shore and Barksdale's (1998) typology there are two types of employment relationship that are not balanced, where the employee is either over- or under-obligated in relation to the employer. In employee under-obligation the employee has few low obligations whilst the employer is perceived to be highly obligated to provide more to the employee. This relationship may occur when an employee believes they have previously fulfilled their obligations, and the employer has not. The last exchange relationship type is the employee over-obligation, where an employee perceives that they owe the employer many high obligations, whilst being owed very little in return. Such a PC may occur if the employer has treated the employee very well in the past, and the employee is currently happy to reciprocate in an attempt to redress the balance.

Shaw and Barksdale's (1998) empirical study generally confirmed the presence of the four types of exchange relationship proposed. In their sample of 327 part time MBA students, the balanced PCs were the most prevalent, with approximately 45% of the respondents having a mutual high obligation

PC and 36% having a mutual low obligation relationship. Imbalance was relatively rare, with only approximately 12% of the sample reporting being over-obligated in the exchange relationship, and 3% being under-obligated. The remainder of the sample ($n= 12$) were not categorised into the four types.

Questions arise with this typology as to whether the construct is simply an alternative way of describing PC breaches, with employee over-and under obligation reflecting violations and breaches in the PCs from one party or the other and mutual low obligations a breach from both sides (see Section 4.6 for a discussion on PC breach). In my view, though, there is a theoretical difference between a set of unequal promises being exchanged from the outset or developing over time, and a set of obligations that has been promised not being delivered. Shore and Barksdale's PC types can also be criticised because of its similarities to equity theory (Adams, 1965) perhaps making the categorisation redundant. Equity theory has its focus on an individual's perception of fairness in an employment deal, with an equitable relationship being one where the employee inputs and outputs parallel the inputs and outputs of the employer. If there is an imbalance or inequitable deal then the employee is likely to take steps to redress the balance of the relationship, for instance, by increasing or reducing their input which is also postulated in Shore and Barksdale's (1998) paper.

In terms of balance within the employment relationship, as second, less well-known study produced very similar results to that of Shore and Barksdale (1998) offering support to the notion that balance is an important feature of exchange relationships (Tsui, et al., 1997). These researches state that their investigation does not test the psychological contract per se, as they focused only on the employer side of the deal, rather than also including employee perceptions in the analysis. Nevertheless, the results are consistent with Shaw and Barkesdale's (1998) research findings. Tsui et al., (1997) also present four relationship types; a mutual investment relationship with high investment from both parties and a high soceo-emotional basis, a quasi-spot relationship, with low mutual investment that is purely economic in nature, and both an employer under- and over-investment relationship which are not balanced. Similar to Shore and Barksdale (1998), Tsui et al. (1997) found that the balanced relationships were the most prevalent in a large sample of workers from ten different organisations. The appeal of the framework offered by Tsui et al. (1997), is that it not only discusses aspects of balance in the employment relationship, but also goes some way in discussing the terms of the agreements too, stating that mutual investment relationship is likely to consist of soceo-emotional obligations whilst a quasi-spot relationship would concentrate on economic transactions.

4.4.1.3   Hybrid Psychological Contract Categorisations

Building on and combining work by Rousseau and her colleagues (1990, 1995; 2000) and Shore and Barksdale (1998) as well as other authors, Janssens, et al., (2003) proposed an extended categorisation system for PCs consisting of six PC types. These types differed on the dimensions of time-frame, tangibility, scope, stability, contract level and exchange symmetry. Time-frame and tangibility (the

specificity of obligations) are borrowed from Rousseau's relational-transactional divide. Scope (the permeability of the boundary between ones employment relationship and other life domains) is a dimension mentioned by McLean Parks et al., (1998) and stability (the extent to which the PC can be altered or changed without a renegotiation of the obligation terms) is a dimension discussed in early PC relational-transactional conceptualisations by Macniel (1985). The dimension of contract level describes the extent to which a PC is individually or collectively regulated, similar to the individualistic and standardised PCs put forward by Shaw and Tetrick (1994). The last dimension in Janssens et al.'s (2003) framework is exchange symmetry, which basically reflects how equal the exchange relationship is thought to be, in terms of hierarchy (e.g., differential status treatment of some employees) and inequalities.

Janssens et al. (2003) tested the above dimensions on a sample of 1106 Belgian workers from a variety of jobs and industries. A cluster analysis revealed a six cluster solution which is outlined in Table 6 below.

Table 6. Six Psychological Contract Types proposed by Janssens et al. (2003).

PC type	PC description
loyal	The emphasis is on long-term involvement and equal treatment in exchange for employee loyalty.
unattached	An emphasis on low expectations concerning long-term involvement in exchange for little loyalty.
instrumental	Employees have high expectations towards their employer, but they perceive themselves as having low obligations towards their employer.
investing	Employees have moderate expectations from their employer, while they perceive themselves as having high obligations towards their employer.
strong	High scores on all scales, on both employer and employee obligations.
weak	Low scores on all scales, concerning both employer and employee obligations indicating week ties.

The strong PC types were represented the most in the sample, with 23% of the respondents reporting scoring highly on all of the employer and employee obligation measures tested. The instrumental, week and loyal PC types followed with 19.5% of the respondents having each of these three types. Of these top four PC types three (strong, week and loyal) can be viewed as balanced contracts and therefore in line with Shore and Barksdale's (1998) findings that balanced contracts are predominant in the work environment. The last two PC types were rarer with 14.5% of the sample having an investing PC and the remaining 4% having an unattached PC.

In a similar vein, De Cuyper, et al. (2008) combined the transactional-relational element of PCs with the balance of the exchange to create a new typology of PC content. The categorisation was also

linked to the type of employment contract workers had (permanent or temporary). The results of a latent class analysis showed that in the sample of 1267 German and Belgian workers four distinct contract types emerged. These were mutual high obligations, employee over-obligations, employee under-obligation and mutual low-obligations. Temporary workers were more likely to hold PCs that had low employer investment in terms of balance and with transactional rather than relational elements (e.g., employee over-obligation and mutual low-obligations). This indicates that different job contractual arrangements can lead to the creation of particular psychological contract types.

A few other typologies have been suggested. These include a distinction between individualised and specific PCs which was suggested in a theoretical paper by Shore and Tetrick (1994a). The researchers postulate that in some firms a rather unified approach to PCs may occur, with many employees having similar obligations and promises made to them in an attempt at an egalitarian working environment. Other organisations may have a more individual approach to the employee's PCs crafting each one carefully to fit the needs of each employee. Such a contract represents an equity strategy, in which more employee input and engagement in the company would result in higher obligations and promises on the side of the employer. This is an interesting theoretical distinction, but has never been tested empirically.

Overall, research into the content of employees' PCs has favoured Rousseau's (1990; 1995) distinction between transactional and relational contracts. This model has dominated the literature since its conceptualisation. The issue of balance or imbalance in the PC relationship has also found its place, with Shore and Barksdale's (1998) work at the forefront. Other more complicated categorisations have not received the popularity of these classic differentiations, perhaps because they are not as readily integrated into the praxis with practitioners (e.g. managers and HR staff) preferring clear, simple models. The disadvantage of such an etic approach is that the richness of the exchange relationship is defused, and certain aspects of the PC may be lost. The type of contract that individuals have with their employment partner also has an impact on an employee's well-being and job attitudes. This issue is discussed in the following sections, alongside the themes of breach and violations in PCs in relation to how these affect a worker's well-being and job attitudes.

4.4.2   Measuring Psychological Contract Content

Before presenting empirical research into how PC content impacts well-being I will outline briefly how the content of PCs has traditionally been measured. The vast majority of studies measuring the content of PCs still rely on cross-sectional questionnaire surveys. The pros and cons of such survey methods are widely known, and include the ease of administration to large samples against the single snap-shot approach that cannot capture a process such as the formation and development of a PC. The bulk of the studies on PC content use multiple items to capture what employees believe they have been promised by the organisation. The items that researchers choose to include are mostly theoretically

driven reflecting the distinctions in PC type. For instance, the items in Table 7 below are examples from Rousseau's (2000) psychological Contract Inventory (PCI). Most PC content measures are of a similar type varying only in their specific items and the number of items covered.

Table 7. Example items from the Psychological Contract Inventory (PCI) (Rousseau, 2000)

Instructions:	
Consider your relationship with your current employer, To what extent has your employer made the following commitments or obligations to you?	
Transactional PC	Makes no commitment to retain me in the future
	Limited involvement in the organisation
	Requires me only to perform a limited set of duties
Relational PC	Makes decisions with my interests in mind
	Secure employment
	Concern for my long-term well-being
Balanced PC	Opportunities for promotion
	Contacts that create employment opportunities
	Helps me respond to ever greater industry standards

Note: Rating scale from 1 (not at all) to 5 (to a great extent)

Critiques of such measures are that the items often seem arbitrarily chosen, with little cohesions between studies (Conway & Briner, 2005). Such measures also often only measure what the employer has promised the employee, so do not capture the exchange aspect of PCs. Moreover, as many of these items are brief, important promises may not be included in the list. One further limitation is that no distinction is made between implicit and explicit promises, so differences between types of promises are not documented. However, a researcher using such a method is at an advantage in that they can include items that they feel to be the most important for a particular group of workers.

4.5 Psychological Contract Content: Well-Being and Work Attitudes

4.5.1 Relational and Transitional Content

The PC contents matter as it impacts on an employee's behaviours and well-being. The content of a PC (i.e., the promises) are thought to send important messages to the employee, which prompt particular employee behaviours and responses (Hui et al., 2004). PCs are often studied in relation to a number of well-being and organisational attitude measures including an employee's SWL, job satisfaction, job performance, organisational commitment, OCBs, and the employee's intentions to quit their job. As most empirical studies on PCs concentrate on the effects of breach (see Section 4.6), there is actually very little research focusing on the PC content and well-being outcomes (Hui et al., 2004) and those that do exist often have contradictory results. There are, nevertheless, a few key studies which I outline below.

Hui et al., (2004) conducted a study of steel workers in China to investigate the differences between relational, transactional and balanced PCs on the work attitude of OCBs. They hypothesised that relational and balanced PCs would be linked to more occupational citizenship behaviours than transactional PCs, as according to social exchange theory the employees would want to reciprocate the interpersonal side of these particular PCs with increased trust, support and respect. The results did not support this hypothesis however, with transactional contracts being directly related to OCBs and relational and balanced contracts only related to OCBs through the extra dimension of instrumentality (the belief that a particular behaviour will lead to a particular outcome). This result was thought to be due to the increase in transactional PCs in China making this type of contract a valued form of employment relationship.

In 2000, Coyle-Shapiro and Kessler studied a sample of public sector employees in a longitudinal investigation. The results showed that employees' perceptions of the employers' transactional, relational or training promises were generally not associated with the outcome measures of OCBs, job satisfaction, and organisational commitment. The only positive relationship was found between training promises and OCBs. This indicated that there was no real association between perceived promises and outcomes at all regardless of contract type apart from with training promises and OCBs. In a further study however, Coyle-Shapiro and Kessler (2002) found contradictory results as perceived employer obligations (the type was not measured in this study) were found to be positively associated with certain OCBs measured (helping colleagues, functional participation and advocacy participation) but not for others (loyalty or obedience).

In a cross sectional study carried out in Pakistan focusing on the differences between transactional and relational contracts Raja, Johns and Ntalianis (2004) found that public sector employees' perceptions of employers' transactional promises were negatively linked to affective organisational commitment,

job satisfaction and positively associated with intentions to quit. On the other hand, perceived relational promises were positively linked with both job satisfaction and affective commitment whilst also reducing an individual's intentions to quit. This is in line with what one would expect from such contracts according to social exchange theory and its reciprocity norms, with relational promises invoking not only job satisfaction but also feelings of commitment towards the firm and less desire to leave the firm as a response to personal commitment being shown by the employer.

In earlier studies, transactional psychological contracts were sometimes found to be the least favourable in terms of employees' work attitudes (Herriot et al., 1997; Robinson et al., 1994; Rousseau, 1995; Rousseau & Tijoriwala, 1998). Having a transactional rather than a relational PC has been linked to employees trusting their employers less (Rousseau and Tijoriwla, 1998), lower organisational commitment levels (Coyle-Shapiro & Kassler, 1998; Rousseau & Wade-Benzoni, 1995), and weakened employment relationships (Rousseau & McLean Parks, 1993). These eroded job attitudes are thought to contribute to lower job satisfaction and lower general well-being (Beard & Edwards, 1995). However, other researchers, such as Lambert, Edwards and Cable (2003) and Millward and Brewerton (1999) found very little evidence for affective and subjective consequences of having a transactional or relational PC. Such mixed results seem to indicate that the relational-transitional divide is not as distinct as it could be. Although this categorisation is the popular one in the PC literature, it may not be appropriate to attempt to fit idiosyncratic expectations into one of these two PC content types at all.

4.5.2 Exchange Balance, Well-Being and Job Attitudes

The balance of the psychological contract also has consequences for employee well-being and job attitudes. In Shore and Barksdale's (1998) study there was a marked difference between workers' attitudes with a mutual high obligation PC than the other PC types. Those with a mutual high obligation PC (balanced high obligations on the employee and employer's sides) had the lowest intentions to leave the firm, had the highest organisational commitment levels, believed they had higher chances of continuing their careers in the firm, and most likely to perceive their organisation as being supportive. The least favourable PC was found to be employee under-obligation where turnover intentions are high and commitment levels low. This imbalanced PC is thought likely to occur when an employee starts to withdraw obligations in order to redress a previous perceived imbalance (Shore & Barksdale, 1998).

Tsui et al. (1997) also studied the effects that PC balance has on employee attitudes. Their results also indicated that those employees holding a mutual investment (balanced high investment) PC displayed the highest levels of affective commitment, exhibited more organisational citizenship behaviours and performed better on their core tasks than those with quasi-spot, or under-investment PC. Koh and Yer

(2000) also found similar results when replicating this study in a sample of temporary contingent workers.

When combining the relational-transactional aspects of PCs with the balance of the exchange, De Cuyper et al.'s (2008) results were in line with previous findings. The PCs that were found to be the most favourable for the employees were those with mutual high obligations that also had relational aspects within them. These mutual high obligation PCs were associated with higher organisational commitment and job satisfaction that other PC types and those with such a PC reported higher life satisfaction than those with employee over-obligation PCs.

In sum, it seems that the content of an employee's PC is, indeed, important. There are more cohesive results in the scarce literature relating to contract content balance, than in studies pertaining to the relational-transactional categories. Although there are mixed results relational PCs and those that are balanced with mutually high obligation levels are generally considered to be most favourable for employees. These PC types tend to lead to more positive job attitudes especially in terms of feelings of commitment towards the organisations and well-being at work (job satisfaction).

4.6   Breach and Violations of Psychological Contracts

Psychological contract breach is the most studied aspect of PC exchange relationships with the lion's share of research concentrating on this idea. The concept of PC breach is also the most useful in terms of interpreting how an employee's PC can affect their behaviours, work attitudes and well-being. Morrison and Robinson (1997) defied breach as, "*an employee's cognitions that the organisation has failed to meet one or more obligations within one's psychological contract in a manner commensurate with one's contributions*" (p. 230). This has become a standard definition for breach used in many papers. A PC breach can occur in any aspect of the PC, be it a perceived intrinsic or explicit promise (Rousseau, 1989). This means the range of possible breaches is rather large and can span from a mild oversight (e.g., a manager not praising an employee for good work although this is normally the case) to more dramatic cases (e.g., an employee's legal contract being extended for a month, although they were promised a secure permanent position).

A further distinction is also made between a PC breach and a violation. A violation refers to the affective or emotional reaction (e.g., anger or betrayal) that may follow a PC breach, after a perceived obligation has not been fulfilled (Morrison & Robinson, 1997). Violations are thought to be emotionally distressing for those who experience them (Rousseau, 1989) and this term seems to be reserved for referring to extreme reactions to a PC breach situation. This separation of the cause (breach) and the effect (violation) of PC is a useful one, although the terms are often used interchangeably in many of research papers with breach being the most commonly studied phenomenon.

There are a number of reasons why a PC breach may occur. One distinction separates *reneging* on a PC from *incongruence* (Morrison & Robinson, 1997; Robinson & Morrison, 2000). Reneging is when an agent of the organisation willingly fails to meet an obligation that they know has been agreed upon. An example here would be a manager in a yearly appraisal promising an employee a budget for management training, and then not delivering sufficient funds for the training. Incongruence is when a breach is perceived by the employee because the employee and the agent of the organisation have different understandings as to what has been agreed upon or the nature of the obligation. Incongruence is a consequence of the PC existing only in the eye of the beholder, being interpreted differently by different parties. An example of an incongruent breach could be a recruiter stating in the job interview that, "*Employees tend to go up a pay scale after the first year.*" This may be construed as an implicit promise by the employee but not as a promise by the recruiter. If the employee does not go up a pay scale they would perceive a PC breach whilst the recruiter would not, having inadvertently breached an implied promise. In a longitudinal study Robinson and Morrison (2000) found that breaches were more likely to be perceived when socialisation processes were weak, when there were fewer interactions with organisational representatives before being hired, and when the organisation as a whole and the employee were performing poorly. Surprisingly, there were no significant interaction effects of attribution (incongruent vs. reneging breach) on breach and feelings of violation although the theoretical distinction seems sound.

As touched upon in Robinson and Morrison's (2000) study, a further way in which breaches are thought to be perceived is when there are insufficient human resource (HR) practices in place. In a set of studies Guest and Conway (1998; 1999; 2001; 2002; 2005) found that in companies lacking clear and consistent human resource management practices employees tend to report more instances of PC breach. Such HR practices can include a clear recruitment and socialisation programme, a clearly defined training programme, regular feedback, regular communication and consequential pay rises.

I mentioned earlier that intrinsic promises can be perceived by looking for cues from colleagues and observing the way in which they are treated by the organisation (see Section 4.2). This type of social comparison has also been highlighted as a possible antecedent to breach. Ho (2005) postulates that if an employee compares themselves to a colleague and finds that they have an unfavourable PC deal compared to their peer, that they would be more likely to perceive a breach of their own PC as they would experience their deal as being inequitable. On the other hand, if their own PC is a better deal that their colleague's the employee would be more likely to see their PC as being fulfilled. Ho (2005) did not test this theory empirically, but Conway and Briner (2005) point to their study comparing part-time and full-time workers in the same job as a proxy measurement for this phenomenon. Part timers were found to report having a more fulfilled PC than full timers doing the same job, as they reported getting a more equitable deal than their colleagues (Conway & Briner, 2005).

PC breaches come from subjective perceptions regarding the events which are taking place at work. These events are changing constantly and the perceptions which fuel the feelings of breach and violation result from everyday experiences of employees in their firms (Conway & Briner, 2005; Rousseau, 1995). Most research into PC breaches focuses on the consequences of breaches which is surprising as contract breach is thought to have a large impact on attitudes, behaviours and well-being at work. This is discussed in depth in the following sections. Unpicking how breaches emerge and can be staved off is rarely touched upon in the literature, although it is thought to be of utmost importance (Zhao, Wayne, Glibkowski, & Bravo, 2007).

Two recent studies have attempted to investigate the antecedents of PC breach. Bal, Hofmans and Polat (2017) studied perceptions of breach in conjunction with the conservation of resources theory (Hobfoll, 1989) which posits that people experience stress when they face threats to or losses of resources. Resources here are conceptualised as "*aspects of the job that help achieve work goals and stimulate personal growth*" (Bal et al., 2017, p. 148). High job demands, such as high stress at work or a high work load are thought to drain workers' reservoirs of energy for the job, making them more likely to experience resource loss over time. Theoretically, Bal et al. (2017) postulate that this resource loss may mean that workers would be more likely to perceive breaches and violations of their PCs in the week after very high job demands as they may be more susceptible to interpret negative events at work as a contract breach. The negativity associated with the high job demands may spill over into the following week and make workers more prone to interpret ambiguous situations negatively. The results of the study supported this theory, as high job demands in one week were related to an increased perception of PC breaches in the next week when there were low levels of autonomy and social-support. This study indicates that high job demands may be an antecedent to perceiving PC breaks if coupled with low job latitude and inadequate support networks. Similar findings were reported by Vantilborgh, Bidee, Pepermans, Griep & Hofmans, (2016) who found that increased job demands lead to decreased positive affect whilst increased resources lead to increased positive affect and decreased negative affect. These in turn had an impact on how readily employees experienced a promise break with increased negative affect leading to more breaks being reported and increased positive affect leading to less breaks being perceived. These studies indicate that job demands and job resources may well play a role in the way that workers interpret events as being PC breaches.

In sum, PC breaches can be perceived by the employee for a number of reasons. These include, deliberate breaching of a PC by the organisation (reneging), accidental breach due to misinterpretation of intrinsic promises (incongruence), and comparisons of employees to colleagues with better PC deals. The HR practices in an organisation are also a key factor here, because an antecedent of PC breach is a lack of clearly defined and well managed HR processes and procedures. A further antecedent of PC breaks is thought to be high job-demands which drain employees' resources and shroud the workplace in negativity. I now turn to discuss ways in which PC breach is measured and

include critiques of such techniques and recommendations for future work, and then go on to present empirical studies on the outcomes of PC breach and violations.

4.6.1 How to Measure Psychological Contract Breach

The measurement of the PC and PC breach has been deemed an "*analytical nightmare*" partly due to the lack of understanding about the relationship between the many variables that have been operationalised under the PC construct (Cullinane & Dundon, 2006, p. 116) and partly due to the idiosyncratic and subjective nature of the concept (see also Section 4.2). Nevertheless, researchers have taken on the challenge of measuring PC breach. PC breach measurement is referred to as being evaluated-orientated (Rousseau and Tijoriwala, 1998) as they assess the degree of change, violation or fulfilment that is experienced in the context of the PC. This has been done on both a global and item (promise) specific level.

It is often the case that after assessing the PC for its content (see Section 4.4) researchers will assess the state of the content on one or more global items (e.g. Restubog, Bordia & Bordia, 2011; Robinson & Morrison, 2000; Robinson & Rousseau, 1994; Rousseau and Tijoriwala 1998; Tekleab & Taylor, 2003). In order to ensure the content validity of such measures Freese and Schalk (2008) urge researchers to use multiple items although this is not always done. I present a sample of popular global items for PC breach in Table 8 that, although relatively old, have been used time and time again.

There are limitations and advantages of using such global measures. The main advantage is that the questions are quick to answer, saving time during questionnaire administration (Cullinane & Dundon, 2006). This time saving comes at a high cost however, as the nuances of the PC breach are lost (Freese and Schalk, 2008). It is not clear from such measures which promises are broken and whether they were explicit or implicit promises.

Table 8. A Selection of Global Psychological Breach Items

Item	Scale	Authors
I felt that my employer has come through in fulfilling the promises made to me when I was hired	Extremely fulfilled (1) to not fulfilled (5)	Robinson and Morrison (2000)
A: Has or had your employer ever failed to meet the obligation promised to you? (if yes please explain). B: How well, overall, has your employer fulfilled the promised obligations that they owed you?	A.Yes (1) / no (0) B:very poorly fulfilled (1) to very well fulfilled (5)	Robinson and Rousseau (1994)
A: In general, how well does your employer live up to its promises? B: Overall, how well does your employer fulfil its commitments to you?	A: ☺ (1) to ☹ (5) B: ☺ (1) to ☹ (5)	Rousseau and Tijoriwala (1998)

In specific measures of PC breach a standard approach is to list a number of promise items and to ask the participants to state whether, or to what extent the organisation has fulfilled each particular promise or not (see Table 9 for a selection of such items). The mean scores are then calculated for each individual producing a breach score for each employee.

Table 9. A Selection of Specific Psychological Breach Items and their Scale Measures

Item	Scale	Promise Terms
Coyle-Shapiro & Kessler (2002)		
A: To what extent is the organisation obligated to provide X?	A:5 point scale: not at all (1) - to a very great extent (5).	Item number not given -Long term job security -Good career prospects
B: To what extent does the organisation provide X?	B:5 point scale: not at all (1) - to a very great extent (5).	-Support to learn new skills -Pay increase to maintain standard of living
C::Is X sufficiently provided for by the organisation?	C:5 point scale: not at all (1) - completely (5).	
Guest & Conway (2002)		
A: Indicate the extent to which the organisation promises or commits itself to provide the items listed.	A: 4 point scale: No promise made (1) - written or verbal promises have been made (4)	13 items e.g.: -Opportunities for promotion -A fair rate of pay
B: What extent has the organisation met its promise or commitment?'	B: 4 point scale: not met (1) - exceeded (4).	-Reasonable job security. -A safe working environment
Kickul, Lester, & Finkl (2002)		
A:Please place an 'X' in the box of those obligations that your organisation has communicated to you	A: Dichotomous scale (1/0)	26 items e.g.: -Job security -Well-defined job responsibilities
B: Indicate the extent to which your employment has fulfilled the promises above that you have marked with and 'X'.	B: 5 point scale: Not at all fulfilled (1) to very fulfilled (5)	-Career guidance and mentoring -Recognition of my accomplishments -A reasonable workload

Although these specific measures are assessing breach, they tend to ask to what extent promises or obligations have been fulfilled. This approach assumes that there is a lineal relationship between breach and fulfilment and that they are polar opposites. However, there is evidence, to suggest that this is not the case (Guest & Conway, 2002) raising questions regarding the validity of such questions. Conway and Briner (2005) speculate that the reliance on using fulfilment in the wording of questionnaire measures used in organisations may be to ensure researcher access to employees. The

distribution of questionnaires which include negatively worded questions about organisations breaching their agreements may be vetoed by the organisation, not wanting to appear in a bad light.

One further debate relating to measurement of PCs is that the role that promises play in the employment relationship is unclear. Some studies claim that promises in themselves serve to reduce uncertainty, build trust and to foster positive feelings on which to build positive relationships (Rousseau, 2001; Rubin & Brown, 1975; Shore & Tetrick, 1994a).whilst others are speculative and find that promises do not matter much but it is the delivered inducements which are key (Lambert et al., 2003; Montes & Irving, 2008; Montes & Zweig, 2009). This problematic stems from the measurement of PCs, in that with a global items and most specific measures one cannot extract the two parts of a fulfilled promise which are the promise and the actual inducements delivered, so there is no way to control for them. These two elements are combined, forming one item and it could well be that one element (actual inducements delivered) is the one with the predictive power with promises simply confounding this (Arnold, 2006). The only solution to this is to use a two-part question approach, and ask first if a promise regarding an item was made and then asking how much this had been fulfilled. It would then be possible to control for promises and to determine how important they are.

As in the case with measuring PC content (see Section 4.4.2) most studies on breach are cross-sectional questionnaire measures with the exception of a limited number of longitudinal design studies with few time points. Guest and Conway (2005) call for the use of more appropriate measures that would help to capture the development or change of PCs over time and that could record daily reactions to PC breaches on the individual and between person levels. They highlight daily diary methods as a way to overcome these measurement problems. In one of the very few diary studies on PC breach, Conway and Briner (2002a) asked employees to report on any PC promises that had been broken each day for a two week period. Participants were also asked who broke the promise, where the promise originated from and the broken promises were rated for their explicitness. Feelings of violation were also tested daily. This method of measurement has its advantages, however, it involves more investment in terms of time and effort on the part of the participants.

Similar to the PC content there are also debates regarding the inclusion or exclusion of the employees' commitments to the firm and whether they feel they have delivered on their promises, as in essence the PC reflects a mutual and reciprocal arrangement of contract terms. A few measures do include the employees' PC contributions (Rousseau, 1990; 2000; Freese & Schalk, 1996; Herriot et al., 1997) although most studies and measures tend to focus on the delivered or breached items from the employers' side. It is also a rarity to find a study measuring the organisation's view of the PC and whether the organisation feels that they or their employee has breached or fulfilled the PC (e.g., Chen, Tsui & Zhong, 2008; Tekleab & Taylor, 2003). This may be due partly to the complexities and time

involved with conducting research on employee/employer dyads, but it is an area which lacks research.

PC violation is a less studied aspect than PC breach and there seem to be only two measures that are widely used. The first is a 4 item measure by Robinson and Morison (2000) which measures feelings of frustration, betrayal, and anger on a 5 point scale. Example items are; "*I feel betrayed by my organisation*" and "*I feel that my organisation has violated the contract between us*." A second scale created by Freese and Schalk (1997) asks respondents to indicate whether the degree to which the organisation has fulfilled their expectations is acceptable or not. These expectations are presented as a list of PC items as in the itemised breach scales above (see Table 9). One criticism of violation measures is that the results may be very time specific, as reactions to breaches are likely to fluctuate over time (Freese & Schalk, 2008).

4.7 Outcomes of Breach: Well-Being, Work Attitudes and Employee Behaviours

PC breaches is a useful way of interpreting how the PC can influence an employee's behaviours at work, work attitudes and well-being. In this section I will review a selection of literature that investigates the outcomes of PC breach, focussing on three areas which Bal, De Lange, Jansen and Van Der Velde (2008) identified to be important in a large meta-analysis; well-being and affective reactions, work attitudes and work engagement, and work behaviours and employee effectiveness.

4.7.1 Well-Being and Affective Reactions to PC Breach

4.7.1.1 Satisfaction with Life, Positive Affect, Negative Affect and PC Breaches

When an employee perceives a breach to have occurred, PC theory suggests that a range of affective responses may occur. If a PC promise is broken then feelings of mistrust and violation are likely as the employee feels let down by the firm (Guest, 2016; Zhau, Wayne, Glibkowski & Bravo, 2007). In addition lowered SWL and job-satisfaction would be expected, as would changes in affective well-being. Within PC breach research the focus tends to be on work outcome measures and the affective and well-being variables reflect this. The majority of studies measure well-being through work-related measures such as job-satisfaction and rarely on a more global level such as SWL. NA and PA are also rarely covered, with affective reactions relating to the employer-employee relationship, such as trust, being more common. An exception to this is a diary study by Conway and Briner (2002a).

Conway and Briner's (2002a) diary study investigated affective reactions to broken and exceeded promises on a daily basis for a two week period. Respondents were 45 part-and full-time employees from a variety of occupations. Results indicated that breaches were fairly common, with 69% of the sample reporting at least one promise break in the 2-week period with the average being one promise break per week. This is considerably more than previously reported, e.g., Roberson and Rousseau

(1994) found that 55% of newcomers reported a promise broken in the first two years of work. When considering daily mood, days where a promise was broken were linked to significantly higher depression scores (NA) and lower enthusiasm (PA) whilst the opposite was true on days when promises were exceeded (Conway & Briner, 2002a). Emotional reactions, (feelings of betrayal and feeling hurt) were also found to be highly significantly linked to broken promises. This study illustrates that the PC can be used as an important tool to understand employee's daily fluctuations in mood and emotional reactions. This trend that affective well-being is negatively associated with unfulfilled PC promises has been confirmed in cross-sectional and longitudinal studies (Conway & Briner, 2002b; Montes & Irving, 2008) which show that the further the under-fulfilment of contracts deviate from what was promised, the stronger the effect on satisfaction (Lambert et al. 2003)

In a further study, Conway and colleagues (Conway, Guest & Trenberth, 2011) looked at the difference between PC fulfilment and breaches on well-being indicators. They found similar results to previous studies, in that PC breach was associated with higher NA, lower PA and job satisfaction. However, the negative effects were much more pronounced on the breach end of the continuum, than the positive associations were with fulfilment of the PC. They found differential effects: if a PC was fulfilled there was only a continuation of the well-being levels (or a very slight increase) whereas in the case of a breach, a greater effect was found. This indicates that it is breach rather than fulfilment of the PC that has the largest impact on employees. So, to my mind this indicates that fulfilment of a PC is simply expected by employees, with little rises in satisfaction as a result.

4.7.1.2 Physical Well-Being and PC Breach

PC breach has also been found to be negatively related to physical as well as mental health although there is a paucity of empirical studies on this theme (Reimann & Guzy, 2017). A meta-analysis by Robbins, Ford and Tetrick (2012) concentrated on the impacts of organisational justice (the extent to which an individual views organisational events to be fair or unfair: Greenberg, 1987) and PC breach on a number of important health outcomes. These included burnout, stress and strain indicators, negative states, absences, and unhealthy behaviours such as drinking and smoking. The results showed that PC breach does predict a range of negative somatic outcomes related to strain. The breaches also explained variance above and beyond that of organisational injustice alone. At least half of the health variables included in the meta-analysis were negatively influenced by breaches in individuals' PCs.

A more recent longitudinal study on psychological contact breach and health related quality of life (mental and physical health) was carried out in Germany (Reimann & Guzy, 2017). The sample was large and included 3,800 participants who were recruited and questioned using computer assisted telephone interviews. Reimann and Guzy (2017) investigated the relationship between psychological contract breaches and PC imbalance and physical well-being and tested whether mental health would mediate this relationship. They found that physical and mental health were significantly negatively

affected by breaches in psychological contracts and by having an unbalanced PC with overall imbalance having a stronger effect than the individual dimensions of PC breaks. Mental health was more affected by PCs than physical health as the reactions recorded were mostly stress reactions, which is thought to be more closely linked to mental rather than physical health (Reimann & Guzy, 2017). As PC breaches must be cognitively evaluated as a breach before any reactions occur the authors hypothesised that mental health would mediate the relationship between PC breaches and physical health. Indeed, this was found to be the case. Employees' mental health was found to mediate the negative effects of promise breaks on physical health, the better the participants' mental well-being, the less impact PC breach made on physical health. Overall this study found undelivered obligations in PCs and an imbalance in PCs to be psychosocial work stressors which create a risk for employees' mental and physical health. Recommendations for practice include increasing and improving the lines of communication between the employee and employer and focusing the employer's attention on health promotion in the workplace.

4.7.2   Work Attitudes and Engagement and PC Breach

4.7.2.1   Job Satisfaction and PC breach

Breaches in PCs have also been found to have implications for workers' occupational satisfaction levels. In their classic study on MBA students who were also in work, Robinson and Rousseau (1994) found that satisfaction with the job and with the organisational were negatively affected by breaches in the employees' PCs. Twenty years later these results are still being confirmed, De Wang and Hsieh (2014), for instance, found that job satisfaction was significantly negatively influenced by breaches in a sample of Taiwanese workers. Other studies over the years have also added evidence that perceived breaches in employees' PCs lead to lowered job satisfaction (e.g., Bunderson, 2001; Conway & Briner, 2002b; Conway, Guest & Trenberth, 2011; Coyle-Shapiro & Kessler, 2000; Sutton & Griffin, 2004).

4.7.2.2   The State of the Psychological Contract

In 2004, Guest (2004a, 2004b) highlighted the need for more research into PCs that also investigate central work issues such as trust and fairness with a contextual backdrop of human resource management practices in firms (please see Robbins, Ford & Tetrick, 2012 for a good study on organisational fairness and PC breach). Guest referred to these features, and the fulfilment of promises as the *state* of the PC. He stresses the fact that the PC literature should attempt to make the PC part of a wider analytical framework reflecting the employment relationship which integrates the context as well as merely looking at the PC as a collection of individual promises (Guest 2004b). Guest presents a framework for considering the PC in context which is reproduced below (see Figure 21). Within the framework fairness and the delivery of the deal are highlighted as important states leading to trust and affecting attitudinal and behavioural outcomes, such as well-being, and job performance.
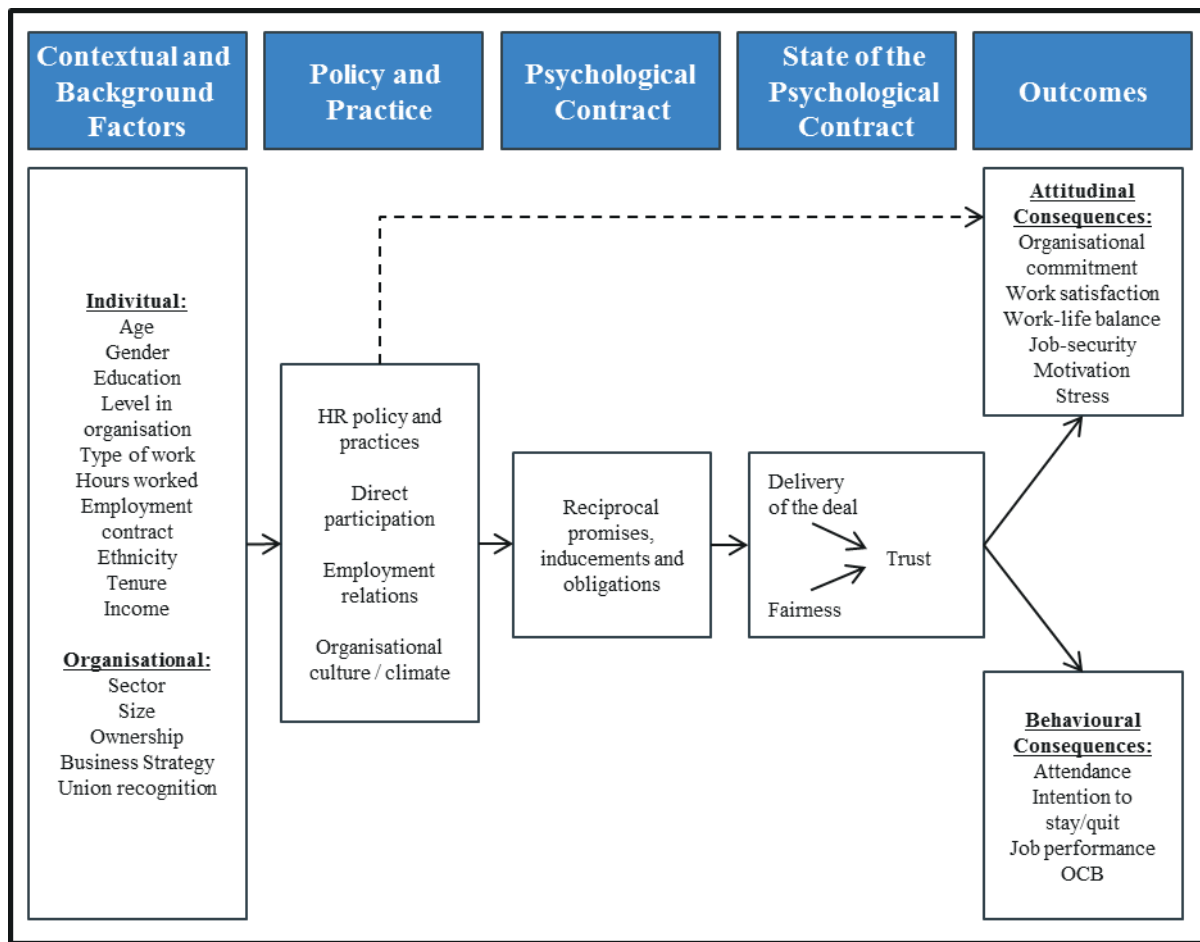
Figure 21. A framework for applying the psychological contract to the employment relationship (Guest, 2004b, p. 550)

Empirical evidence is rather clear on the subject of trust, with breaches in PCs linked to a lack of, or decrease in employees' trust in their organisations (Guest, 2016; Robinson, 1996; Robinson, Kraatz & Rousseau, 1994; Bal et al., 2008; Lapointe & Vandenberghe, 2016). This has also been confirmed in non-western sample, with a study of Chinese workers showing the same trend (Lo and Aryee, 2003). More recently, Montes and Irving (2008) found employers react differently depending on whether they had a relational or transactional PC type. They found trust to be more affected when a relational PC was broken as oppose to a transactional one. Across the board, though, trust has been found to be negatively affected by PC breaches (Guest, 2016).

4.7.2.3   Organisational Commitment and Psychological Contract breach

Affective organisational commitment, a standard outcome measure in occupational psychology, describes the extent to which employees identify and feel involved with their organisation (Cook & Wall, 1980). It is often measured with a multiple item scale with items tapping into feelings of belonging and being proud of the organisation, ie., '*I feel myself to be part of the organisation*' and '*I am proud to be able to tell people who it is I work for*' (Allen & Meyer, 1990). In general, PC breach

is associated with a lowered level of organisational commitment and fulfilment of PCs with higher commitment levels (Bunderson, 2001; Casser & Briner, 2011; Conway & Briner, 2002b; Conway, Guest & Trenberth, 2011; Epitropaki, 2013; Lapointe, Vandenberghe, & Boudrias, 2013; Raja, Johns & Ntalinis, 2004). Differences have been found, however, depending on PC type. In a study of medical practitioners Bunderson (2001) found that a breaches in relational PC terms was highly associated with a reduction in organisational commitment, whilst breaches in transactional terms was not associated with changes in commitment level.

In a recent study of hotel workers from over 30 hotels in Macau, affective commitment and organisational identification was closely examined alongside PC breach (Li, Wong & Kim, 2016). Organisational identification describes the extent to which a worker feels their identity is congruent to the identity of the place of work in regards to enhancing the worker's membership and esteem in the firm. In this study organisational identification was measured using items tapping this identity congruence such as "*When somebody criticizes this hotel, it feels like they are insulting me*" (p. 5). The results were analysed using multi-level modelling with individuals on the within-level and hotels on the between level. In short, the results showed that PC promise breaches had a negative impact on hotel workers' organisational identification and their affective commitment levels. In turn, Li et al. (2016) also found that organisational identification and affective commitment had an impact on job performance, with low identification and low commitment being tied to low job performance. Here, unusually so and in an exemplary manner, job performance was rated by the workers' managers and not with a self-report measure. This study indicates that a PC that is characterised by breaks can harm the strong bonds which exist between individuals and firms or stop these bonds being formed in the first place. The consequence of this is a negative impact on worker performance. A fulfilled PC seems to be an antecedent of organisational commitment, at least in hotel workers (Li, et al., 2016; Lub, Bijvank, Bal, Blomme, & Schalk, 2012).

4.7.2.4   Work Engagement and PC Breach

Work engagement is related to an employee either absenting or presenting themselves during tasks (c.f., Kahn, 1990). Work engagement is a motivational psychological state that accompanies the behavioural investment of personal energy and is typified by three strands: vigour, dedication and absorption (Rayton & Yalabik, 2014). Work engagement has been found to be negatively influenced by PC breaches with employees with breached contracts being less dedicated to their work, investing less of a consistent effort in their work and being less absorbed in their tasks (Bal et al., 2008; Parzefall & Hakenen, 2010; Rayton & Yalabik, 2014). Job satisfaction has also been found to be a mediator in the relationship between PC breach and work engagement with highly satisfied workers having less of a reduction in work engagement in the face of PC breach than those who were less satisfied with their jobs to begin with (Raytona &Yalabik, 2014).

4.7.2.5   Turnover Intentions

If a PC is breached there is also ample empirical evidence to suggest that an employee's intentions to leave or quit the organisation rises (Bunderson, 2001; Coyle-Shapiro & Kessler, 2002; Robinson and Rousseau 1994; 1994; Turnley and Feldman 1999; van der Vaart, Linde & Cockeran, 2013). Intention reflects the desire of a worker to leave the firm of their own accord sometime in the near future. It is measured either by a one-item or multi-item measure, with items such as, '*these days I often feel like quitting*' (van der Vaart et al., 2013) and '*I will probably look for a new job in the next year*' (Conway & Briner, 2002b) Psychological contract breach (or absence of fulfilment) is thought to lead to negative emotions (Zhao et al., 2007,), which increases employees' intentions to leave and eventually their turnover behaviour. Recently a study by Lapointe, Vandenberghe, and Boudrias (2013) studied the relationship between breach and turnover intentions and found that affective commitment to the organisation was a mediator in the relationship. The more committed an employee was to their organisation, the less negative the effect of PC breach was on their turnover intentions.

4.7.3   Behavioural Reactions to Psychological Contact Breach

It is commonly believed that behavioural reactions to the breach or fulfilment of a PC could follow affective reactions. One explanation to this is that when a breach is perceived, the employee adjusts their behaviour in order to redress the balance of the contract (c.f., Shore & Barksdale, 1998; Jensen, Opland & Ryan, 2010). or in extreme cases to get revenge on their employer through the form of withdrawal or deviant behaviours (Jensen, et al., 2010; Zagenczyk, Restubog, Kiewitz, Kiazad, & Tang, 2014). Such behaviours include quitting the job, engaging in workplace deviance, withdrawing OCBs, substandard work performance and ceasing contributing. These behaviours come at an enormous cost to the organisations (Chiu & Peng, 2008) which can be devastating.

4.7.3.1   Actual Turnover as a Result of Psychological Contract Breach

In the previous section I presented an increased intention to quit as a consequence of PC breach, here I turn to the behaviour associated with this work attitude, actual turnover. Continuing to work for an organisation is an employee contribution to the deal, and if they perceive that the employer is not making a fair input into the PC then this continuation to work is seen as fuelling an unfair exchange (Robinson et al., 1994). An early study by Robinson and Rousseau, (1994) found that of those employees who remained in their firm 48% had experienced PC violation, whereas of those who quit their jobs, 78% had experienced violation. They found that the number of violations of an employee's PC was positively related to their turnover behaviour, in other words, the more violations an employee experienced the more likely they were to actually quit their job. Similar results are also reported in various other studies (Robinson, 1996; Tekleab, 2005; Turnley & Feldman, 1999). Bunderson (2001) found that health care professionals were more likely to quit their jobs if they perceived that their organisation had not delivered on administrative PC items that have transactional elements to them.

This result is in line with Rousseau's (1995) reasoning that turnover may be a more common outcome of breaches of transactional rather than relational PCs as the additional investment into relational obligations was never made, the cost of exiting the firm are lower. In addition a breach of a transactional item is likely to be rather clear cut and stark, whilst transactional breaches less so, thus defining a breach may be easier and a stronger reaction (such as quitting) a possible result.

4.7.3.2 Workplace Deviance and Revenge as Outcomes to PC Breach

A further dramatic outcome of PC breach is that of workplace deviance which is "*voluntary behaviour that violates organisational norms and that harms organisational functioning and organisational members' benefits*" (Robinson & Bennett, 1995, p. 556). Motivated by revenge, employees with breached PCs may turn to workplace deviance as a way to get back at the firm (Bordia, et al., 2008). In a study on Filipino public sector workers Bordia et al. (2008) found that PC breach was positively associated with revenge cognitions and workplace deviance. The relationship between revenge cognitions and deviance behaviour was mediated by self-control, with workers high in self-control displaying less deviant behaviour after a breach than those low in self-control. Similar results were found in a study by Chiu and Peng (2008) that found breaches to be positively related to workplace deviance, with this relationship being stronger for workers who were high in hostile attribution style (HAS). HAS is an employee's tendency to attribute negative workplace events to external, stable, employer-controllable, and employer-intentional causes, thus workers high in HAS are likely to have attributed the breach as being intentionally caused by the employer spurring on more deviant behaviours (Chiu & Peng, 2008).

A very similar construct to deviant behaviours at work is that of counterproductive work behaviour (CWB). CWB is an overarching term which refers to intentional employee behaviour that harms or intends to harm an organisation or its workers. This extends to workers and customers. CWB can be relatively minor such as negative interpersonal behaviours (e.g., shouting at colleagues) to the more severe such as theft of office equipment and purposely doing work incorrectly (Rorundo & Spector, 2011). Recently a study of PC breaches and CWBs was carried out amongst approximately 250 volunteer workers (Griep, Vantilbourg, Baillien & Papermans, 2016). This study was a diary style study, which comes with the advantage of being able to track the variables over time. It emphasised the pivotal role that PC violations have in explaining maladaptive behaviours at work. The researchers worked with lagged data, comparing breaches in one week to behavioural responses the following week. They found that if a volunteer perceived a PC violation one week then they were more likely to display CWBs towards the organisation, but not towards individuals the following week. Additionally, perceiving a breach in the PC contract one week, made it more likely that the respondents reported a PC breach the following week.

In their diary study Griep and his colleagues (2016) also collected data relating to momentary leader-member exchange (LMX) which is a key occupational psychology view which highlights the quality of exchanges between a leader and follower. LMX posits that "*effective leadership processes occur when leaders and followers are able to develop mature leadership relationships (partnerships) and thus gain access to the many benefits these relationships bring*" (Graen & Uhl-Bien, 1995, p. 225). As predicted by the authors, having a high-quality LMX relationship attenuated the link between feelings of violations one week and organisational CBWs the following week, and between violations and the probability to perceive a PC breach the following week (Greip et al., 2016). In cases of PC breaks then, this study indicates that high-quality LMX can go a long way in mitigating the links between breaches and negative behaviours at work. An open, honest and mature relationship with one's supervisor (high-quality LMX) may, then, be an effective mechanism in redressing issues created by breaking PC promises.

4.7.3.3 Organisational Citizenship Behaviours in the Face of Psychological Contract Breach

The links between increased occupational citizenship behaviours and PC breach are very well documented. Although the effect sizes in the studies vary somewhat there is a consensus that breaches in PCs lead to less OCBs. For instance, Robinson and Morrison (1995) reported a positive association between fulfilment of PC items and OCBs (civic virtue), and Turnley and Feldman (1999) reported a general negative effect of breach on OCBs. Many studies have evinced similar results (e.g., Conway & Brinner, 2002a; 2002b; Coyle-Shapiro & Kessler, 2000; Philipp & Lopez, 2013; Zagenczyk, 2014). Most occupational citizenship behaviours are measured in studies using self-report methodologies. However, the breach—OCB relationship also holds up to more objective measurement styles. Turnley, Bolino, Lester & Bloodgood (2003) asked employees' supervisors to rate their subordinates' OCBs. These were then matched to the employee reports of their PCs. The relationship between PC fulfilment and supervisor rated OCBs was strong with 8% of variance of OCB-Is being explained by PC fulfilment and 21% of OCB-Os towards the organisation.

4.7.3.4 Work Performance, Workplace Contributions and PC Breach

I now turn to workplace contributions and work performance after a PC breach has been perceived. A meta-analysis by Zaoh et al. (2007) found that PC breach was related negatively to in-role behaviours and performance which means that employees with breached PC contracts performed less well (e.g., lower productivity, not completing job tasks, and lowered quality of work) in their everyday job tasks than those with unbroken PCs. This supported previous findings (e.g., Bunderson 2001; Kickul, Lester & Finkl, 2002; Lester, Turnley, Bloodgood, & Bolino, 2002; Restubog, Bordia & Tang, 2006; Tekleab &Taylor 2003; Turnley, Bolino, Lester & Bloodgood, 2003).

Withdrawal of contributions to work has also been found to be a behavioural outcome of PC breach. For instance, Suazo (2009) found that when a PC had been breached employees of a fortune 500 company in the US were more likely to reduce their initiative behaviours including contributions to ideas, making constructive suggestions and delivering creative solutions. More recently Wang and Hsieh (2014) found that acquiescent silence (the withholding of relevant ideas, information, or opinions, based on resignation) significantly increased with PC breaches. Additionally, in a longitudinal study of UK public service workers, Conway, Kiefer, Hartley and Briner (2014) found that PC breach predicted a decrease in contributions towards the organisation, but not towards co-workers, or the service users. This indicates a deliberate withdrawal of behaviour targeted at the organisation because of a perceived failure of the organisation to deliver its promised contributions.

4.7.3.5   Post Psychological Contract Violation.

Although the behavioural consequences of a broken PC promise or a violated PC can be extreme with some employees finding the break so severe that they quit their jobs, there are also many employees who have had promises made broken to them but decide to stay on with the company. Tomprou, Rousseau and Hansen (2015) point out that there is little research to explain what happens to these violation victims post-violation and we do not know how a functional PC is built up again. In their paper they present a theoretical measurement model to be tested (see Figure 22). This model is large in scope and as jet untested so I shall outline the most salient features of the model in short.
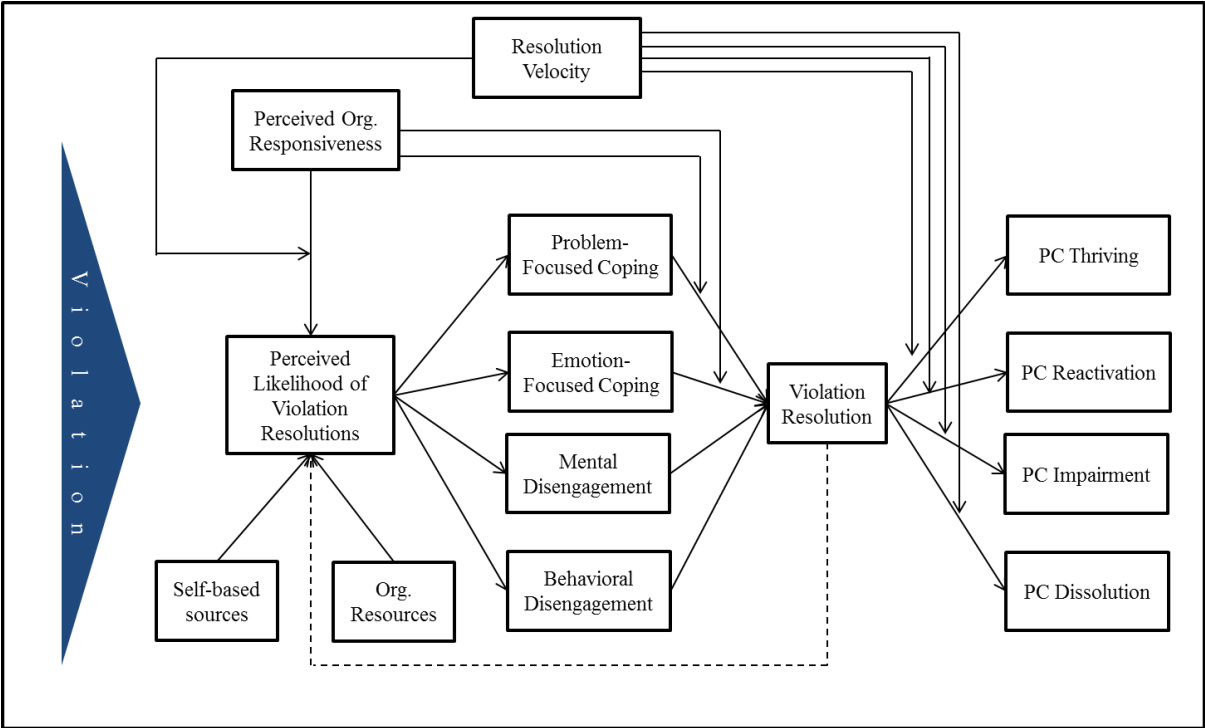
Figure 22. Post-violation Model. (Tomprou, Rousseau & Hansen; 2015, p 4)

Notes: PC= Psychological contract. Org.= Organisational

A pivotal part of Tomprou et al.'s (2015) model is the employee's beliefs relating to the probability of rectifying the PC as opposed to exiting the PC and the job. The model differentiates four possible outcome scenarios. These are, PC thriving, where a new PC results which is more favourable to the employee than the violated contract; PC reactivation, where the old PC contact is re-established and taken up as before; PC impairment where the new PC that is accepted is less favourable to the employee than their violated contract was; and PC dissolution where the employee is not able to accept the new PC and spends their time in a dissociated and dysfunctional state where they are perpetually in a state of violation.

In order to reach this end though, the employee must go through a set of self-regulatory systems that consists of two feedback loops which the authors describe as being similar to that of Carver and Scheier (1990, see section 2.1.3 for an outline) which helps the employee to monitor their present situation and the speed or velocity of their PC resolution. The extent to which the employee believes that the organisation is being responsive to their PC needs is postulated to be positively associated with the perceived likelihood that the employer will resolve the PC violation. Following this perceived likelihood that the PC can be resolved there are 4 differing coping strategies that employees can use to adjust their PCs and themselves to the new situation. Problem focused coping strategies (e.g., repairing the PC) and emotional focussed coping strategies (e.g., reducing negative emotions by attempting to re-evaluate the situation) are proposed to have a positive effect on violation resolution. Moreover, two less affective coping strategies are also included in the model. Employees may engage in mental disengagement (e.g., focusing on non-work themes) and behavioural disengagement (e.g., limiting one's contributions to the PC to redress the balance) which are thought likely to affect the violation resolution negatively (Tomprou, et al., 2015). Although this model is rather large and some of the links perhaps difficult to test, the model does seem to make sense. When adding in moderator variables such as the velocity of progress into the model their picture of what likely happens post-breach is more complete. Of course, this model still needs to be tested and would clearly benefit from longitudinal or experience sampling methodologies to capture the progress towards resolving a violated PC over time.

I will now briefly sum up this section before moving on to discuss the psychological contracts of vocational trainees. The empirical evidence pertaining to PC breaches suggests that breaches can have negative consequences for an employee's well-being, work attitudes and work motivation, and behaviours with the largest affects witnessed in the change in work attitudes (Zaoh et al., 2007). A recent model of post-violation (Tomprou, et al., 2015) proposed a model based on feedback loops, coping strategies and disengagement to explain how employees come to terms with a violated PC and go about building a new PC in the aftermath of a promise break.

The main bulk of the research on PC breaks and the outcomes of these breaks or violations is built on cross-sectional studies and, as with the PC content literature, has been criticised for its lack of longitudinal studies, making the link to causality difficult. Furthermore, the fact that PC research rarely measures breaches as single events but in a more general way, renders the results open to interpretation (Conway & Briner, 2005). Because of this there has been a call for more appropriate measurement techniques which can accommodate breaches as events in a changing process. These include such tools as experience sampling or daily diary methods (Conway & Briner, 2005).

4.8 Psychological contracts and Vocational trainees

In this section I turn my attention to the psychological contracts of vocational trainees. Here I focus on whether there are any aspects of the exchange relationship that may be of special pertinence to this demographic group. As outlined in the discourse (see chapter 3) dual system vocational trainees in Germany are apprentices who have on-the-job training as well as theory classes in vocational schools. Commonly this is the trainees' first foray into the world of formal employment. It is normal practice to have one vocational trainer from the firm who is responsible for the trainee and is their first port of call when problems or questions arise (c.f., BIBB, 2016). Literature relating to the PCs of vocational trainees is simply non-existent indicating a large research gap concerning these employees. Although there is a lack of literature relating to trainees as a PC holder, and training as a PC item, by looking at studies on new recruits' PCs and the PC during socialisation it is possible to make tentative inferences about this special group of employees.

4.8.1 Psychological Contracts and Training

One specific feature of the working days of vocational trainees is the emphasis on training. The three-years' of employment at the organisation are specifically designed to impart knowledge and practice so the trainees can gain the practical expertise that would equip them to carry out their chosen jobs unaided. A review of the scant PC literature with relevance to training at work is rather confusing. When it is mentioned, training is only discussed as one of a number of PC content items, and tends to be dealt with in a cursory manor (e.g., Herriot et al., 1997; Rousseau, 1990). Indeed those researchers who do mention training are not in agreement as to whether it should be regarded as a relational or transactional PC item, with no reasoning given for its categorisation as one or the other (c.f., Rousseau, 1990; Robinson & Rousseau, 1994; Janssens et al., 2003). Although it may not be necessary to categorise training in transactional or relational terms at all such an inconsistency in the literature indicates confusion toward training as a PC feature and in which theoretical box it belongs. For instance, Coyle-Shapiro and Kessler (2000) carried out a factor analysis of pre-determined PC items and found that training obligations loaded on a separate factor and not on a transitional or a transactional one. They had three items to encompass training obligations: 1) having the necessary training for the job; 2) having up-to-date training; 3) adequate support when learning new skills. It

seems that an in depth look needs to be taken at training in relation to PCs as the evidence so far is inconsistent.

Various features of training may be important to the PC exchange relationship between a trainee and their organisation that have been overlooked hitherto, including the quality and methods of the delivery of in-house training on the employer side and the standards of work performance and training outcomes that may be expected from trainees in return. It is clear that more investigation into the role that training can play in employee's PCs is needed. This dissertation attempts to go some way in addressing this research gap.

Due to the sparsity of research on training and PCs one way to better understand the situation of vocational trainees, is to turn to literature on socialisation at work and how PCs are formed at the start of a job. As vocational trainees are new to work they are not only being socialised into the particular job they are learning, but also into the world of employment as a whole. What follows is a brief review of literature relating to socialisation at work and PCs

4.8.2   Psychological Contract Development during Organisational Socialisation

First I will outline what is meant in occupational psychology by organisational socialisation. Organisational socialisation is the process of learning a cultural perspective in the sphere of the world of work or in a particular organisation. This means that the newcomer needs to learn the beliefs, company values and orientations, norms, ideologies and customs, and work behaviours and skills necessary to fulfil the new work role and to function effectively within an organisation's milieu. (Ashforth & Saks, 1996; Fisher, 1986; Van Maanen, 1976). Organisational socialisation is one way in which an organisation's culture is maintained.

Having defined organisational socialisation I will now move on to discuss the possible role of PCs in the socialisation process and what bearing this could have on vocational trainees. Rousseau (2001) suggested five phases which a new recruit may go through when their PC is developing (see Figure 23) and, as a new recruit, this framework can be applied to vocational trainees. Firstly, professional and societal beliefs are present before the recruitment phase which is the time when first promises are exchanged engendering the PC. Subsequently, and when the job actually begins, there is an early socialisation phase during which more promises are exchanged and the employee (or in our case the trainee) would seek information actively and receive information from the firm from a variety of sources. The next phase consists of later experiences where there is a more intermittent exchange of promises as the organisation reduces its active socialisation process. A last phase, and the one most studied, is the evaluation phase, which, according to Rousseau, is when any anomalies or discrepancies in what was promised and delivered is evaluated.

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Pre-employment	**Recruitment**	**Early Socialiasation**	**Later Experiences**	**Evaluation (Revision/ Violation)**
Professional norms	Active promise exchange	Continuing promise exchange	Intermittent promise exchange	Discrepant information leads to evaluation
		Active information seeking by workers/agents	Less active information seeking by workers/agents	Incentives/costs of change impact revision
Societal beliefs	Evaluation of signals by both firm and worker	Multiple sources of information from firm	Firm reduced its socialisation efforts	
			Changes often incorporate into existing psychological contract	

Figure 23. Phases in Psychological Contract Development, Adapted from Rousseau (2001, p. 512)

How long the individual stages are meant to last is not thematised in Rousseau's (2001) paper; however organisational socialisation is typically considered to last approximately one year from the start of recruitment (Wanous. Reichers & Malik, 1984). There are, however, definitions of organisational socialisation that indicate the completion of training as a prerequisite for the completion of the socialisation process; "*the process of 'learning the ropes,' being indoctrinated and trained, and being taught what is important in the organisation*" (Schein, 1968, p. 2). This would indicate that the vocational trainees, depending on definition, may not be fully socialised until the end of their training contracts which typically last three years. It seems more likely though, that the vocational trainees would reach the evaluation stage of the PC where breaches or discrepancies in the exchange relationship are noted and reacted to before the end of their training time. Research suggests that instances of PC breaches may be high at the start of a job. Robinson & Rousseau, (1994) found that 55% of employees report a breach in the first two years of employment. Indeed, Payne, Culbertson, Boswell and Barger (2008) also found evidence of opportunities for violation or fulfilment of a new recruit's PC even in the first three months of a job. Aside from queries regarding the timings of the phases, Rousseau's (2001) PC development model can be used as a useful starting point from which to view the PCs of trainees.

Socialisation in a company and the working world is a challenge. It is a stressful time filled with uncertainty about correct behaviour and a time when expectations are either met or not (Nelson &

Quick, 1991). This is also the time during which a worker's PCs are thought to develop (Rousseua, 1990). With work novices, it is speculated that they do not hold a schema yet, of what a PC should look like, and what terms if may or should contain (Sherman & Morley, 2015). It is likely, therefore, that new workers are more flexible than veteran workers in their PC and because of this are more open to change, and changes in their PCs as they develop over time (Rousseau, 2001; Thomas & Anderson, 1998). Novices' PCs are also likely to include fewer elements than veteran workers, having been newly formed (Sherman & Morley, 2015). Presumably, this is also the case for vocational trainees as they are new to work and we may expect to see flexible PCs with few exchange terms in this population.

The PCs of newcomers to an organisation are also likely to change over time as they develop from rudimentary schemas into fully fledged PCs. Thomas and Anderson (1998) studied the PCs of new recruits into the British army on their first day and then eight weeks later, and compared the newcomers PCs to those of longer-serving army personnel. They found that the new recruits' expectations of the army (i.e. expected employer obligations) increased over the eight weeks and that the new recruits' socialisation knowledge acquisition (knowledge of their own and the organisation's roles, social aspects and interpersonal support) was also associated with increased expectations in specific areas of their PCs. Overall the importance that newcomers placed on PC expectations increased over time, indicating that the PC becomes more important as a framework for the employment relationship as it develops. A last important finding from this study was that the changes in the newcomers' expectations of the army over time were in line with the longer-serving staffs' PCs. This shows that newcomers tend to bring their PC expectations in line with what is considered in the organisation to be 'normal' agreements. This study highlights the dynamic nature of the PC especially in the early socialisation period where rudimentary PCs develop into more realistic concrete constructs.

Sutton and Griffin (2004) studied the experiences of final year university students in Australia before graduation and then 14 months later after starting their first jobs. They found that the post-entry experiences of the new recruits and the amount of PC violations they reported experiencing were joint predictors of job-satisfaction. Although pre-entry expectations regarding what the job would be like also predicted job-satisfaction, this relationship was completely mediated by the experiences that the new professionals had after starting work. One critique of the PC as a construct has been that it may be too closely related to 'met expectations' (the extent to which pre-entry expectations are met on the job) perhaps making it a redundant concept (Guest, 1998). Sutton and Griffin's (2004) study, however, found that unmet expectations were not related to PC breaches and were not related to job-satisfaction after PC breaches were controlled. This indicates that even new recruits make a differentiation between met- or unmet expectations and PC breaches and that PC breaches is a useful construct for studying satisfaction at work in new workers.

As introduced in sections 4.7.2.5 and 4.7.3.1 Intention to quit or actually quitting a job has also been found to be linked to PC breaks (Robinson, 1996; Robinson & Rousseau 1998; 1994; Tekleab, 2005; Turnley & Feldman 1999; van der Vaart, et al., 2013). A large study carried out by the leading web-portal for vocational trainees in Germany found that of the trainees who quit their traineeships early, 29% of them did so because of interpersonal problems with their supervisors (Azubi.report, Ausbildung.de; 2014). Although the study did not look at PC breach per se, we know from previous research that PC violations do occur in the socialisation period. It is, therefore probable that some of these interpersonal problems that are reported may stem from broken promises on the part of the trainers and supervisors and be a cause of the young person breaking off their training. A study investigating the links between intending to quit or actually quitting a vocational training programme and breaks in vocational trainees' PCs is needed to test this theory as there are no studies which do this as yet.

A four wave study that concentrated on the experiences of Belgian new recruits starting jobs in telecommunications, electronics, consulting, and financial services looked at the way that they change and adapt their PCs over the socialisation period (de Vos et al., 2003). The results indicate that the new workers amend their perceived promises of employer contributions to align with the contributions that they receive from their employer over time. It seems then that they adjust their expectations in terms of promises to what is realistically available from the firm. In addition, they adapt the perceived promises they make to their employer, to be in line with their own delivered contributions as well as with what contributions they receive from their employer indicating the strong role of the norm of reciprocity in the PC exchange relationship even at early stages of an occupational career.

In a longitudinal study on newcomers and their job satisfaction in the first year of work Boswell, Shipp, Payne and Culbertson (2009) measured how socialised the newcomers were and how much they felt that the organisation had upheld its commitments to them. They found that there was a curvilinear pattern to the job satisfaction reported over the year. The job satisfaction was found to reach its highest point shortly after starting the new job and tended to decrease after that. This is described as a honeymoon followed by a hangover period. A surprising finding from this study was that this pattern of waning job satisfaction was more likely in those new recruits who were well socialised into the firm and whose firm upheld their PC commitments to them. This indicates that when starting a new job workers are likely to rate it highly against their old situation, whist this tapers off over time with the new job becoming more normal to them. The researchers point out the importance of longitudinal studies above and beyond a simple cross-sectional or time lag (T1-T2) approach. Without this approach the within-person differences in job satisfaction and its links to socialisation and psychological contract commitments would not have been revealed in this study.

Clearly, the PC plays a large role in the organisational socialisation of new staff, and is likely to play a large role for vocational trainees as they socialise into their new jobs and roles as workers. But how exactly is the PC formed in the first place? Where does a young person go for the information they need to socialise adequately into an organisation? I discuss this in the following section.

4.8.3 Information Seeking, Mentors, Supervisors and Role Models

In forming the PC, Sherman and Morley (2015) highlight two main avenues for its inception that are critical in the early stages of entry to the organisational. Firstly, the PC can be transmitted though organisational agents, such as supervisors, mentors and co-workers and secondly through Human Resource processes, such as handbooks, health and safety trainings and site tours. Early encounters with these two sources of information, help the new employee to develop their PC schema, which is then thought to develop over time (De Vos, et al. 2003). New workers are also active in forming their own PCs. Newcomers seek out the information they need to complete their PCs from organisational agents, and this search for information also changes over time. De Vos and Freese (2011) studied 280 newcomers and found that information seeking from co-workers, other newcomers and mentors relating to the PC decreased over the first year of employment, whilst information seeking from supervisors remained constant. Furthermore, the newcomers sought more information relating to the organisational contributions to the PC than the employees' contributions. Interestingly those newcomers who actively sought more information relating to their PCs rated their PCs as being more fulfilled three months later than those who did not actively seek PC information. Actively seeking PC information from organisational agents to complete the gaps in the exchange can therefore be seen as adaptive behaviour on the part of the vocational trainee. This tallies with organisational socialisation research that shows that proactive employees also socialise more quickly and effectively than reactive (passive) employees do (Finkelstein, Kulas, & Dages, 2003).

Firms often encourage new recruits to invest time into mentoring and training as they are important aspects of organisational socialisation (Kammeyer-Mueller & Wanberg, 2003). These are also likely to be key features of vocational trainees' PCs as the working relationship has training and the trainer in the foreground. Training and mentoring has also been found to be a possible reaction to an imbalanced PC. Payne et al. (2008) studied the balance of PC contracts in new workers and found that newcomers who felt that their PC was unbalanced in favour of the employer after three months of work were likely to have spent more time with an informal mentor than those with a balanced PC. Additionally, those newcomers with an imbalanced PC reported having spent more time in training than those with a balanced PC. An explanation given for the extra time invested in training and mentoring was to rectify the imbalance through the investing of time and effort on the part of the new employee (Payne et al., 2008). Again, this study suggests that even in the early stages of socialisation new recruits are aware of the agreements that have been made between them and their employer, and whether they are

considered to be a fair exchange of resources or not. For vocational trainees both training and a mentor (or trainer), are likely to be key resources of their working situations and their PCs.

Zagenczyk, Gibney, Kiewitz, & Restubog, (2009) also investigated the importance of organisational agents for employees' PCs. He found that workers with a role model, mentor or supportive supervisor were less likely to report a reduction in perceived organisational support after experiencing a PC breach, than employees without such a relationship. For Zagenczyk and colleagues a mentor works as a type of 'buffer' between the employer and their organisation, helping shape an employee's perceptions of a breach; suggesting why it happened, and helping the employee cope with the outcomes. Similarly in a three wave study on newcomers, Lapointe et al. (2013) found that commitment to a supervisor moderated the positive relationships between PC breach and turnover, and breach to emotional exhaustion. Newcomers who were highly committed to their supervisor reported a weaker reaction to PC breaches with less turnover intentions and emotional exhaustion than employees with lower commitment to their supervisors. Such results indicate that supervisors and mentors can affect employees' work experiences heavily, and that being highly committed to a supervisor may help newcomers to cope better with stressful events (such as PC breach).With vocational trainees, it is the norm that they have one trainer who is responsible for them, acting as a type of mentor. It is possible that this close dyad of trainer and trainee would also mediate a vocational trainee's affective reactions to PC breaches, if trainers offered support to their trainees as a mentor or supervisor would.

What is unclear in this vocational trainee and trainer constellation, however, is the extent to which they themselves would be seen to be acting on behalf of the organisation and make promises to the trainee. As a trainee's main reference person in the organisation, who was probably also involved in the interview and recruitment process, it is likely that the vocational trainees see their trainer as contributing heavily into their PCs (Shaw & Tetrick, 1994). This may result in a loss of the buffering effect that Zagenczeyk and colleagues (2009; 2014) describes, and a lowering of supervisor support in the case of a breach as the trainer may not be seen an impartial third party. Such questions highlight the need for further study on the PCs of vocational trainees.

4.8.4   Psychological Contracts, Tenure and Age

Two defining features differentiating vocational trainees from other workers are their relative youth and lack of tenure in the organisation. The PC they hold during training is likely to be their first PC and, as the normal training contracts last for no more than three years, the length of the PC exchange relationship is relatively short. So what impacts does age and tenure have on PC outcomes? I am not aware of any studies which focus on the age of younger workers in conjunction with their PCs so I turn to literature on age in general, or studies looking at older workers using the results to reflect on the possible implications for a younger generation of workers.

Firstly, a longitudinal study of sales staff by Conway and Coyle-Shapiro (2012) found that PC fulfilment and objective employee performance (sales made and sales targets met) were reciprocally associated with each other. Although this relationship was found to increase over the short duration of the study (15 months), the length of an employee's tenure was not found to moderate the relationship between PC fulfilment and employee performance although this was the hypothesised result as it was postulated that over time workers would become more effective at regulating their responses to breach. This unexpected result was attributed to the relatively long tenure of the participants in the study (43% had worked at the organisation for more than 10 years), with the researchers postulating that for newer recruits a moderator effect of the length of employment relationship may be more pronounced (Conway & Coyle-Shapiro, 2012).

In a very recent study Kraak, Lunardo, Herrbach & Durrieu (2017) investigated PCs in mature workers. They found that in older workers (those aged 45-55) there was a link between PC breaks and turnover intentions both directly and through feelings of violation. The authors conceptualised PCs as multidimensional with four dimensions of PCs being investigated. These are: job content, social atmosphere, organisational policies, and rewards. One interesting finding from this study relates to the feelings of identification as an older worker (e.g., I see myself belonging to the older workers) which was found to be a moderator. In the link between breaches in the PC dimensions of job content and social atmosphere, feelings of violation were less severe in employees with high older worker identification. Conversely in the link between PC breach in the dimension of policies feelings of violation were less severe in participants identifying themselves less strongly as belonging to the older workers. When interpreting these results Kraak et al. (2017) point out that the results support the premise that PCs are multidimensional and that a worker's own identity can moderate the feelings of violation which result from breached PCs. If this is the case in older workers, it would be interesting to investigate whether similar results would emerge in a sample of young workers. Would vocational trainees' identification with being a younger trainee worker moderate the links between the dimensions of between PC breaches and affective responses? And if so would this be different for different dimensions? It is likely that for younger workers the PC dimensions that would be more influential for them would differ from that of older workers but this would need to be empirically tested.

In a meta-analysis studying employee age as a moderator to PC breach and job attitudes, Bal, De Lange, Jansen and Van Der Velde (2008) reviewed 60 studies on PCs. They found that both employee trust and organisational commitment were negatively affected by PC breaches and that the age of employees moderated these relationships, with older workers reacting less strongly to breaches than younger workers. Surprisingly though, when looking at work satisfaction, the younger the worker, the weaker their negative reactions were found to be in response to PC breaches. One explanation given for this was that as job tasks get less varied over time, older workers may derive job satisfaction more

from the relationships with colleagues and supervisors whilst younger workers' satisfaction may stem from the actual work tasks that they complete. If this is the case, when facing a PC break, a younger workers' job satisfaction may be less negatively affected than an older workers, but they would lose some trust in their employer and become less committed. In line with Bal et al.'s (2008) meta-analysis, a recent study found age to be a moderator in the connection between PC breach and feelings of violation (Sharif, Wahab & Sarip, 2017). Younger workers reacted more negatively to PC breaks than older workers. They experienced more feelings of violation in the face of a PC breach than their more mature counterparts. It seems then that age does have an effect on the way that workers experience and deal with PC breaches.

Bal et al., (2008) also investigated organisational tenure. The results here were as expected: the longer an employer had been working at the organisation the less negatively their work satisfaction was affected by breaches. This also offers some empirical backing to Conway and Coyle-Shapiro's (2012) rejected hypothesis as Bal, et al.'s (2008) meta-analysis had a more representative tenure span. The results of this study imply that age and tenure are both separate factors in the way in which employees respond to PC breach. Judging from this analysis, vocational trainees as young workers who have not worked for the companies for long may differ in their reactions to breach than older workers or those who have been working at the organisation longer. Here again, due to mixed results, I see the need for further study, particularly in young working populations such as vocational trainees.

4.9   Summary

The psychological contract is a useful framework to use when studying an individual's working environment in terms of the exchange relationship they hold with their organisation. The content of the promises made between an organisation and their employee and whether these promises are fulfilled or nor, are likely to impact a number of affective, subjective and work related outcomes. Although a number of different categorisations for PC content have been suggested, with the distinction between transactional and relational contracts and balanced and unbalanced PCs dominating the research, it is likely that for specific jobs and groups of employees, differing PC content terms will be of importance.

There is no research pertaining to the PCs of vocational trainees so I have drawn parallels to this group from PC research into training, organisational socialisation, mentors and organisational agents, and in relation to the age and tenure of workers. In the special case of vocational trainees a main PC content term which is likely to be of importance, is training. When reviewing the literature however, there is uncertainty as to how to categorise training, with authors deeming it to be either relational or transitional in a seemingly cursory manner. This warrants further investigation. A further aspect of the PCs that may be of importance to vocational trainees is the closely supervised relationship that the trainee is likely to hold with their trainer. In this literature review I have relied on studies of mentors and supervisors at work to inform how the PCs of vocational trainees and reactions to breach may be

affected by such relationships but a more targeted approach is needed. In sum, a lack of research into the PCs of vocational trainees is apparent. Nevertheless, the PC may be a very useful framework by which to capture and explain the daily work experiences of vocational trainees and to investigate the outcomes of these experiences.

5 Personal Work Goals and the Psychological Contract's role in the Work Environment

5.1 Adolescence in Context: Goals and Psychological Contracts.

In the first chapters of this dissertation I reviewed the literature related to personal goals, with special foci on adolescent goal pursuit and the personal work goals of employees. Special attention was given to how these goals relate to individual's affective and cognitive well-being and work attitudes. It soon emerged that adolescence is an extremely important time for individuals with respect to their personal goals, as it is a time of identity formation, when goal decisions have the power to change an adolescent's life course for better or for worse and have an impact on daily well-being (Erikson, 1963; Nurmi, 2001; Shulman & Nurmi, 2010).

Vocational trainees in the German dual system have fascinating profiles from the motivational, developmental and organisational psychological perspectives. In Chapter three I outlined the vocational trainee system itself and highlighted acute problems within this system, including a very high turnover rate amongst the adolescents — one in four trainees quit their programme before the end. This is costly in terms of effort and in the monetary sense for both the trainees and the training firms. Vocational trainees are at a difficult juncture in their lives, encountering the challenges of emerging adulthood alongside the uncertainties of entering the world of work. Within this working world goals are also of importance. I reviewed the literature pertaining to goals at work and found that they impact strongly on employees' well-being and work attitudes. An individual's work setting with its constraints and opportunities for personal development, emerged as a critical environmental factor in the processes of making and pursuing personal work goals.

In chapter four I went on to describe a particular aspect of the work setting that has also been found to have an impact on individual's well-being and work attitudes: the psychological contract. This framework encapsulates a worker's exchange relationship with their organisation, encompassing promissory agreements that an organisation exchanges with its employees that are not included in the formal written contract. The implicit and explicit terms of PCs and the extent to which they were honoured or breached were found to influence the work attitudes and well-being of staff. PCs are thought to be a particularly useful framework to describe and explain the employment relationship between employee and employer in the early stages of a job, in the socialisation period. As vocational trainees are, by definition, still in the training stages of their chosen professions, the PC seems a logical and useful framework to use when investigating their experiences at work.

This fifth chapter of my thesis will discuss the possible links between the two main features of this investigation: vocational trainees' personal work goals and their psychological contracts and how these relate to the trainees' well-being and work attitudes. I then go on to present an overview of the design of the empirical studies that follow, introducing and justifying the mixed method approach that I use and placing the main variables within the context of the studies.

5.2 Personal Work Goals and the Work Environment: PC as a Contextual Feature

Adolescents do not strive for their goals in a vacuum. Their daily lives are influenced by their surroundings, with their goal choices and commitment to these goals being partly governed by features of their environments (Nurmi, 2004, 2008; Salmela-Aro, 2009, 2010). Models of goals in the occupational and motivational literature attempt to measure the individual in a contextualised way, acknowledging the role of social and environmental factors for the channelling, generation, and pursuit of personal goals.

Little (2000a, 2000b; 2006) developed a social ecological model (see figure 4 in chapter 2) which overarches his research into personal project pursuit. He points to dynamic and stable environmental and personal features as having an effect on a person's strivings and, subsequently their well-being and flourishing. In terms of the environmental context Little (2006) gives the example of more stable environmental features such as the work climate and the SES and dynamic contextual features such as personal contexts having both a direct impact on flourishing, as well as an indirect impact through an individuals' personal projects. He views the person's environment as a key factor in keeping goal pursuit active, with environments that do not provide impulses to spark continuous striving being described as problematic. Little (2006) states that;

> *"If a relationship, organization, or state cannot provide sustenance to the core projects and aspirations of people, both individually and collectively, then these contexts will lose their generative power and be at risk for displacement by other forces that may be only too happy to nurture the deepest aspirations of project pursuers."* (p. 44)

In short, environments devoid of nourishment for personal goals are not helpful and may eventually lead to the individual exiting that situation either in search of a more supportive environment, or simply to remove themselves from the dissatisfactory setting.

Similarly, in their The Social-Cognitive Career Theory of Work Satisfaction (see figure 15, Chapter three) Lent and Brown (2006) emphasise the roles of goal relevant environmental supports, work conditions, and resources and obstacles in the pursuit of work satisfaction. These contextual features are thought to influence on an individual's goal directed activities and their work-related well-being.

Lent and Brown (2006; study 1) found, for example, that progress towards work goals depends partly on the environmental support one receives for one's work-related goals. Here again, the more supportive and facilitative a situation is for goal pursuit, the more positive the outcomes are for the individual and their goal progress.

Taking the lead from such models, it seems logical that a vocational trainee's work environment is likely to have an impact upon their personal work goals. Goal progress and in turn well-being and work attitude outcomes are likely candidates to be effected by a supportive or unsupportive working environment. Therefore, it is important to investigate the working environment in which the trainees find themselves, in relation to their personal work goals. Indeed, if the work environment is not supportive to the trainees' goals, this may partially explain the large numbers of trainees dropping out of their training programmes before they are completed. After all, as Little (2006) points out, if a situation, in this case the trainee's work place, does not nourish the personal goals of an individual, they may move away from the non-nurturing context to seek one that does. In other words, a young person may break off their training if their work goals are not sustained and supported by their working environment.

This leads to the question of what constitutes a working environment that facilitates goal progress. Alongside features such as adequate time, social and organisational resources, and information, I propose a vocational trainee's PC as being one salient feature of the work context in which vocational trainees act. The PC encapsulates the promissory features of a trainee's work context which are likely to have a direct influence on their well-being (c.f., Zhao et al., 2007). It is likely that the content of the PC, and whether or not these promises are upheld, will impact on the young peoples' work-goal related activities. The trainees' PCs could either provide a pallet of opportunities or impose constraints to goal striving, thus impacting on the young peoples' well-being and work-attitudes. This is discussed in more detail in the next section.

Little (2006) stresses that it is imperative in goal strivings for both internal (e.g. goal commitment) and external systems (environment) to maintain their integrity and strength over the course of goal pursuit. For me, this integrity is more than an inert, unwavering stability that an environment offers as a foundation to build goals upon, it also encapsulates a certain aspect of morality. Other people are a part of the environmental landscape in which we move, and they too need to display moral integrity and behavioural consistency in order for the goal pursuer to be clear on the space and constraints within which they have to strive, and to be upheld in their pursuits. I propose the PC as a suitable conceptualisation to capture this space. By far the largest theme in PC research focuses on unpicking instances of lacking integrity in work relationships, i.e. breaches of the PC terms. A breach of a PC not only shakes the boundaries of the PC frame of reference itself, but also indicates an issue regarding the integrity of the relationship a trainee has with their PC partner, and, going a step further, the PC

partner's moral integrity. With this in mind, the PC may be a useful framework to use when investigating the working environment and their associations with personal work goals.

5.3 Opportunities and Constraints Provided by the PC for Personal Work Goals

When it comes to personal goals there is enough empirical evidence to support the notion that individuals who hold personal goals and personal work goals which they consider to be somehow unattainable will likely suffer negative consequences in terms of well-being, especially if they are highly committed to these goals (Maier & Brunstein, 2001; Brunstein, 1999; 1993). In these investigations attainability was conceptualised to include: 1) social support, 2) opportunity and, 3) control. From this standpoint, I propose that the psychological contract could be a contributing factor in how attainable a trainee finds their goals to be, and in this way, could have an impact on an individual's well-being. Let me take these three branches of attainability in turn.

Firstly, social support: the PC is a promissory agreement between two parties, the employee (in this case the vocational trainee) and their firm (or an agent of the firm). If agreements are made with their employer that suit the vocational trainee, and that support their personal work goals it is conceivable that the trainee would feel supported socially in their goals by their firm (or agent of the firm). For example, a trainee has the personal work goal to "*become an excellent baker*", and has been promised that their trainer will "*give useful feedback on their baking if they work hard*". If this agreement were honoured by both parties, the trainee may feel supported socially by their trainer, as a direct consequence of their PC promise. On the other hand, if the PC item were breached, and the employer or trainer gave little or no feedback on the trainee's baking, they may feel that there has been a lack of social support offered from their social contact at work, which may have a detrimental impact on the young person's well-being.

Secondly, and in a similar vein, a working environment with a PC that offered enough opportunity for pursuit of the personal work goal may also go some way in affecting the attainability of the goal. For instance, our trainee baker may have agreed upon the PC term that they would have plenty of time to practice baking bread. In reality, however, if the trainer reneged upon their promise and the trainee were only instructed to prepare the ovens and sweep the floor, the opportunity to be an excellent baker would be thwarted, reducing the goal attainability through the breaking of a PC item.

The third strand of attainability from a goal perspective is that of control. Control is also a feature of a PC as it is created partly through negotiations with the organisation, especially in the early stages of its formation. PCs are thought to offer employees a certain amount of control over their organisational lives, as they have been party to making the agreements within the contract. In addition, it is up to the individual as to judge whether or not they are delivering their own end of the deal (Shore & Tetrick, 1994a). Goal directed control may be displayed in the negotiation of PC items that would make

striving towards personal work goals easier for the vocational trainer. For instance, our trainee with the goal of becoming an excellent baker may negotiate the PC item "*to get as much time to practice baking as possible if I complete my work tasks*". This promise may or may not be honoured by the organisation, which may again have an impact on the amount of goal-related control the individual feels. If this promise were breached by the organisation, the trainee would be unable to practice baking, thus presumably lowering the control they have over their goal. Ultimately, the trainee would still have control over whether or not they wished to complete their work tasks in the future, but in this case this would mean a further distancing from their goal- a difficult decision for a young person to make.

5.4 Personal Goals from the Psychological Contract Perspective

As discussed above, contextual features of an individual's environment, such as how supportive a worker's organisation is to their personal work goals, have been included in models and research on personal goals. I propose the PC as a feature of the working environment that could have an impact on vocational trainees' personal work goals and associated well-being and work attitude outcomes. How, though, are individuals' goals viewed in the psychological contract research?

One way in which the PC has been linked to goal directed activity, is in discourse regarding how the contents of the PC affects outcomes. One view is that the PC provides goal structures, which in turn influence workers' behaviours (Conway & Briner, 2005). This explanation of outcomes postulates that the PC offers a framework in which an individual can structure their goals. Having such a framework can promote job performance and work attitudes. In this approach promises are seen as a type of goal or standard by which to measure behaviours and rewards (Conway & Briner, 2005; Shaw & Tetrick, 1994; Rousseau; 2001). The thinking here is that a promissory agreement, in the same way as a goal, has a gap between the present state of affairs and what is desired in the future. Similar to goals, an individual can actively direct their behaviours to close this gap, and reach the reward promised by the organisation in return.

I find this mixing of concepts by calling a PC promise a type of goal rather problematic. A promissory term made between two parties, is a different type of structure than an individual goal that is made by a single person as a reflection of their own wishes or desires. Furthermore, making a PC promise to an employee may be merely a tactical move in HR terms, for instance, to convince an applicant to join their organisation, rather than a competitor (Wanous, 1992) when having limited, or no intention of fulfilling the promise. This is very different to a goal, which is made with the intention of completing it. Finally (as discussed in chapter four), many PC terms are implicitly conveyed by an organisation with little input or control on the part of the employee. This is very different to self-set goals (especially personal goals) which are actively chosen and plans to achieve them actively made by the individual moulding them. It seems more helpful then to view the PC as an integral part of the

employment context and work environment that can influence an individual's goal attainability (e.g., through opportunities, control and social support) rather than confusing the constructs and classifying the PC items as goals themselves.

In a paper by Shaw and Tetrick (1994), an employee's employment goals were included in a model of how PCs may develop during recruitment and early employment (see Figure 24). In this model the individual is seen to develop their PC through information seeking, their thinking functions (e.g., interpreting intrinsic promises) and their employment goals.
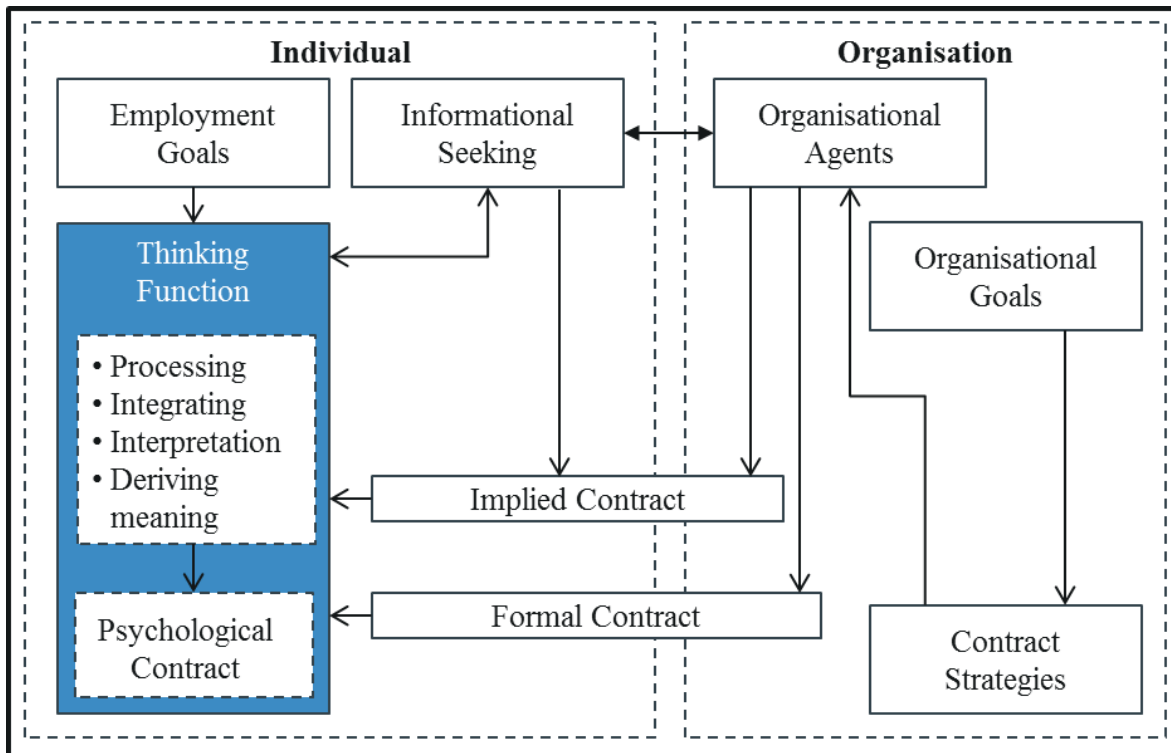
Figure 24. A schematic representation to show the role of employment goals in the development of the psychological contract. Adapted from Shaw and Tetrick (1994, p. 96).

The results of Shaw and Tetrick's (1994) study indicated that individual goals drive the development of the PC as an employee tries to seek out or identify information from their environment that is relevant to their goals. Shaw and Tetrick (1994) state that:

> *"The development of the psychological contract can be thought of as a deliberate goal-orientated process, in which an individual attempts to establish an agreement with their employing organization which will address a variety of employment objectives."* (p. 97)

This description of how an individual's goals could affect the development of a PC seems logical. As stated in the previous section, actively developing a PC to support an individual's personal work goals

would surely give the employee a certain amount of feelings of control over their PC as an environmental feature of the work goal setting. Nevertheless, this argumentation does imply that the organisation and the employee are on equal bargaining terms in making the PC, which is rather unlikely for those new to work, such as vocational trainees who would presumably be starting at the bottom of the work hierarchy.

Shaw and Tetrick (1994) only outline the specific impact that individual's employment goals have on the development of their PCs and not how these then are affected by, or affect their everyday working lives thereafter. According to personal goal theorists, an individual's goals are a permanent feature of our lives, guiding our everyday behaviours (Brunstein, 2000; Brunstein & Maier, 1996; Cantor, 1990; Emmons 1986; Klinger, 1977). Therefore, it is not plausible to imply through omission, that personal work goals will cease to be important under the framework of the PC after the PC has been developed. If employees are able to shape their PC to some extent to facilitate the striving towards their personal work goals, a breach in the PC would likely lead to negative feelings. These may not only be due to a lack of trust in the organisation and feelings of betrayal as breach theories suggest (Bal et al., 2008; Zaoh et al., 2007), but also because the striving towards a valued goal may have been thwarted through the lack of environmental opportunities now available to the trainee, making the breach relevant to the goal striving. This conceptualisation that the PC is a framework within an employee's work environment that can facilitate or impede work goal pursuit was also discussed earlier in this section.

In summary, my investigation into vocational trainees working experiences, approaches the PCs of trainees as an important aspect of their organisational environment that may have an impact on their well-being and work attitudes. This may be due, in part, to the way in which a PC may facilitate or hinder a trainees' progress towards their personal work goals.

5.5 Research Objectives and Approach, Study Aims and Design

5.5.1 Research Approach and Objectives

Within this thesis my approach is to study German vocational trainees within the situational, relational and individual aspects of their vocational training programmes by focusing on their personal work goals and psychological contracts. In this way, I tackle my first research objective which is a broad one: to shed light on the experiences that vocational trainees face within their dual-system training with a special focus on the work experience component of their training. I investigate how experiences at work affect the young peoples' subjective and domain specific well-being and their affective attitudes at their places of work, paying particular attention to the personal work goals and psychological contracts of the trainees.

Although vocational training is a very popular educational track to follow, with approximately half of each cohort in Germany entering a vocational training programme (EURYDICE, 2009), literature reviews of both personal work goals and the psychological contract revealed a lack of studies on this subset of workers (see chapters three and four). As personal goals are of high importance during the adolescent years (c.f., Shulman & Nurmi, 2010), and the period of socialisation a key time for the development of the PC (Rousseau, 1990), this lack of studies is surprising. There is also no empirical work that I am aware of, that brings together the aspects of personal work goals and the PC. With this dissertation, I attempt to go some way in filling this research gap.

The personal work goals of adolescents will play a central role in this research. I view these goals as a vital aspect of a trainee's individual path to a fulfilled work life. I approach the PCs of the trainees as a contextual aspect of the working environment that may directly affect their well-being and work attitudes, as well as having an impact on a trainee's personal work goals through the way in which it affects the attainability of the goals. With the following investigations my second research objective is to uncover any links that connect vocational trainees' personal features, work features such as the psychological contract, and personal work goals to certain well-being and work attitude outcomes. In addition I wish to investigate the indirect links between these situational and personal variables to the well-being and work attitude outcomes.

My proposed research framework is presented in Figure 25 which shows a schematic depiction of the key variables in the study and, extrapolated from the literature review, how these may relate to each other. When forming the framework model for the research studies I combined aspects of three models stemming from differing literature bases. Firstly, Lent and Brown's (2006) Social-Cognitive Career Theory of Work Satisfaction which highlights both the importance of contextual features of the working environment and goal related supports and obstacles in the pursuit of well-being at work (see chapter 3, figure 15). Secondly, Brunstein et al's (1999; Brunstein et al., 2007) Telenomic Goals Model of Subjective Well-Being which combines the features of goal commitment, progress and attainability (see Chapter 3, Figure 9). Finally, I referred much more generally to Little's (2000a; 2007) Social Ecological Model of Project Pursuit (Chapter 2, Figure 4), which highlights the role of individual and contextual features on goal related outcomes.

My third research objective is to address the critique of PC research, that it relies too heavily on cross-sectional questionnaire research and it needs to utilise more appropriate methodologies that can capture daily changes in the PC (c.f., Guest, 1998; Conway & Briner, 2009). Personal goal research has also benefitted from the use of more innovative methodologies however, never for the group that is under scrutiny here: vocational trainees. For these reasons, with this research I strive to apply appropriate methodologies to the goal and PC constructs and to investigate the work experience of vocational trainees from a variety of angles using a mixed methodological design. Mixed methods

research has been praised for its additional rigour and the extra validity and reliability that result from using a variety, rather than one single study method (Schreier & Odağ, 2010). Within my research I will call upon both qualitative and quantitative approaches which will bring the advantage of being able to investigate the phenomena, features and outcomes from a number of analytical standpoints and analysis levels. This will provide richer and more in depth coverage of the study variables than using a one-step approach would.
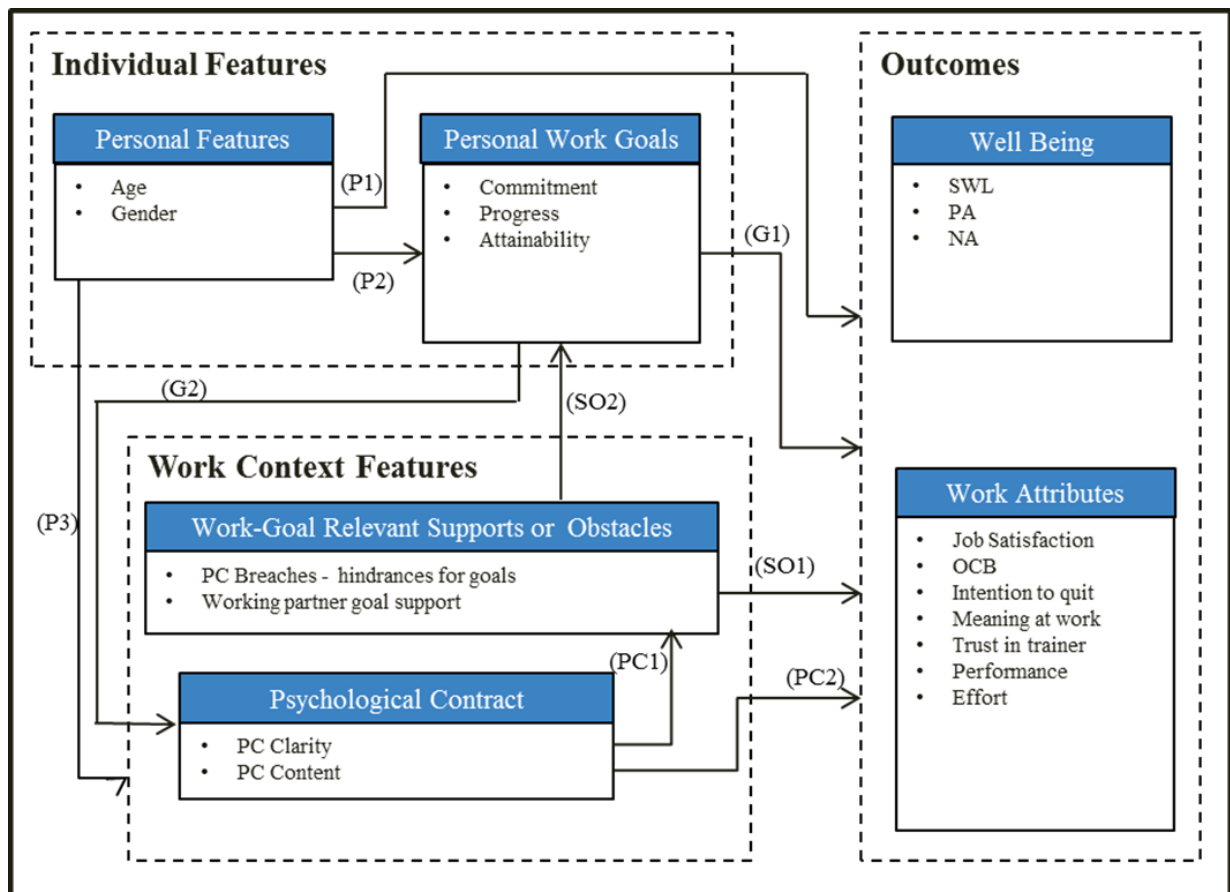
Figure 25. My Research Framework

Notes: P= Personal Features, G= Personal Work Goals, SO= Work-Goal Relevant Supports or Obstacles, PC= Psychological Contract.

To serve my third research objective I use three different study designs. Firstly, a qualitative interview design, secondly, a cross-sectional questionnaire design, and finally, a daily diary study (see Figure 26 for a schematic overview). This mix of methods has the advantage that I start with a detailed, individualised approach to investigating the vocational trainees' work environment using qualitative interviewing, before entering into a broader investigation of the variables in a much larger sample group in the cross-sectional study. Lastly, I can investigate the daily changes in the study variables from both a within-and between person perspective using a daily diary approach. The aims and design of the three individual studies are discussed in the following section.

To recap, using a mixed methodology approach opens a number of avenues for a researcher and offers a more comprehensive and rounded approach to an investigation than using a single shot approach (Bryman, 2008). I believe such an approach will allow me to cover my three research objectives thoroughly. Additionally, by employing a mix of qualitative and quantitative techniques, and a within- and between-persons approach to the analysis, I can cover more than one aspect of particular variables (for instance investigating both state and trait satisfaction levels). This specific type of data triangulation — a combination approach— has the advantage of including data from different places, times, persons and depth of analysis, which can then be compared to each other (Mayring, 2007).

5.5.2   Study Aims and Design

This research consists of three studies, each with their own aims and design. I will outline briefly each of the studies and present the aims of each one in turn. In Figure 26 below, I display the key focus and design approach for the three studies to aid orientation.

In study one presented in Chapter 6, I begin with an open investigation into the experiences of trainees in relation to their PCs. For this study I employ a qualitative interviewing technique to gain thorough and in-depth knowledge regarding specific experiences that young people have encountered in the vocational training organisation and to investigate how these impact on their working days. This study concentrates on the trainees' specific personal experiences of work and their overall views on being a vocational trainee whilst having a particular focus on the PC promises made to them by their vocational training firms. This investigation has two aims. Firstly, I want to unravel the nature and state of the PCs held by vocational trainees in the German dual-training system. Secondly, the results gleaned from this study will serve to form a basis for a measure of PCs specific to this subset of workers. This measure, the Psychological Contract Measure for Vocational Trainees (PsyCoVo) will be used in the proceeding study, study two.

In the second study I take a step back from the individualised focus of the interview study and take a more general look at what it is like to be a vocational trainee, by investigating the personal work goals and the PCs of a larger sample of trainees using a cross-sectional design. This study also investigates a number of well-being and work attitude outcomes that may be relevant to the young trainees' personal work goals and PCs. Background data about the vocational trainees will also be collected here about the vocational trainees to investigate whether demographic aspects such as age and gender, or work profile factors such as tenure or their opportunities at the start of the training, have an impact on the trainees' satisfaction and work-attitudes. The aims of this study are to provide a general overview of vocational trainees' personal work goals and psychological contracts, to investigate whether any aspects of these two constructs are of particular relevance to this group in terms of well-being outcomes, and to test the validity of the newly developed PsyCoVo, using factor analysis.

Study 1 Qualitative Interview Study	Study 2 Quantitative cross-sectional study	Study 3 Quantitative daily-diary study
Focus • Preliminary investigation into nature and state of vocational trainees' PCs • To inform the creation of a trainee PC measure	**Focus** • Broad quantitative investigation into vocational trainees' PCs and personal work goals, and their well-being and affective work attitude outcomes • To test PsyCoVo measure	**Focus** • Investigation into daily experiences of vocational trainees in the work setting • Investigation of daily PC breaches and personal work goal progress. • Investigation into PCs role in personal work goal progress
Approach • Individual level	**Approach** • Meta level	**Approach** • Multi-level within and between persons

Figure 26. An overview of the studies in this research project

The third and final study in my dissertation is a daily diary study which concentrates on the daily experiences of vocational trainees. The aim here is to pinpoint the inter- and intra-individual differences of aspects of the trainees' personal work goals and PCs. The focus of this study is the daily experiences of PC breach, and the daily striving for personal work goals and how these factors influence trainee's daily moods and work attitudes. One additional feature of this daily diary study is that the participants will also have participated in study two; the cross sectional study. This will offer further avenues for analysis of the cross-sectional variables, as the linking of data from study two and study three will be possible. This is an advantage which is enabled by my use of a mixed method design.

5.6   Summary

In this chapter I have presented the possible features that link the concepts of the psychological contract and personal work goals. These include the issues of goal attainability through facilitative or

non-facilitative PCs, social support from the employer, and the issue of control or a lack of control in forming goals and PCs.

Three overarching research objectives were outlined and discussed and the overall study framework was briefly presented (see figure 25). This highlighted the very important role social, environmental and personal factors at work are believed to have. These will be under investigation in the following studies.

I went on to outline the three studies that comprise this research paper (see Figure 26) and presented the aims of the individual studies. After outlining the research design of each study I went on to justify the use of mixed methods. In short, this is because I wish to paint a more complete picture of the experiences of adolescents in their training firms, by taking into account individual interview cases, a general overview, and daily experiences. This should go some way to making the analysis a rounded one.

In the three studies that follow this chapter I shall be looking at vocational trainees' overall well-being and flourishing using a combined approach. I investigate personal work goals as individualistic person-related reasons for well-being. The psychological contract is investigated which reflects the trainer-trainee relationship and a context-related reason for well-being which may foster or hinder the young people in their goal strivings. What are trainees' experiences of their psychological contracts? Can trainees make progress towards their strivings in a vocational training setting? How does this goal progress affect the adolescents' well-being? What role do promissory agreements from the trainers have in relation to strivings? Questions such as these will be tackled in the following empirical section of this paper.

6 Study 1: Interview Study

6.1 Introduction

In this first of three studies I concentrate on the experiences that vocational trainees have in their workplaces under the German dual vocational training system (see Figure 26 for an overview of the three studies). More specifically, I focus on discovering aspects of the exchange relationship known as the psychological contract that the vocational trainee holds with their company. Little research has been carried out into the psychological contract of trainees in the workplace (see chapter 4 for a discussion). This study serves as an introduction to this field, and is therefore exploratory in nature.

An overarching aim of the study is to uncover and explore the main features of vocational trainees' PCs including how the young people view and describe their exchange relationships. In this way I hope to expand the current knowledge base relating to the psychological contracts and working relationships of young workers, especially those in a training programme. The results from this interview study should expand our knowledge base relating to the occupational lives of young trainees in the workplace and could be applied to make practical recommendations for practitioners such as vocational trainers, supervisors of vocational trainees or HR practitioners and to highlight areas for further investigation.

Furthermore, my second aim with this study is to use the results emerging from the interviews to inform the next studies in this research row. In the proceeding studies two and three, the working lives of vocational trainees will be investigated quantitatively. In these studies vocational trainees' personal work goals, PCs and outcome measures will be investigated, but to do this, an empirical measurement tool to capture the PCs of trainees is needed. No PC measure to date caters specifically for trainee workers. The aim of this study is to use the interview data and results to develop a measure of vocational trainee's psychological contracts that can be used in the further studies.

With these two broad aims and the framework for the investigation in mind (see Figure 25) I formulated three main research questions. These are presented below. I used these to aid the development of the interview schedule and to structure the interviews and analysis.

Research Question 1: *What are the main features of German vocational trainees' psychological contracts?*

Research Question 2: *How do vocational trainees view the state of their psychological contracts?*

Research Question 3: *Which background or personal features of the vocational trainees are discussed in conjunction with their psychological contracts?*

As stated above this is an explorative study so a qualitative methodology was chosen that lends itself very well to a preliminary investigation of complex phenomenon (such as psychological contracts) because of its openness and flexibility (Rubin & Rubin, 2005). Moreover, due to the in depth but individualised approach to the analysis, interviews are regarded as being a suitable method for collecting experiential data from young people (Reinders, 2012). Ultimately, I decided to use a qualitative methodology for this first study, as I was interested in hearing and analysing the actual voices and the first-hand experiences of the vocational trainees. I also believe that the data resulting from such a qualitative approach is richer and fuller than data from a quantitative measure alone, and, as I hope to uncover features of the working environment of vocational trainees that have been overlooked in previous research papers, an interview approach seems appropriate.

6.2 Method

6.2.1 Participants

I recruited the participants for this study through posters and flyers which I distributed in seven vocational training schools specialising in teaching different job areas in the state of Lower Saxony in Germany. Participants were specifically sought to cover a range of different training jobs. The posters and flyers outlined the main study questions and indicated that remuneration for participation was also available for participants. Whilst distributing the flyers four trainees approached me directly to volunteer to take part in the study and the interview time, date and location was arranged immediately. The remaining six participants volunteered later using the email address given on the flyer.

The participants were 10 dual-system vocational trainees five of whom were female (see Table 10 for an overview). The sample represented a range of jobs with eight different jobs being represented in the areas of sales, service, technology, and health-care. The mean age of participants was 20 years and 6 months (SD 26 months). The participants were all in their first year of training. Three of the participants had migrated to Germany with their families whilst the remaining seven were German. All participants had attended full secondary schooling in Germany. The trainees were employed in a variety of firms, from small family-run businesses with only a handful of workers where they were the only trainee, to bigger firms with a large number of trainees. The participants received 20 Euros remuneration for participating in the study.

Before the start of the interview participants filled in an ethics form stating their willingness to take part in the interview study, and giving explicit permission for me to record their interviews and to use the resulting data in an anonymised way. Participants were also informed of their rights to withdraw from the study at any time and to refuse to answer any question they were uncomfortable with.

Table 10. Interview participants

Participant	Gender	Age (years and months)	Training Job	Interview length	Place of interview
A	M	19y 0m	Wholesale and foreign trade assistant	1hr 28min	Participant's home
B	M	19y 1m	Social Security worker	37min	Café
C	F	21y 7m	Bakery salesperson	56min	Participant's home
D	F	18y 11m	Bakery salesperson	59min	Participant's home
E	M	21y 3m	Electro-technician for machines and drives	45min	Participant's school
F	M	22y 3m	Electro-technician for machines and drives	49min	Participant's school
G	M	23 10m	Event manager	1hr 16min	Café
H	F	19y 5m	Retail salesperson	38min	Café
I	F	17y 6m	Medical assistant	35min	Participant's school
J	F	23y 7m	Dental assistant	51min	Participant's home

6.2.2 Interview Approach

I carried out all ten interviews to ensure a consistent interview technique was used for all participants. I used a semi-structured interview approach (Rubin & Rubin, 2005) and utilised an interview schedule (see Appendix 1) to cover enough depth and detail within the interviews whilst keeping the focus on the research questions. The interview schedule contained a standardised introduction which I read to each participant explaining the aims of the interview. There were 11 main questions and further follow-up questions and probes which were used if the participant needed prompting in expanding their answers. The interviews were designed to cover factual and background questions first and more in-depth questions later on in the interview when the participants were more likely to be at ease in the interview situation (Reinders, 2012). The interviews lasted an average of 53.4 minutes (SD 17.2) and were conducted in places chosen for their convenience for individual participants. These included the participant's homes, school meeting rooms, or public cafés near the participant's homes. The interviews were recorded using a digital recording device.

6.2.3   Strategy for Data Analysis

Before the data analysis stage, the digitally recorded interviews were transcribed word-for-word by two research assistants. The data were then analysed using a form of Qualitative Content Analysis as outlined by Mayring (2005, 2015). Qualitative Content Analysis is an approach of analysing interview material in a systematic, methodical and controlled way whilst avoiding overly quantifying the data (Mayring, 2015). The analysis technique emphasises a rule-based analysis, the coding of analytic units into a category system and the use of inter-subjective reliability measures such as inter-coder reliability. The end product of a Qualitative Content Analysis is a category system that exhibits the core themes of the interviews in a structured way. This category system is often hierarchical, reflecting different abstraction levels made up of main categories with lower order sub-categories and codes grouped into themes under the main category groups.

Within Qualitative Content Analysis the resulting category system can be a product of deductive or inductive analyses (Mayring, 2005). Deductive codes are deduced from the literature base or from the theoretical reasoning behind the study, whilst inductive codes emerge from the interview material itself, with no regard for theoretical underpinnings. The former technique is often used to add or compare to existing literature, whilst the latter is recommended for use when the focus is on revealing new findings (Grunschel, Patrzek & Fries, 2013). In this study, I took a combined approach utilising both deductive and inductive coding.

The interview data analysis was carried out in a series of steps by the author and a research assistant (see Figure 27). The first step was to select the interview material relevant to the research questions to reduce the amount of unnecessary material included in the analysis. Step two was to segment the interview material into analytical units. These units served as the basis of the analysis from this point onwards. Each analytical unit contained one theme or idea, so sentences or paragraphs with more than one theme were segmented. The smallest analytical unit was one word with the largest being several sentences. I revised the segmentation and selection of the data to ensure continuity over the ten interviews.

In the third step, the framework for the coding manual was created with information fields for the category, category definition, codes, code definition, code examples, frequency of the code and key words for the codes. Next, I used this framework to create the deductive codes stemming from the literature on psychological contract theories. A total of ten deductive categories were formed with 33 deductive codes under these.
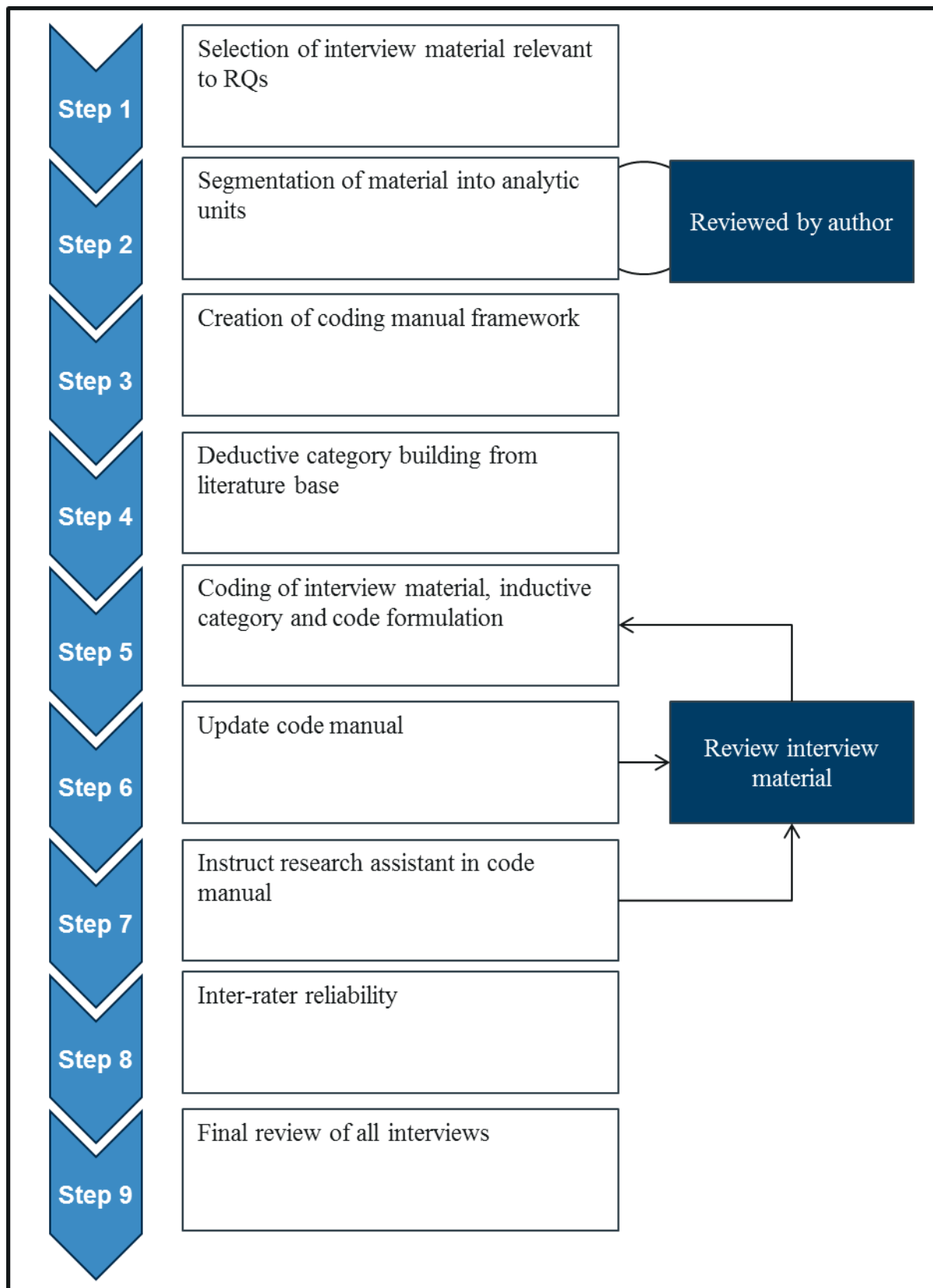
Figure 27. The qualitative analysis steps undertaken. Adapted from Mayring (2015, p. 86)

The fifth step was the first coding of the analytic units. At this stage I analysed six interviews using the deductive codes and also inductively developed categories and codes from the data. After coding the

first six interviews once, a sixth step was to review these interviews as the coding system had grown through the analysis process. I also updated the coding manual by adding six meta-categories to the coding system (step six). At this juncture a research assistant was thoroughly instructed on the contents of the category system (step seven) by reviewing the coded interviews together, and training the assistant on how to apply the coding manual to the further interviews. The research assistant and I then coded one interview together, ironing out any misunderstandings relating to the meanings of certain codes through discussions. The research assistant then went on to code two interviews that I had already coded and I carried out an inter-rater reliability check (see section 6.2.3.1).

Finally, in step nine, the research assistant coded the last three interviews. By this stage of the analysis very few inductive codes were emerging from the data. I carried out one last review of all of the interviews to ensure the additional few inductive codes were also included in the analysis of all of the interviews. At this stage I had to make very few adjustments to previously coded interviews and the analysis process was considered complete for the purposes of this study.

6.2.3.1   Reliability check

I checked the reliability of the category system and the coders by means of the two interviews that both coders had independently analysed. This constituted approximately 20% of the total study data, double the 10% recommended for a reliability check (Mayring, 2015). I carried out the inter-rater reliability test on the lowest code level rather than category level to ensure rigour. At the time of the reliability check a total of 113 codes were active. The results of this inter-rater reliability check for the two interviews on the lowest code level was excellent taking into account the number of codes (Cohen's multi-rater kappa $\kappa = .87$).

6.2.3.2   Language and the analysis

I interviewed the participants in German which is my second language, so participants were explicitly instructed to ask for clarification if the wording of a question was not clear. The transcription of the interviews was done in German, and included any inaccuracies in my language use — these were not corrected in the transcribing process to add transparency to the results. In the coding process I chose to use English category, code names and descriptions from the start, so as to eradicate possible translation issues in the reporting phase of this study. The transcribed interviews were not translated and I and the research assistant (who is German) carried out the analysis on the original German interview material. As a non-native German speaker it can be argued that I may have overlooked certain nuances which consequently may have been lost in the analysis process. I believe, however, for this analysis, which was based on themes rather than language use, my German language ability is proficient. In this report I have used a number of direct quotes from the interviews to illustrate the points and add validity to the analysis. I translated these into English and also present the original German text in accompanying footnotes.

6.2.3.3 Frequencies and number of contributors

To give a general indication of the salience of each code and category identified in the analysis two scores for each code were calculated. Firstly, the frequency, which is the total number of analytical segments over all interviews that contributed to each code. It must be noted, however, that this measure has its inaccuracies. It is highly dependent on how verbose participants are when discussing particular themes. If one particularly talkative participant discusses a topic for a long while, this will affect the frequency scores of the relevant codes hugely. For this reason following recommendations by Kuckartz (2012) and Silverman (2005) the number of trainees mentioning a particular code was also calculated to give an indication of the generalisability of each code to vocational trainers as a whole. This is perhaps a more reliable measure of code importance than the frequency data.

6.3 Findings

The data analysis yielded a category framework that consisted of seven meta-categories. These were named, *Typology*, *Psychological Contract Dimensions*, *Psychological Contract Framework, Background Factors, Psychological Contract Partners, Personal Reference Points for the Trainee* and *Subjective Characteristics of Job*[6]. In the level under these meta-categories I differentiated 24 categories, and, on the lowest abstraction level, there were 125 codes. In addition there was also a *rest* category that was used when an analysis unit was not clearly identifiable as belonging to another category or when the theme presented in the analytical unit lacked sufficient clarity to code it inductively. The resultant framework, reduced to the category level is displayed graphically in Figure 28. The category system to the code level will be presented in parts and in tabular form in the relevant findings sections.

In answering the three research questions addressed by the study I will focus on the codes and categories that were mentioned by the most vocational trainees. I will also highlight any codes and categories that I deemed to be of high enough importance to include in the psychological contract measure which I developed from the interview data (see section 6.6).

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[6] For the remainder of this report when referring to names of meta-categories, categories and codes I use italics to aid clarity.
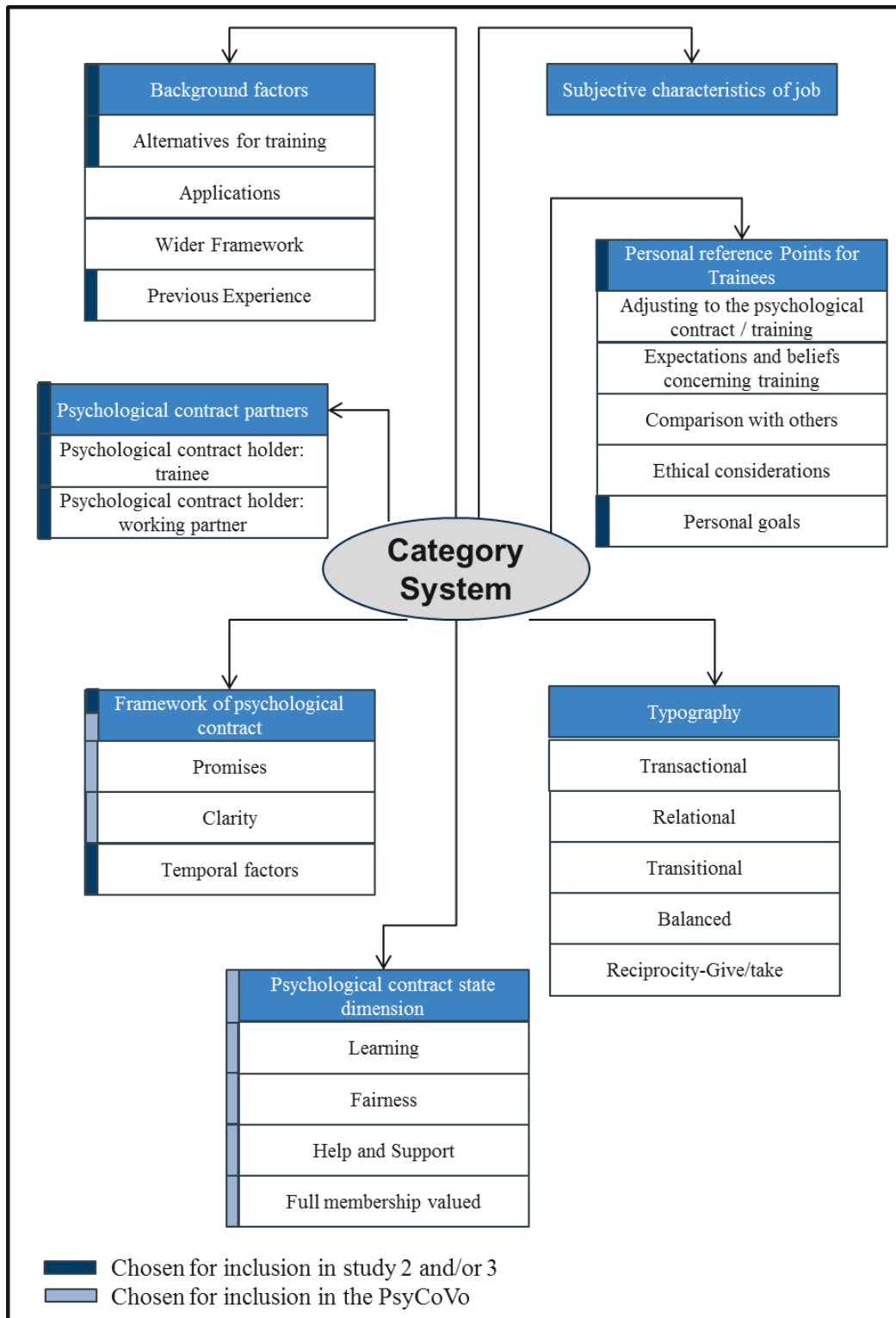
Figure 28. Graphical representation of the category system, reduced to the category level

Notes: categories and meta-categories marked in dark blue/grey were chosen examined in the quantitative studies 2 and 3 that follow, and those marked in light blue/grey were chosen for inclusion in the PsyCoVo scale (see section 6.6 for a description).

6.3.1 Findings: Research Question One

To answer the first research question, "What are the main features of German vocational trainees' psychological contacts?" three meta-categories are particularly salient; *PC Partners*, *Framework of the Psychological Contract*, and *Typology*. Under these meta-categories, there are ten categories with a total of 51 codes. This part of the category system is presented in Table 11 below.

Table 11. Meta-categories, categories and codes of the main features of German vocational trainee's psychological contracts including the number of trainees and analytical segments per code

MC	C	Co	n trainees contributing	n analytical segments
Psychological Contract Partners				
	PC holder: Working partner characteristics			
		PC partner	7	10
		Not PC partner	3	6
		Nice / satisfied with PC partner(s)	9	35
		Not nice / not satisfied with PC partner	7	19
		Respect for WP	3	4
		No respect for WP	3	6
		Strict	2	3
		Not strict	3	3
		Encouraging	4	7
		Not encouraging	1	1
		Young	5	5
		Old	3	6
	PC Holder: Vocational Trainee			
		Can't be bothered	3	5
		Try their best/dedicated	10	60
		Give to firm / expected of VT	9	23
Framework of the Psychological Contract				
	Promises			
		Promises made	7	18
		Promises kept	7	16
		Promises broken	2	4
		Lack of promises	4	6
	Clarity			
		Explicit	10	79
		Implicit	10	18
		Incomplete	6	18
	Temporal Factors			
		Fixed term	1	1
		Employed/taken on-promise	5	21

Table 11 Continued

MC	C	Co	n trainees contributing	n analytical segments
		Wish- taken on	6	10
		Wish – not taken on	5	9
		Unstable	4	12
		Leaving would disappoint WP or harm future learning.	1	1
		WP believes VT will stay on	5	8
		Planned future outside of this firm	4	10
Typology				
	Transactional- Rousseau			
		Money	10	32
		Specific duties	6	10
		Narrow duties	4	13
		Lack of involvement in the organisation	3	3
	Relational- Rousseau			
		Loyalty	0	0
		Protect/promote firm image	2	4
		Vocational trainee trust	1	1
		Working partner trust	2	2
		Participation in the organisation	0	0
	Balanced- Rousseau			
		Employability- external	0	0
		Employability- internal	0	0
		Dynamic performance	1	2
		Dynamic responsibility	0	0
	Transitional- Rousseau			
		VT Mistrust	1	4
		WP Mistrust	2	3
		Uncertainty	7	19
		Erosion	0	0
	Reciprocity / Give-take			
		Balanced reciprocity	4	10
		VT over-obligation	5	12
		VT under-obligation	3	4
		Redressing balance	4	11

Notes: MC = Meta category, C = category, Co = code, n of trainees = number of trainees reporting at least one statement per subcategory, n of analytical units = absolute number of analytical units per code. NB some codes have 0 participants and frequencies as they were deductively created. Codes in italics are deductive codes emerging from the literature base; codes in print are inductive codes. Total N=10

6.3.1.1 Psychological Contract Partner

Firstly, considering who the vocational trainees see as the PC partners in the deal is prudent (Meta-category: *PC Partners*). Under the category *PC holder: working partner characteristics* seven trainees considered their vocational trainee, or their direct boss to be responsible for them on a daily basis and therefore can be considered their main PC partner. Six trainees also mentioned who they did not consider their working partners to be; these included the vocational training management and heads of departments. The vocational trainees mainly identifying their trainers and supervisors as their PC partners is not surprising, as research has indicated that mentors and direct supervisors are a way in which PC terms can be transmitted, especially at the time of socialisation into an organisation (Shaw & Tetrick, 1994; De Vos, et al., 2009; De Vos & Freese, 2011).

The category of *PC holder: working partner characteristics* also yielded inductively driven codes relating to how the trainees viewed their PC partners. Nine participants reported having a PC partner who they considered to be *nice* and that they *were satisfied with* whilst seven interviewees mentioned working partners they considered to be *not nice* that they were *not satisfied with.* This overlap comes from some trainees discussing more than one PC partner. Further codes in this category related to the theme of respect. Three participants discussed having a certain amount of *respect for their working partner*, whilst, perhaps worryingly, three indicated having *no respect for their working partner.* This lack of respect seemed to stem mostly from age-related reasons. Participant G stated that a particular PC partner was too young and inexperienced for the training position she held (*young)*, whilst participant E stated that one of his working partners could not be taken seriously because of his old age (*old*), as illustrated in the following quote. "*He's, we make fun of him, but he is more like, um, how should I say it, yes, you can't take him seriously any more, I'd say. […] Because of the age.*"[7]

This pre-occupation with the age of the PC partner is a new finding and perhaps a specific issue to adolescent workers. Based on this result a practical recommendation for HR practitioners would be to ensure that their vocational training staff are of an age that the trainees are likely to respect, i.e. old enough to command authority, but not so old as to have lost connection with the young generation of trainees. This may help to create a more constructive working environment.

The other *PC partner* identified in this meta-category is of course the trainee themselves (*PC holder: Vocational Trainee).* All ten participants contributed to this category's codes which focus on the trainees' attitude towards their work and what they feel they give their firm. The largest code in this category was *try their best / dedicated* which was a high frequency code, containing 60 analytic units

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[7]E: Ja, der ist, ja der, wir machen auch so Späße mit ihm, aber er ist mehr so, ja, wie soll ich sagen, ja, man kann ihn nicht mehr so ernst nehmen, sag ich jetzt mal. […] Durch das Alter. (00:04:37).

to which all participants contributed. The interviewees reported trying hard to be good at their work and good team members, and to trying hard to fulfil all of their responsibilities. They report endeavouring to be dedicated workers. Trainee F, learning to be an electro-technician for instance states, "*I willingly get involved; I do exactly what I'm told to.*"[8]

This willingness to work hard for the firm is further thematised in the code, *give to the firm / expected of trainee* indicating what the vocational trainees believe to be their side of the psychological contract deal. Nine trainees contributed to this code, with analytical units indicating that the firms expected trainees to have a good attitude towards their work, and that the trainees delivered this. Specific items included being punctual, dedicated, fulfilling their responsibilities and having a good working attitude. Such a belief can be witnessed in a quote by participant B when he discusses what the firm expects of him:

> "*Yes, that I work thoroughly, and try hard [...] and show them, that I want to manage the training and, um, yes, that I don't just sit around and waste time, they want to see that I'm trying hard, and attempt to do everything right.*"[9]

Trainees also discussed direct promises they had made to the firm. An example from participant I, for instance is, "*that I'll be a bit more aware, I promised.*"[10] Such promises from the side of the employee of delivering good work, punctuality, having a good working attitude and being reliable are rather standard promises, often reported in the PC literature for other working groups (Dabos & Rousseau, 2004; Herriot, Manning & Kidd, 1997; Rousseau, 2000). In this respect vocational trainees do not seem to differ in their views of what they have promised and what is expected of them at work. For this reason the promises that the trainees make to their firm will not be focused on in the following quantitative studies, with the emphasis placed instead on what was promised to the trainees by their working partners.

6.3.1.2 Framework of the Psychological Contract

A further main feature of the PC deal of the trainees is the promises that are made to the trainees by their PC partners. The meta-category *Framework of the PC* contains three categories; *Promises*, *Clarity* and *Temporal factors*. *Promises* contains codes relating to the PC partners making, breaking and honouring promises. Clearly vocational trainees are aware that promises are made to them by their PC partners. Seven participants contributed to the deductive code *promises made* describing specific

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[8] F: ich engagiere mich gerne, ich mache das, was mir gesagt wird. (00:29:37-6).

[9] B: Ja, dass ich halt gründlich arbeite, äh […] und mich anstrenge und zeige halt, dass ich die Ausbildung schaffen möchte und, ähm, ja, dass ich halt nicht rumsitze und mir nur die Zeit vertreibe, sie wollen halt sehen, dass ich mich anstrenge und versuche, auch alles richtig zu machen. (00:16:13).

[10] I: Das ich'n bisschen aufmerksamer werde, habe ich versprochen. (00:19:01).

promises that constitute the terms of their PCs. Trainee I describes a promise made to her by the head of the doctor's surgery where she works: "*The boss said, for each person that we sign up, we'll get 1 Euro (laughs).*"[11]

The fact that the trainees can identify specific promises made to them and understand them as agreements is an interesting finding. This indicates that having a PC is a notion that these young workers may be able to identify with. As they are able to identify promissory agreements when being interviewed, answering a questionnaire regarding promises may also be a viable way of measuring trainees' PCs in larger scale studies. This is a promising finding in terms of the second aim of this study; to develop a PC questionnaire measure for trainees.

Further deductive codes under the *Promises* category are *Promises Kept* and *Promises Broken*. Seven participants contributed to *Promises Kept* naming instances where there PC partner had kept their word, delivering what they had agreed on, whilst only two trainees named promises that had been broken. In the following quote, participant G describes a broken promise regarding his role in organizing a large event.

> "*Although something else was promised to me before. I was, I was; at the beginning, when it all started with the fireworks competition, it was said, that part of it should be a project that I was personally responsible for […] and in the end I didn't select one single artist.*"[12]

The fact that only two participants (20% of the sample) mentioned broken promises is rather surprising as in the PC literature broken promises are reported more frequently in other population groups. For instance, Conway and Briner (2002) found 69% of their sample indicated a promise break in their two-week diary study, whilst Roberson and Rousseau (1994) found that 55% of newcomers had a promise made to them broken in the first two years of work.

This lack of broken promises could be due to a number of factors. Vocational trainee's PC partners may be especially careful not to promise terms they are not able to deliver, breaking fewer promises than in other working populations as a consequence. Alternatively, at the time of the interviews the trainees may not have been working long enough to evaluate whether the promises made had been fulfilled or not. According to Rousseau (2001), the evaluation time when a breach would be noted, starts in the last stage of the PC development (see Figure 23 in Chapter 4). Furthermore, in the interview it may have been difficult for participants to think of promises that were not honoured

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[11] I: Der Chef hat gesagt, für jede Person, die wir einschreiben, kriegen wir 1 Euro (lacht). (00:17:12-4)

[12] G: obwohl mir vorher was anderes versprochen wurde. Mir wurd, mir wurd ganz Anfang, als es los ging mit dem Feuerwerkswettbewerb wurde gesagt, dass es zum Teil nen eigenverantwortliches Projekt sein soll […] und im Endeffekt hab ich keinen einzigen Künstler ausgesucht. (00:18:43-8)

without the aid of a list of PC terms which would tend to be present in a questionnaire study. Although I used prompts to encourage fuller answers, these may not have been sufficient to elicit specific instances of broken promises. This main theme of promises being made, broken and kept will be investigated further in the quantitative studies that follow. I also chose it for inclusion in the scale which will be developed especially to measure vocational trainees' PCs.

The category *Clarity*, under the meta-category *Framework of the PC* describes how clearly the promises made to and by the trainees were imparted. The two largest codes here differentiate *Explicit* from *Implicit* promises and were deductively extracted from the literature. All participants contributed to both of these codes with explicit promises being mentioned more frequently than implicit ones. Explicit promises were the result of direct communication between trainees and their PC partners, with statements such as, "*that was said*"[13], and "*so, they said it directly to me when I had the interview with the Master craftsman*"[14] indicating this explicitness. Trainees also discussed implicit promises tending to describe their own promises and their end of the PC deal in such terms. Aspects such as the expected levels of politeness, effort and punctuality seem implicitly imparted, mainly through observations of others' behaviours. Trainee C, training to be a salesperson at a bakery gives this example, "*So I've seen that I always, um, have to be nice and friendly, even if the customer is very bitchy or just gets on my nerves.*"[15]

It seems then that PCs are imparted mostly through explicit promises in the period of vocational training, but that trainees partly learn the terms of their side of the PCs through implicit means. This differentiation between explicit or implicit imparting of PC terms has also been chosen to be included as a feature in the measure of trainees' PCs that will emerge from this investigation.

A further code under the category of *Clarity* is *Incomplete*. Although this is a relatively small code frequency wise, over half of the trainees contributed to the theme. Analytical units were coded as *Incomplete* it they indicated that part of the PC deal was somehow incompletely dealt with, e.g. left unsaid. This lack of information was reported in conjunction with a number of situation the trainees experienced negatively, such as the trainees having to take mid-term tests that were not disclosed at the beginning of training, or suddenly having to work split-shifts. The completeness of the PC deal has not been flagged as an issue in past research and is therefore considered a novel finding. The completeness or incompleteness of trainees' PCs will be investigated further in study two that is reported in the following chapters of this thesis (see Chapter 7 for more details).

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[13] B: Ja, das wurde so gesagt. (00:15:07)

[14] F: Also mir wurde direkt gesagt, als ich das Bewerbungsgespräch hatte mit dem Meister (00:08:52)

[15] C: Also ich hab gesehen, dass ich immer, äh, nett und freundlich sein muss, auch wenn die Kunden sehr zickig oder mal so auf die Nerven gehen. (00:15:43).

A PC feature that was found to be important to the trainees, concerns the expected duration of the exchange relationship (*Temporal Factors*). A relatively large code in this category is *Employed / Taken on Promise* which half of the trainees contributed to. It is clear from this code that although the vocational training programme spans three years, many of the trainees had been promised employment after the completion of the training, some dependent on specific conditions, e.g., that they pass their exams with a high enough grade, that they work well, or that employment will be on a short-term contract. Trainee B states, for instance: "*Yes, that was said to us, that if we pass our training with at least a three, then we'll be taken on for at least one year.*"[16] For some of the trainees, such as Trainee F, this PC term of a conditional employment offer also seems to motivate the trainees to work well: "*And yes, if I keep on trying, the way my Meister says I am now, I'll be taken on, so, I've already got that agreement.*"[17]

Being taken on after the end of the training period seems an important issue for vocational trainees as continuing with the training firm could mark a seamless entry into full employment. Indeed, six trainees wanted to work at their training firms after they had qualified (*wish taken on*), whilst five, for various reasons, did not (*wish- not taken on*) (Participant I contributed to both codes being unsure). Interestingly, both bakery sales trainees (participants C and D) contributed to this latter code, neither wanted to continue working in their current bakery— both being unhappy about their working situations. Moreover, four trainees believed their training situations were somehow precarious or *Unstable*. Reasons for this were that participants A, D and C had seen others fired on the spot, given warnings or storming out of their training position after disagreements with management and believed this could happen to them. Participant E believed his training firm was in an unstable economic position: "*I don't know either, if the firm will last much longer. […] So, I hope that I can finish my training there.*"[18] Three of the four trainees who contributed to the *unstable* code were not interested in continuing the exchange relationship after they had finished their training. Perhaps it is partly this perceived instability which made the firm undesirable to the trainees.

Further findings regarding the *Temporal Focus of the PCs* is that five of the PC partners believed the trainees will stay on at the training firms when their training is complete (*Working Partner Believes Vocational Trainee will Stay on*), and four trainees had concrete plans for leaving the firm (*Planned Future Outside of this Firm*). Two of the trainees (A and I) contributed to both of these codes,

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[16] B: Ja, das wurde uns halt auch gesagt, dass wenn wir unsere Ausbildung mindesten mit ner` 3 abschließen, dann werden wir auch für mindestens 1 Jahr auch übernommen. (00:21:21).

[17] F: Und, ja, wenn ich mich weiter so anstrenge, wie ich's nach dem Reden von meinem Meister tue, werde ich auch übernommen, also diese Zusage habe ich jetzt schon gekriegt. (00:05:50).

[18] E: Ich weiß auch nicht, ob der Betrieb noch lange macht. […]Also, ich hoff mal, dass ich meine Ausbildung da noch beenden kann. (00:31:30).

meaning that they had definite plans to leave the firm but their PC partner was expecting them to stay on. This deception is fascinating as, although in the literature the PC is sometimes referred to as a tool which HR managers can manipulate by promising terms that they are not actually planning to honour (Morrison & Roberson, 1997; Roberson & Morrison, 2000) this managing of the PC from the employee's side has not been reported. In the cases of participants A and I, withholding this information knowing that the PC partner believes something different can be interpreted as a plan to break an intrinsic promise made to their PC partner. They also believe that their PC partner will be react negatively to the news (*leaving would disappoint WP or harm future learning*). This is exemplified in the following extract from participant I (N.B., in this and in further extracts, I indicate a separation of analytic units and codes with square brackets containing the respective code name).

> *Um, I think my boss would certainly be a bit offended, if I told him, I don't want to… in the pr*[*actice*]*… so, after I'm qualified,* [leaving would disappoint WP or harm future learning] *... because I really think, that he is counting on it, that I'm going to stay there after my training* [working partner believes vocational trainee will stay on]"[19].

As the temporal factors of the PCs of the trainers emerged from the interview data as a discussion point for the participants, I will include questions relating to whether a promise has been made to the trainees regarding further employment, and whether the trainee wishes to be taken on in the quantitative study (study 2) presented in chapter 7.

6.3.1.3 Typologies

I now move on to discuss the results relating to the deductive categories of relational, transactional, transitional and balanced PCs, stemming from Rousseau's (1990; 1995; 2000) classification of PCs. One of Rousseau's distinctions between different PC types is how long-or short-term the PCs are (see Figure 20, chapter 4). As the temporal focus of the PC seemed to be a major area of pre-occupation for some trainees, I grouped the results related to temporal focus together into one category, rather than splitting them over the four categories of Rousseau's Typology. Arranging the temporal factor codes according to Rousseau would also have been problematic as two of her PC types have a long-term focus (relational; balanced), whilst two have a short-time focus (transactional; transitional) and codes should be exclusive to one category. It can, however, be argued, that the category *temporal factors* could have been placed under the main-category of *Typology*.

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[19] I: Ah, ich glaub, mein Chef wär schon'n bisschen beleidigt, wenn ich sagen möchte, ich will nicht mehr in der Pr..., also nach meinem Abschluss…weil ich glaube schon, dass er sich darauf verlässt, dass ich nach meiner Ausbildung da bleibe. (00:21:50).

As stated above, four deductive categories emerged from the PC literature relating to Rousseau's (1990; 1995; 2000) classification of PCs into *transactional*, *relational*, *transitional* and *balanced* types. These four categories were included in the analysis under the meta-category *Typology* to investigate whether this may be an appropriate way to view the features of vocational trainees' PCs. Interestingly, these four categories were underrepresented in both numbers of participants contributing to the codes and the number of analytical units included in the codes, with the *transitional* category being the only one with any substantial content. This finding leads me to believe that the classifications made by Rousseau are not altogether applicable to these trainees, with features not covered by Rousseau's classification perhaps being more important to the trainees, but with the trainees PCs being slightly orientated towards the transactional end of Rousseau's Typology.

In the *transactional* category the largest code was *money* with all ten of the participants discussing money and economic exchange within their interviews at some point, but some only mentioned it in one utterance directly asking a prompt. Of those who gave their opinions about the economic exchange in the training situation, participants B and G state that the money they received was appropriate whilst E, C, and J believe they are not paid enough using terms such as "*crap pay* [20]", "*a bit low*"[21], and "*too little*"[22] respectively. Six trainees also contributed to the code of "*specific duties*" whilst four contributed to "*narrow duties*" suggesting that the daily duties of vocational trainees may be rather limited. This code was only discussed in any depth by trainee G, who feels that the narrow duties he is given are limiting:

> "*With that it's, um, with that limits, so, it limits you then, or it shows you, that it, that your own area of influence is very limited.* […] *So, you have the feeling again that it doesn't go over and above making coffee.*"[23]

To recap, it seems that for vocational trainees the segregation of their PCs into transactional, relational, transitional, and balanced types is not as appropriate as was expected from the extensive literature base. For those trainees interviewed, only *transitional* aspects of their PCs were touched upon in any significant way, with *money* being the largest code (although still relatively small) in this category. This finding is surprising as even this meta-category's codes relating to trust and mistrust within the PC relationship were hardly touched upon by trainees although Guest (2004b) also

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[20] E: … miese Bezahlung. (00:21:21)

[21] C: …'n bisschen wenig. (00:26:20)

[22] J: … zu wenig. (00:04:47)

[23] G: Damit ist es, ähm, damit beschränkt, also, beschränkt es sich dann oder wird einem gezeigt, dass es, dass der eigene Wirkungsbereich sehr beschränkt ist. […]Also, da hat man wieder das Gefühl, dass es über Kaffeekochen nicht hinaus geht. (00:08:52)

identifies trust as an important PC state (see Figure 21 in Chapter 4). As the codes relating to Rousseau's classification are so small, these will not be included in the quantitative investigations which follow this study. Rather the focus will be given to other categories that seem more relevant to the participant group.

The final deductive category in the main-category of *Typology* is *reciprocity /give – take* relates to notion of the reciprocal balance between the PC partners (c.f., De Cuyper, 2008; Shaw & Barksdale, 1998; Tsui et al., 1997) (see 4.5.2 for an overview). Similar to the categories created around Rousseau's (1990; 1995; 2000) framework, this category is relatively small. Nevertheless, the trainees did discuss the balance in the PC deal to a limited extent. Four trainees contributed to the code of *balanced reciprocity* —they felt the deal they had with their working partner was balanced. Participant A, outlines the balance of his PC very insightfully:

> "*Yes, that's always like a mutual story. I find, when the firm offers me this and that, then it should also get from me what it wants [...] and that's sometimes more and sometimes less. Different every day. I think that, looking over the year, that neither came up short.*"[24]

When looking at the codes related to imbalance, five trainees contributed to the code of *trainee over-obligation* whilst only two trainees mentioned being under obligated in their PCs (*trainee under-obligation*). Trainees experienced over-obligation by extending extra effort and working extra hours for no pay or recognition. Participants B and F experienced under-obligation, not feeling able to give the firm the equivalent of what they were given, as they were not yet qualified enough to contribute to that extent. Four trainees also discussed redressing the balance of their PC in some way (*redressing balance*). Participants C and F both redressed under-obligation by working harder, and F plans to repay the firm when he is qualified, having been promised employment. In his words, "*But, I hope naturally, somehow, for myself, that, when I'm qualified, that I can give the firm back what they deserve [...] as a good fellow of the guild.*"[25]. Conversely, trainees D and G redress their PC balance by intentionally working less—doing the absolute minimum. G, describes his actions after he was given too many tasks to do which he believed were unrelated to his training.

> "*Yes, so I saw, I was only being sent around the houses, so, with the car, sent around the houses and should, um, no idea, do things nothing to do with my training the whole time. So I*

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[24]A: Ja, das ist immer so eine gegenseitige Geschichte. Ich finde, wenn der Betrieb mir das und das bietet, dann soll er auch von mir das bekommen, was er verlangt […] und das ist halt mal mehr und mal weniger. Jeden Tag unterschiedlich. Ich denke so über das Jahr jetzt betrachtet ist da keiner zu kurz gekommen. (1:17:58)

[25] F: Aber, ich hoffe natürlich irgendwo für mich selber, dass, wenn ich dann ausgelernt bin, dass ich der Firma dann Dementsprechendes zurückgeben kann […] als guter Geselle. (00:42:30)

then, at some point, I had a very resigned attitude towards it, and then, when I had to be at work at half, or nine, then I was there at nine, but then I had breakfast at my desk and I approached everything much more relaxed, but always so that they couldn't say, 'hey that was bad what you're doing'"[26].

The findings from this relatively small category are interesting as those trainees who contribute to it seem to have a deep understanding of the reciprocal nature of the exchange balance. The fact the trainees can describe exactly how they act to rebalance the exchange indicates that they are very aware of their own and the firm's contributions even at this early stage of their working careers. From these findings it seems that the concept of reciprocal balance in PCs (De Cuyper, 2008; Tsui et al., 1997) and redressing any imbalance (Shaw and Barksdale, 1998) can, at least in some cases, be applied to vocational trainees. The relatively small size of this category, however, indicates that this balance would not be relevant to all trainees and therefore it will not be pursued further in the quantitative studies that follow.

6.3.1.4   Summary: Research Question 1

In sum, when answering the first research question a lot can be gleaned about the features of vocational trainees' PCs from the ten interviewees. The data reveals the importance of the trainees' PC partners, (who in most cases is the trainee's trainer or boss), and that they serve an important role as communicators of the young workers' responsibilities. The trainees often commented on the PC partners' characteristics frequently discussing themes such as respect, their PC partner's age, and how satisfied they were with them.

When it comes to promises and the terms of the PCs the trainees were able to clearly articulate what the PC partner has explicitly and implicitly promised them, whether these have been upheld or not, alongside their own roles in the PC, including what they believe they owe the firm. All interviewees stated that they tried their best within their training and that this was a minimum requirement expected of them. The specific promises made to and by the trainees did not differ much from promises reported by other groups of workers in previous studies (c.f., Herriot et al., 1997; de Vos et al., 2003; Tekleab & Taylor, 2003; Janssens, 2003). Nevertheless this interview study reveals that the young workers

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[26] G: Ja, also ich hab gesehen, ich werde hier nur noch mit'm Auto durch die Gegend, also mit'm Auto durch die Gegend geschickt und, ähm, soll, ja keine Ahnung, ganze Zeit ausbildungsfremde Dinge machen. Da hab ich dann auch irgendwann hat ich ne' sehr resignative Einstellung dazu, und bin dann eben, also wenn ich um halb oder um neun Uhr bei der Arbeit sein musste, war ich dann neun Uhr da, aber gefrühstückt hat ich dann an meinem Schreibtisch und also ich bin alles sehr viel relaxter angegangen, aber immer noch so, nicht so, dass man, dass man sagen könnte, "ey, das, das war böse, was du machst". (00:26:26-2)

seem to have a well-developed schema concerning what their PCs involve. They are able to discuss their own and their PC partners' contributions in a reflected manner.

A further major result emerging from this research question is that Rousseau's (1990; 1995; 2000) framework of transactional-relational contracts is not particularly suitable for this group of workers, as the codes deductively extracted from the literature were not applicable to the vocational trainees, with other codes and categories being much larger. Although money, a feature of transactional PCs, was discussed by all trainees, I did not identify this as being a major theme as participants talked of money in a rather cursory way, perhaps as the tariffs for all trainees are standardised and set by an external body (the relevant guilds) rather than the firms themselves. The only aspect associated with Rousseau's framework relevant to the trainees was found to be the temporal extension of the PCs, with all participants commenting on their wish to either stay on or leave their firms once they were qualified, with half of the interviewees stating that they had already had conditional employment offers.

6.3.2 Findings: Research Question Two

The results of research question one indicate that traditional Typologies of the psychological contract such as Rousseau's (1995; 1998; 2000) and Shaw and Barksdale's (1998) are unlikely to reflect the most important aspects of vocational trainees' PCs. Other issues are therefore likely to be more salient for the trainees. Guest (2004a; 2004b), for instance, put forward the state of the psychological contract as being an important area of further study (see Figure 21). By the state of the PC Gust refers to a larger frame of reference, moving away from the PC content to consider issues central to work such as fairness and trust. With research question two, I follow Guest's advice, by investigating how the vocational trainees describe and view the state of their PC employment deals with the hope of revealing PC issues particularly pertinent for this group of workers.

To answer the study's second research question: "how do vocational trainees view the state of their psychological contracts?" I will describe the meta-category of *psychological contract state dimensions* which I identified from the category system as being relevant to issues of PC state. Under this meta-category there are four categories reflecting different PC states which I will describe in turn; *Learning and Teaching*, *Help and Support, Valued Full Member of the Workforce* and *Fairness.* These cover a total of 21 codes (see Table 12). All of the codes and categories in this meta-category emerged inductively from the interview data.

Table 12. Meta-categories, categories and codes regarding the state of German vocational trainees' psychological contracts including the number of trainees and analytical segments per code

MC C Co	n trainees contributing	n analytical segments
Psychological Contract State dimensions		
Learning and teaching		
Learning by doing	10	42
Mistakes as learning process	8	27
Mistakes not tolerated	2	8
Learning vocational trainer's responsibility	10	35
Learning working partner's responsibility	1	1
Learning centred	9	44
Minimum learning	6	33
Testing	6	12
Checking	6	14
Praise / reward	6	15
Help and Support		
Help	10	24
Continuing Support	8	30
No Continuing Support	5	12
Well-being supported	9	25
Well-being not supported	5	13
Valued Full Member of Workforce		
Not a full member of workplace	10	34
Full member of the workplace	5	14
Integral/ indispensable member of the workplace	5	8
Taking a stand against the firm	4	17
Fairness		
Fair	10	85
Unfair	7	71

Note: Codes in Italics are deductive codes emerging from the literature base, codes in print are inductive codes. *N*=10

6.3.2.1   Learning and Teaching

The first category of *Learning and Teaching* is particularly salient for the vocational trainees. This category includes ten codes relating to how orientated towards the trainees' on-the-job learning and teaching they reported their PCs to be. I placed this category under the meta-category *Psychological Contract State Dimensions* as I felt that the codes reflected a PC state of being (or not being) learning and teaching orientated. Two large codes within this category are *learning centred* with nine contributors and *minimum learning* with six contributors. These two opposite codes reflect the extent to which the trainees' PCs emphasise a state of continued learning. Most interviewees stated at one

point that their PCs focused on them learning their training job. This emphasis on learning emerged as the main focus of many of the trainees' daily exchanges. Such utterances were included in the code *learning centred*; for instance, participant A describes being offered training: "*Training sessions are offered. That's really nice. We can decide to do a training session two to three times a year or something.*[27]"

The interviewees reported that daily exchanges with PC partners were often directed towards the trainees' learning, which convey learning as a key feature of what is expected of the trainees. Participant A indicates that learning in his firm is automatic, being integrated into his everyday tasks. He also explains the open way that his questions are dealt with.

> *"And in the firm, the daily tasks are taught to you, and if then that works in principle, completely automatically, and then when I've got a question or can't do something or get stuck, then I ask one of the other workers, and then they do it or explain it to me again.*"[28]

The opposite of *learning centred* is *minimum learning* encapsulating a low PC focus on learning. Six vocational trainees stated that the minimum was done to encourage them to learn new skills relevant to the job with most analytic units here generated by four participants (C, D, F and G). Trainee C, for instance, wishes that there was more focus on learning in her bakery: "*But I find, I want more, so I would really like to learn more, so, that I would be shown things, how they, so that, that is missing too a bit, that they would show me.*[29]" Trainee G also feels that his firm put little thought into his learning: "*How you were sometimes placed, it was just like, 'here is a task, it has to be done, we don't know if it has a learn effect'. So there was not much thought wasted on it, I had the feeling.*[30]"

This state of minimum learning was found to be a major point of frustration for the four trainees who contributed the most to this code. Of the four trainees C, D, and G are also amongst those who do not wish to work for their current firms when qualified. This lack of interest in teaching the vocational

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[27] A: Schulungen werden angeboten. Das ist ganz schön. Wir können Schulungen in Anspruch nehmen. Ich glaube zwei bis dreimal im Jahr ist so was. (00:49:35)

[28] A: Und im Betrieb die Tätigkeiten werden einem beigebracht, und wenn, dann funktioniert das schon im Prinzip ganz automatisch und wenn ich dann mal eine Frage habe oder etwas nicht kann oder einen Hänger habe, dann frage ich halt einen von den Mitarbeitern und dann machen die das oder erklären mir das noch einmal. (00:19:37)

[29] C: aber ich find, ich will mehr, also ich würd gern mehr lernen,also so, dass mir was gezeigt wird, wie die, also das, das fehlt auch schon'n bisschen, dass sie mir mehr zeigen würden. (00:48:00)

[30] G:Also es ging, ging eher in diese Richtung, also auch wie manchmal, ja, wie man manchmal eingesetzt wurde, war halt einfach nur so, is ne Aufgabe, muss gemacht werden, Lernfeffekt, wissen wir nicht,so, da wurden wenig Gedanken dran verschwendet, hatt ich das Gefühl. (00:15:52)

trainees or encouraging them to learn may be an influencing factor in this decision. Interestingly, Trainee F contributes heavily to both the learning centred and minimum learning codes as he started a vocational training programme at a different firm, before being fired in his third year and starting his training again at a new firm. In the following abstract from his interview he compares the learning centeredness in the two firms showing clearly the differing approaches taken in different firms:

> *"They* [add. in the old firm] *only said 'you do this like this. Do it!' brutally hard.* [minimum learning] *And yes, as I said, my new Meister at least sits with us and explains it in peace; the theory of it, the practice of it, and how you can best apply it* [learning centred].[31]"

The differentiation between a PC state of minimum learning and learning centred will be investigated further in the quantitative study that follows. This theme will be included in the new measure the PsyCoVo described in Section 6.6 below. Trainee J, for example, explains that in the dentist's surgery her PC partner encouraged learning through the practical application of new skills, even though she is only in her first year of training:

> *"We are also allowed to do a lot on our own, considering that we are in our first year of training, yup. When the boss now says, for example, 'change the rubber bands on the jaw operation patient', or such like, then he leaves us alone, then we do it."* [32]

This emphasis on *learning by doing* is a strong theme being a main aspect of the trainees' daily lives at work. Of course, when learning a task it is likely that some mistakes will be made. The trainees reported two ways which the PC partners responded to making mistakes: that they were either a part of the learning process (*mistakes as learning process*), or that they were clearly not tolerated (*mistakes not tolerated*). Eight trainees' said mistakes were seen as part of a normal learning process by their PC partners, whilst two trainees reported that their PC partner did not tolerate mistakes, for instance, trainee C says that when she makes mistakes, "*there are always warnings because of some silly thing or another.*[33]" The way in which the PC partners deal with the mistakes of the trainees may also indicate how learning orientated the firms are towards the trainees, with those responding positively and constructively to mistakes more learning orientated than those who respond with warnings or

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[31] F: Nö, sie haben nur gesagt: "Das geht so und so, machen!" Knallhart. […] Ja, und, wie gesagt, mein neuer Meister setzt sich jetzt wenigstens mit uns und erklärt uns das in Ruhe, die Theorie davon, die Praxis davon, wie man das am besten umsetzen kann. (00:15:27)

[32] J: wir dürfen auch viel alleine machen, für dass wir erst im 1. Ausbildungsjahr sind, ne. Wenn der Chef jetzt sagt, ja, z.B. „Gummi wechseln bei KFO-Patienten" oder so, dann lässt er uns auch alleine, dann machen wir das. (00:02:08)

[33] C: es gibt ja immer Abmahnungen wegen irgendwelchen dummen Sachen. (00:50:34).

punishments. Due to their salience I will include both the themes of mistakes and learning by doing in the new PC measure (PsyCoVo) that will be developed for use in the quantitative study that follows.

Further codes in the *learning and teaching* category relate to who the vocational trainees see as being responsible for their learning. All ten trainees stated they were primarily responsible for their own learning (*learning vocational trainee responsibility*), and that passing the qualifying exams was ultimately up to them, and not their PC partners. Learning the material for the qualifying and end of year exams seems to be in the hands of the trainees to a great extent. In some cases the observation that the vocational trainee was responsible for their own learning had a negative aspect to it. It was often made after discussing a minimum learning situation where the trainees felt alone. For instance, F discusses his old trainer: "[add. My old boss] *more or less left the training to the other workers, but then it didn't matter if you learned anything or not* [minimum learning], *because you have to, then, do the exam at the end of the day* [learning vocational trainee's responsibility][34]." Incidences such as these illustrate that a PC state of minimum learning could impact the trainees negatively by putting extra pressure on them before the exam period and feeling alone. As it seems a rather clear-cut notion that the trainees are responsible for their own learning, this theme will not be pursued further in the quantitative studies that follow.

The last codes in this category were both spoken about by six of the trainees. These covered analytic units relating to the qualifying and intermediary exams (*testing*) and to the *checking* of the trainees' work. *Testing* was discussed firstly in relation to the exams being difficult but manageable, and secondly in conjunction to the conditions that the PC partner set out for further employment. For instance, trainee I states that to be employed in the firm, "*my boss is actually… 3* [a grade of C] *is really the cut off point for him.*"[35] When it comes to *checking,* trainees merely stated that their trainers checked their work for them when they had done something on their own to ensure that they had completed the task correctly. These were rather small codes in comparison to the rest in the category and therefore will not be included in any further analyses.

6.3.2.2   Help and Support

Moving away from learning and teaching, the second category of *Help and Support* contains codes which reflect how much the PC partners help and support the vocational trainees in their daily working lives. In essence this category reflects the presence or lack of a caring and nurturing state of the PC and is therefore situated under the meta-category, *PC state dimensions*. Codes nested in this category describe whether the vocational trainees believe they receive *help* or *no help* from their PC partners,

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[34] F: [Mein alter Chef] hat mehr oder weniger die Ausbildung den Gesellen überlassen, aber denen war's ja auch egal, ob du was lernst oder nicht, weil du musst ja letztendlich die Prüfung machen. (00:16:10)

[35] I: Mein Chef ist schon ...3 ist wirklich so Grenze für ihn. (00:18:22).

whether their PC partners offer them *continuous support* or not (*no continuous support*), and whether the PC partners are engaged with trying to support the vocational trainees' well-being or not (*well-being supported*; *well-being not supported*).

All ten participants indicated at least one point in their interviews that they received *help* if they needed it, and eight participants indicated that they were supported in their daily work by their PC partner or their colleagues. For example, participant H states:

> "*Well, they support me,* [continued support] *so, because they help me again and again and don't say 'Oh, H, you should understand this by now' or such, but they are actually like, that they help me, or such, when I don't know* [help].[36]"

Whilst some participants stated that they receive help more readily than others did, it seems that overall if the trainees in this sample asked for help directly, they would receive it. With *continued support*, although most of the participants noted that they felt supported by their PC partners in their daily activities, five of them also contributed to the code *no continuing support*, with comments such as: "[…] *we are not really paid attention to, the vocational trainees*"[37] being made, signalling that the state of some PCs are not very nurturing or supportive. I plan to investigate this differentiation further in the following quantitative study using the newly developed questionnaire measure.

The last codes in this category were also relatively large, with nine participants contributing to the code of *well-being supported* and five to the opposite code *well-being not supported*. Analytical units in these codes reflected the amount of commitment (if any) that the PC partners made to support the young people's well-being. As an example, participant A states that his well-being was explicitly thematised by his PC partner. "*Yes, that was said to me too. That it is really important that I'm happy, because I'll be doing this for three years and three years is a long time, if you are unhappy.*" [38] As a direct comparison, trainee G states that he felt that his PC partner didn't care about his well-being giving an example of being overworked and having over 180 hours of unpaid overtime: "*So, it's very clear to me that there is this direct link between being overworked and demotivation, they blamed that[demotivation] on me, [...] so, because of that, they didn't place very much value on my well-*

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[36] H: Also, sie unterstützen mich, also, weil sie helfen mir immer wieder und sagen nicht, "Oh, H, langsam müsstest du das mal begreifen" oder so, sondern sie sind halt schon so, dass sie mir dann auch dabei helfen oder so, wenn ich mal was nicht weiß. (00:17:07)

[37] C: […]also auf uns wird nicht so richtig aufgepasst, auf die Auszubildenden. (00:23:43)

[38] A: Ja, das wurde mir auch gesagt. Das es schon wichtig ist, dass ich glücklich bin, weil ich das ja nun drei Jahre dann auch mache. Und drei Jahre ist ja nun auch eine lange Zeit, wenn man unglücklich ist. (01:14:31)

being."[39] Again, this interest in the young workers' well-being seems an important aspect of the general state of the PC and so will be included in the new PC state measure developed from the interview data.

In short, the inductive category of *Help and Support* shows that the vocational trainees interviewed feel very differently about the amount of support they receive from their PC partners, in terms of help when needed, a supportive environment in the daily duties, and attentiveness to their well-being. Some trainees reported having an exchange relationship that was generally caring and helpful whilst others indicated that this was not the case, feeling left to their own devices and not cared-for. I interpret these differences in help and support as reflecting the extent to which the PC relationship is in a nurturing, caring state.

6.3.2.3 Valued Full Member of the Workforce

A third inductive category thought to reflect the state of the trainees' PCs is *Valued Full Member of the Workforce*. This category includes codes that describe the trainees membership within their training organisation; whether they feel they are viewed as a *full member of the workplace* or not (*not full member or the workplace*) and if the trainees feel integral to the organisation (*integral/ indispensable member of the workplace*). A last code in this category is *taking a stand against the firm* which reflects incidences where the trainees felt they needed to voice concerns about an issue in their firm.

Firstly, the code of *Valued Full Member of the Workforce* was contributed to by five of the trainees. Here the analytic units thematise the fact that these trainees are made to feel like fully functioning workers who have a value in the firm, feeling included and integrated in their teams. Trainee H puts it like this, "*...it's just, you don't feel like a vocational trainee, but that you belong.*" [40] One step further is the feeling that some trainees have that they are integral members of their workplace and that they are indispensable. Trainee I, gives this example: "*So, for example: two people are sick and then everything works like normal, and when I'm sick as a vocational trainee, then they get, then it gets really stressful for them.*"[41]

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[39] G: Also, dass es da diesen direkten Zusammenhang gibt zwischen überarbeitet und Demotivation ist für mich völlig eindeutig, die haben's mir zum Vorwurf gemacht.[…]Von daher, besonders viel Wert haben sie nicht draufgelegt, dass es mir gut geht. (01:13:59)

[40] H: … es ist halt, man fühlt sich nicht so als Auszubildender, sondern dass man dazu gehört. (00:04:34)

[41] I: So als Beispiel: 2 Leute sind krank und dann läuft alles noch normal und wenn ich dann krank werde als Auszubildende, dann kriegen die, dann wird's schon stressig für die. (00:11:20)

On the other side, the largest code in this category in terms of contributors and number of analytical units is *Not a Full Member of the Workplace*. All ten trainees discussed being a less than full-member of the workforce somehow. Some trainees seemed resigned to the fact that they were merely viewed as trainees and not seen as full members of the workforce, but utterances in this code were often mentioned in conjunction with feeling undervalued and under-appreciated. Trainee G, recounts an incident which illustrates this point:

> "[…] *I wrote, so a show order, sent it for corrections to my boss, he gave it the nod, said OK. The next day I got an email in my inbox that went to all of the artists 'here is the* [interuption]*... here is the show order in advance; we can change it at the venue as it was only written by our vocational trainee.' So![...] that was pretty much the exact words, ahm, so I was also really restricted there too"[42].*

The differentiations the trainees make, between being valued as a full member of the team or not, may well impact their general attitudes toward their PCs and consequently their work. For this reason, I plan to investigate this theme further in chapter 7.

The last code in this category, *taking a stand against firm,* pertains to the vocational trainee's defending themselves somehow against the firm. In essence, it concerns them having a strong enough voice within the firm to or act upon grievances. Four trainees contributed to this code. Most incidences in this code referred to the trainees either approaching or writing an email to their PC partners voicing a grievance. This code was often found in conjunction with the codes of *unfair*, and *disagreeing with the ethics / practices of the firm*. Participant J, for example, explains how she complained after she was left to deal with a mess at the dentist practice: *"Because, one day I got to the practice, in the morning, I was completely alone and it was totally messed up; a catastrophe. I made a complaint then, that it wasn't acceptable."*[43] Although relatively small, this code indicates that some trainers feel they have enough say in the firm to take a stance somehow, either by penning or airing a complaint or grievance, or through their behaviour. This is not so with all of the trainees as some participants really feel as though they cannot speak up at work, and they are 'only' trainees without a say. Participant B puts it

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[42] G:da war, ich hab, ich hab die halt geschrieben, diese, so'ne Showorder, zur Korrektur gegeben zu meinem Vorgesetzten, der nickt die ab, sagt ok, am nächsten Tag hab ich ne Email in meinem Postfach, die auch an alle Künstler ging: "Ja hier ist schon mal vorab die.... (Unterbrechung) ......hier schon mal vorab die Showorder, die können wir dann aber vor Ort noch mal ändern, die hat nur unser Auszubildender geschrieben", so![…] so ungefähr war der Wortlaut, ähm, also da wurde ich auch schon ziemlich gedeckelt. (00:20:09)

[43] J: weil einen Tag bin ich in die Praxis gekommen, morgens, war ich ganz alleine und es war alles durcheinander, Katastrophe, da hab ich mich beschwert, dass das so nicht geht. (00:25:42)

succinctly with this unit which I coded as *Not a Full Member of the Workplace*: "*You are just a trainee, and don't have much to say, that's the way it is.*[44]"

In sum, the category of *Valued Full Member of the Workforce* reflects the state of the PC in the way that the vocational trainees are dealt with in terms of their value as a fully integrated member of the work force. Speaking from an operational standpoint, a trainee who has only trained at a firm for a few months will not be able to carry out the same duties or hold the same responsibilities as a longer standing member of staff; however they could be included into the team in a meaningful way, that is suitable for the trainees' skill level. This state of inclusion and being valued as a full member of the workforce emerged as being important for the trainees and will be investigated further. This may also be an interesting point for further study for other groups of contingency worker (c.f. McLean Parks et al., 1998), especially agency workers, who, as external workers, may not feel as attached or integrated into the host firm as the stable workers.

6.3.2.4 Fairness

The last category in the meta-category of *Psychological Contract State Dimensions,* which was the only deductive category in this meta-category, is *fairness*. As discussed in chapter 4, the issue of fairness in the PC deal has received some attention within the literature (Herriot et al., 1997; Guest & Conway, 2002; Robbins et al. 2012) with it being included as a general item in some PC measures (e.g. Guest & Conway, 2002), however, I was interested in what the vocational trainees saw as being a fair or unfair deal in their particular situations. As this group of workers are different to traditionally employed staff, I suspected that what they saw as being fair may reflect specific idiosyncrasies in their PC deals.

The two main codes within this category of *fair* and *unfair* are large both in terms of participant size and analytical unit frequency. All ten participants contributed to the code *fair*, and seven to the code *unfair*. Analytical units were coded as being *fair* or *unfair* if the trainees indicated that were somehow treated unjustly or unfairly, or of that they stated their PC partner, or the PC agreements made by their partners were fair or unfair. Working parameters were discussed in terms of fairness with participants mentioning working times and holidays. Many participants commented about how much holiday they were allowed to take, when they could take them and whether they thought this was fairly dealt with or not. Overtime issues were also thematised and included in the fairness category. The way overtime was agreed upon in the trainees PCs was considered by some trainers as being fair, and some unfair. Table 13 presents a direct comparison of participants F and G in the way their overtime is handled by their PC partners, which clearly illustrates the very different approaches taken.

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[44] B: Man ist halt Auszubildender und hat halt nicht viel zu sagen, so ist das. (00:32:32)

Other points of interest from this category of *fairness* included the tasks that the trainees were allocated, and whether they believed them to be fairly distributed within the workforce and whether the trainees were treated in a similar way to one another within the firm. In J's firm, for instance, she finds it *unfair* that one trainee is singled out as being a favourite:

> "*Yes, for example, when you do treatments, you take turns, for instance, you go in now, next time I do it, right, so that they also get a bit of air, then the next, and this favourite, for example, she sits at the front at the reception and she just sits there the whole time, no one says, 'why are you sitting here, why aren't you doing anything?' But if we do that: 'Why are you here just sitting around?*[45]"

Table 13. Comparing two analytical units in the fairness category on overtime

Participant Code	Participant F *Fair*	Participant G *Unfair*
	"*As a trainee it's not worth it to have them* [overtime hours] *paid out, therefore we are allowed to have time off in lieu.* […] *Either go home early or, when you have collected enough hours, time off, a complete day.*"[46]	"*Um, and now I've got the problem, that, that in the new department I can't use them* [150 overtime hours]. *The other department is, in principle, a whole other firm [...] it's its own limited company, and I can't just transfer these overtime hours there.*"[47]

A further issue for the trainees regarding the distribution of tasks was that they, as trainees, did not get all of the 'dirty work' to do at the firm (such as making coffees, taking out the rubbish, cleaning and other unsavoury tasks). Participant D speaks about cleaning the bakery where she trains, a deal which she finds unfair: "*Fair, yes, for instance, if we have to clean, that the, um, sales staff also sometimes clean, not just the trainees, that I find fair. Unfair, is that only we have to clean. I don't find that*

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[45] J: Ja, z.B. wenn man behandelt, man wechselt sich immer ab, z.B. du gehst jetzt rein, nächste mach ich, ne, damit sie auch dann'n bisschen Luft hat, dann die andere und dieser Liebling z.B. die sitzt vorne am Empfang und sitzt die ganze Zeit da rum, da sagt keiner: "Warum sitzt du hier, warum machst du nix?" Wenn wir das machen: "Wieso sitzt du hier rum?", z.B., ne. (00:44:56)

[46] F: Als Azubi lohnt sich das nicht, sie sich vergüten zu lassen, deswegen dürfen wir die abbummeln. (00:23:13)

[47] G: ähm, und hab jetzt eben das Problem, dass, dass ich's in der neuen Abteilung nicht einsetzen kann, also die andere Abteilung ist im Prinzip nen ganz eigener Betrieb […]ist ne eigene GmbH, ähm, und ich kann diese Überstunden nicht einfach mit rübernehmen. (01:02:06)

good."[48] In comparison, participant I finds that such jobs are fairly distributed in the surgery where she works, describing doing telephone duty as follows: "*Everybody has to do it sometimes, it's not that it's only me sitting there*[49]". This preoccupation with a fair distribution of the unsavoury tasks is not, to my knowledge, a theme that has been discussed in other papers concerning PCs. It may be that vocational trainees are highly aware of the distribution of such tasks due to their wish to be seen as full members of the workforce in their own right, and not just seen to be there to do the dirty work for the other workers. This may be a finding that is rather specific to this group of workers and will be investigated further in the quantitative measure which will emerge from this questionnaire data.

A last theme that was discussed by the trainees under the category of *Fairness*, was that of appropriate levels of responsibility being given the trainees. This is a particularly interesting new finding. The trainees interviewed are aware that they are still learning their jobs, and discuss receiving an appropriate and fair level of responsibility. In some cases the trainees feel that they are given too much responsibility. For instance, J believes that in her first vocational training position which she left, her PC partner was unfair, demanding knowledge past J's training level: "*I hadn't even been in training for a month, and she demanded things, that I couldn't know.*"[50] Conversely, participant I speaks of her PC as being *fair* as she feels she is treated appropriately for her stage of training; "*... But also fair, that I'm not handled like a fully trained medical assistant, when I, for example, do something wrong or such."*[51] This appropriateness of responsibility level is an important theme emerging from the interviews and certainly one that will be investigated further, being included in the PC state measure to investigate trainees' PCs.

6.3.2.5 Summary: Research Question 2

In sum, when answering the second research question a number of aspects concerning the vocational trainees' psychological contract states emerged as a concern for them. These included how much emphasis on learning and teaching there was in the PC deal, how helpful and supportive the PC and PC partner were to them, whether their PCs reflected that they were valued full members of the workforce, and lastly, the amount of fairness that underlay the exchange relationship. These state features are thought to be of high importance to the trainees and were also interpreted as being cornerstones of the interviews. The only one of these state dimensions that has received any attention

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[48] D: Gerecht, ja, z.B. wenn wir putzen müssen, dass die, ähm, Verkäufer auch mal putzen, nicht nur die Azubis. Das find ich gerecht. Ungerecht ist, dass wir nur putzen müssen. Das find ich nicht so gut. (00:50:45)

[49] I: Jeder muss es ja mal machen, ist ja nicht nur so, dass ich da sitze. (00:14:45)

[50] J: Ich war noch nicht mal einen Monat in der Ausbildung und sie hat Sachen verlangt, die ich nicht wissen kann. (00:13:05)

[51] I: aber auch fair, dass ich nicht behandelt werde, wie eine ausgelernte medizinische Fachangestellte, wenn ich z.B. was falsch mache oder so. (00:32:01)

in previous literature is that of fairness, so it may be that the other state issues are specific to the situation of vocational trainees and deserves further investigation.

The issue of PC states that are particular to the vocational trainee population is taken up in section 6.6 of this paper where a measurement tool (the PsyCoVo) is developed that stems from this research questions' findings. As stated above questions related to *learning and teaching*, *fairness*, *help and support* and *being a valued member of the workforce* will all be included in the measure that will be developed with the intention to capture the state dimensions of vocational trainees' PC deals. This will then be used in the following quantitative investigations in this research project (please see chapters 7 and 8).

6.3.3 Findings: Research Question Three

The third and final research question in this qualitative study concerns features of the individual trainees and their backgrounds that are discussed in relation to their PC deals. Which background or personal features of the individual trainees are discussed in conjunction with their psychological contracts? When answering this question, two meta-categories stemming from the interviews are of particular importance: *Background Factors* and *Personal Reference Points for Vocational Trainees* (see Table 14 for an outline of these meta-categories). I outline each of these areas in turn in the following section.

Table 14. Meta-categories, categories and codes regarding the background and personal features of the trainees that were discussed in relation to their PC deals including the number of trainees and analytical segments per code

MC C Co	n trainees contributing	n analytical segments
Background Factors		
Alternatives to the training		
No Alternative to this VTg	3	5
Alternatives to the VTg	8	24
VTg as first choice	3	7
This VTg as first choice	4	6
VTg as secondary choice	7	13
This VTg as second choice	3	5
Job choice help family/friends	4	6
Applications		
Traditional application	8	21
Personal contacts	2	8
Wider Framework		
Economic climate	4	6

Table 14 Continued

MC C Co	n trainees contributing	n analytical segments
Framework of the VTg	7	23
Previous Experience		
Previous work experience	7	22
Probezeit- trial period	6	15
Previous completed VTg	0	0
Previous incomplete VTg	2	8
Applications		
Traditional application	8	21
Personal contacts	2	8
Personal reference points for trainees		
Adjusting to the PC/ training		
Adjusting	10	102
Gaining independence / becoming more adult	5	20
Expectations and beliefs concerning training		
Expectations	10	74
Beliefs	7	33
Safe job after VTg	5	17
Ethical considerations		
Disagrees with aspect of firm's ethics/practice	3	12
Comparisons with others		
Comparisons	10	62
Favourable inside comparisons	9	43
Unfavourable inside comparisons	6	20
Unfavourable outside comparisons	5	19
Favourable outside comparisons	3	8
Personal goals		
Trainees' personal goals	10	46
Furthering horizons: wants to go further than this VTg	6	21
Conflicting with plans / goals	8	24
Facilitation or not conflicting with goals /plans	5	13

Note: Vtg- vocational training. Codes in Italics are deductive codes emerging from the literature base, codes in print are inductive codes.

6.3.3.1 Background Factors

The background factors discussed by the vocational trainers in conjunction with their PCs were coded under the meta-category *Background Factors*. Analytical units were placed in this meta-category if

they reflected factors that impacted on the way the psychological contract was formed. Four categories were nested under this meta-category: *Alternatives to the Training, Applications, Wider Framework* and *Previous Experience*. Utterances concerning whether the vocational trainee had any *alternatives to this vocational training* were placed in one of seven codes. The two codes of *alternative to this training* and *no alternatives to this training* were deductively constructed whilst the other five emerged from the interviews. Eight trainees reported having some alternative to their current vocational training whilst three commented on having no alternative but to start this particular training.

Other codes in this category were small, apart from *Vocational Training as Second Choice*, which seven contributors. Most of the trainees interviewed would have preferred an alternative educational path, such as completing the academic rather than vocational track of schooling (see Figure 1 in Chapter 3 for an outline of the German school system). Participant B states, "*It* [vocational training] *was just that ... second choice, because I was at a college but I didn't manage it.*"[52] This background of either being forced into vocational training by circumstance or due to a lack of alternatives, and the training being a first or second choice for the young people may affect the way the trainees approached and formed their PCs. This may also impact their well-being and attitudes at work (either directly or indirectly), for instance if they feel somehow forced into this workplace. Although this is a point worth investigating it unfortunately lies outside the scope of this dissertation.

The category of *applications* outlines how the trainees applied for their training positions. The largest of the codes was *Traditional Applications*, as eight trainees applied through the traditional means. Two trainees indicated that their application was successful because of *Personal Contacts* they had with the firm or the PC partner. Although this personal link may have affected the way the PC was formed this finding was not thought to be of enough significance to include in the quantitative investigations, having been mentioned only in a cursory way by participants.

The category *wider framework* includes analytical units discussing the framework surrounding the training, including the wider *economic climate* and the legal *framework of the vocational training* itself. These codes were rather small, with only four participants mentioning the economic situation, mostly in conjunction with being taken on at the end of the training, or with the difficulties they had gaining a training place. The code relating to the framework of the training was larger, with seven contributors. I also deemed the themes that were discussed here (e.g. work schedules, minimum requirements and hours for the trainings) to be secondary to other issues related to the PCs or well-being of the trainees and therefore will not be included in the quantitative analysis.

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[52] B: Das war nur das… zweitrangig, weil ich war halt mal auf'm Gymnasium, aber hab das leider nicht geschafft. (00:05:30)

The final category under the meta-category *Background Factors* related to whether the trainees had *previous experience* of a PC or not. This category encompassed information about any *previous work experience* outside the firm or *trial periods* in their firm. Seven participants said that they had some previous work experience such as a school work experience scheme, or untrained holiday- and Saturday-jobs. Due to the casual nature and short duration (sometimes only a week long) of these jobs, I will not investigate this further.

One interesting finding in line with the figures reported by the German Federal Institute for Vocational Training (BIBB, 2012), is that two participants had started a previous vocational training before this one (*previous incomplete vocational training*). Participant J left two training places of her own accord; one at a bakery after six weeks as she was unhappy there and felt that the job did not suit her, and one at a dentist practice after eighteen months of disagreements with her boss. Participant F was previously fired in his third training year for getting signed off work sick and then working on another job. He also states that he had many disagreements with his old boss previous to that critical incident. This experience of sub-optimal PCs in previous training jobs characterised by disagreements and a lack of understanding between the two PC partners may well have impacted upon the formation of the new PC that the trainees made perhaps jading it slightly. Questions relating to previous training positions will also be asked in the quantitative study to follow.

6.3.3.2 Trainees' Personal Features and their Psychological Contracts

The second part of research question three relates to the personal features of the trainees which are discussed in conjunction with their PCs. Here, the meta-category yielding the most information in this respect is *personal reference points for the trainees* which links to the way the trainees reflected upon themselves and how they saw themselves within their training situation. This reflection was in relation to themselves now and compared to earlier (*adjusting to the PC/training; ethical considerations*), in relation to others (*comparisons with others),* in relation to their beliefs regarding the training (*expectations and beliefs concerning training*) and in relation to themselves compared to where they want to be in the future (*personal goals*).

Firstly, the trainees discussed the transition to vocational training and how they found *adjusting to the PC and the vocational training* in relation to how their lives were before the training (e.g., at school) and how it is now. There were two codes within this category: *adjusting*, which all ten trainees contributed to and was a large code, and *gaining independence/becoming more adult,* with five contributors. Not surprisingly, the trainees at this stage of their lives seem interested in the themes of independence (c.f., Nurmi, 2001; Karniol & Ross, 1996) and tended to view the change from the formal school situation to the working environment as a positive development in their lives, accompanied by benefits such as a small wage, more independence from their families and new perspectives. Some reported a completely problem free transition period whilst others found the

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transition a little difficult as new rules and norms had to be learned. Participant A, states, "*At the beginning, I can say openly, it was a bit hard. Introducing oneself into it* [the vocational training] *a bit, because one didn't know it completely from the school."* [53] The difficulties flagged all seemed to reflect a normal, healthy developmental step for the trainees interviewed. This finding is in line with findings from developmental theorists who state that once a transition is completed, an adaptive behaviour is to settle into the new role, concentrating on the positive elements of the new situation (c.f., Heckhausen, et al., 2010; Nurmi, 2001; Salmela-Aro, 2010) which in these trainees' cases are new opportunities and independence. I decided not to include this theme of adjusting in future investigations for two reasons. Firstly, the participants spoke rather generally about adjusting to the training situation as a whole rather than adjusting to the PC per se and so it was hard to delineate conceptual boundaries here. Furthermore, the results generally backed results from past research so it was not a novel finding.

One debate in the psychological literature is that expectations and beliefs regarding a working situation leak into discussions of PCs as the boundaries of the concepts are rather blurred (c.f., Guest, 1998). Indeed, at times it can be hard to differentiate between what would be considered merely a worker's belief, and an intrinsic promise that has been either hinted to them by a working partner, or made by observing behaviours at work. I attempted to make the separation clear for this investigation by deductively making the category of *expectations and beliefs concerning training* in order to differentiate these analytic units from the units directly related to PCs, and to aid in excluding them from any further investigations. This category contains three codes; *expectations*, *beliefs* and *safe job after training* (which was a small inductive category). The code of *expectations* contained quotes from all ten trainees which covered the theme of how they had expected their training to be, before the training had even begun, and how different it was to what they had expected it to be like. Analytical units were coded as *beliefs* if they represented a belief that the trainee had relating to the vocational training programme or to their jobs. For example, in the following extract participant H discusses a belief she has relating to attitudes at work. "*Yes, one has to, yes, so, approach vocational training openly, because if you don't, um, I don't think that you'll get so far, if you already get stuck, in what you think about it."[54]* Such expectations and beliefs will not be included in the further qualitative investigations as they do not concern the PCs of the trainers.

Participants were found to use their own moral maps as a reference point for their work and PCs. A very small category that deserves a mention here, although it is not large enough for inclusion into the

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[53] A: Am Anfang, kann ich ja offen sagen, war es ein bisschen schwierig. Gerade sich so ein bisschen einzugliedern, weil man das aus der Schule bisher nicht ganz so kannte. (00:03:43)

[54] H: Ja, man muss ja auch so offen an eine Ausbildung rangehen, weil sonst, äh, glaube ich nicht, dass man so weit kommt, wenn man sich schon so festfährt, was man denkt darüber. (00:12:14)

quantitative studies, is that of *ethical considerations.* There is only one code in this category called *trainee disagrees with aspect of firm's ethics/practice.* Three trainees (C, D and G) contributed to this code. Although C and D both work for different bakeries, they both had the same ethical dilemma: they were told to sell bread that was one- or two-days-old to customers as freshly baked bread, which the trainees described as being immoral. Participant G, on the other hand found the way his PC partner expected him to deal with the arts and the show acts went against his ideals of art being for art's sake: "*yes, that's got something to do with my ideals, on the other side I can, so with the ideals somehow, so, the commercialisation of culture describes it well, just so torn.*" [55] Such moral considerations may have an impact on the tendency for trainees to keep their promises to the firms. In the case of participants C and D, they both go against the firm's practices and actively avoid selling old bread to customers. This disjunction between what the PC partners expect of them and how they actually behave due to moral dilemmas is a novel finding and could warrant further investigations in future papers.

A third category under the meta-category of *personal reference points for trainees* is *comparisons with others.* This category encapsulated comparisons the trainees made of their PC deals to the deals of their friends, family, co-workers, other trainees and other workers. This category was relatively large and provided support for developmental researchers (c.f., Salmela Aro, 2010; Nurmi, 2008) who stress that adolescents compare their own situations with their peers and families to assess their situations against others' and to help structure their lives. Comparisons were coded as either favourable or unfavourable depending on whether the trainee felt their deal was better or worse than the comparison person's, and coded as either internal or external, depending on whether the comparison person was doing vocational training or was outside of this programme. There was also a general comparisons code which resulted in five codes (*favourable inside comparisons*, *favourable outside comparisons*, *unfavourable inside comparisons*, *unfavourable outside comparisons* and *comparisons).* The largest was the general comparison code followed by *favourable inside comparisons* to which nine trainees contributed. This result signals that the trainees compared themselves to other trainees more readily than other social partners, and secondly, that most find they have good deals in comparison to their peers. For example, Participant I compares her general PC deal favourably with others in her vocational training school class; "*Yes, so now in comparison to the others in my class, I'm really onto a good thing.*" [56] Nevertheless, six participants did make *unfavourable inside comparisons* regarding

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[55] G: Ja, das hat, das hat was mit, ja'n Stück weit mit Idealen zu tun,auf der andern Seite kann ich, ähm, also bei den Idalen irgendwie so Kommerzialisierung der Kultur ist vielleicht, beschreibt es das ganz gut, nur so angerissen. (01:03:54)

[56] I: Ja. Also im Vergleich jetzt zu den anderen aus meiner Klasse bin ich doch schon ganz gut dran. (00:02:38)

some aspects of their PC deal. Participant C discusses aspects of her deal compared to trainees at another bakery including how hers is less learning orientated:

"[…] *we've got fewer products and different products, for example, then at* [bakery B]. *They've got for example, a bigger selection and they are taught more, so, there's always someone who comes as a test customer and, or, they sometimes go to, like a seminar and at ours we don't have that at all.*"[57]

A final code of *comparisons* was the largest in this category, which contained general comparisons and comparisons of the trainees' earlier situations to their current one. The trainees used the PCs of the people that they know as reference points for their own PCs, in order to help them to judge whether the deal they were getting was a good one or not. This finding adds support to Ho's (2005) and Conway and Briner's (2005) notion that employees measure the equity of their own PC deals by making social comparisons. Whether those trainees who contributed to the unfavourable comparison codes were more likely to perceive breaches in their PCs was not clear from this interview study, making it an interesting avenue for future research. Nevertheless, this will not be scrutinised in more detail in this thesis as it is probably not exclusive to the PC deals of vocational trainees.

The final category in the meta-category of *personal reference points for trainees*, and one that is important for this dissertation project as a whole is *personal goals*. Although the PC deal is the main focus of this interview study I did question the participants on their personal goals to a limited extent. This category contains a large code relating to the vocational *trainees' personal goals* in general. This contains analytical units describing goals that the trainees have, and general utterances relating to their goals. Specific goals that the trainees have that do not fit into the other codes in this category are also found in this code. As examples, Participant I describes one of her goals for the vocational training, "*So, [...] I hope that I can shorten my vocational training.*"[58], whilst J speaks of her goal outside of the training situation, "*[...] at some point one also wants to have a family and children [...].*"[59] Most trainees discuss the completion of their vocational training in goal terms hoping to end with a good grade that will allow them to gain a good job in the field, or to develop further.

This goal of further development is encapsulated in the code *furthering horizons: wants to go further than this vocational training,* which was contributed to by six trainees. These trainees talk about their

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[57] C: weil wir weniger Produkte haben und andere Produkte z.B. als „Backerei B", die haben z.B. ne große Auswahl und die werden dort mehr ausgelernt, also da gibt's immer jemand, der als Test kommt Kunde und oder die gehen mal zu so'n Seminar und so,bei uns gibt's das gar nicht. (00:23:33)

[58] I: Also […] ich hoffe, dass ich meine Ausbildung verkürzen kann. (00:08:47)

[59] J: […]irgendwann will man auch Familie und Kinder haben […]. (00:32:28)

hopes to go further than the vocational training, seeing the training as a stepping stone to bigger and better things. Participant G speaks about this in general terms: "*And, no, it offers me a good platform, to do more; more than Firm X* [this firm] *can offer me.*"[60], whilst other trainees are more concrete discussing goals to go to university, become a master craftsman in their field, or to learn a different job. Participant J is a good example here, stating, "*I also was thinking, actually, when I'm finished, to study the job myself, you know?*[61]

An interesting finding here is that although they do aim to complete their vocational training, some trainees do not necessarily want to work in the job that they are training for now, seeing the training as something to fall back on if their other goals are not successful. Having a fall-back plan that is strived for at this stage in one's career may be an adaptive strategy for adolescence and is a topic worthy of further investigations, although outside the scope of this dissertation.

The final two codes in this category relate to how the PC deal or the vocational training facilitates or is in conflict with the trainees' goals (*facilitation or not conflicting with goals /plans, conflicting with plans / goals*). These codes were developed deductively as links between the PC deal and personal goals are a focus of this dissertation. The goal conflict code is the larger of the two in terms of contributors, with eight trainees providing examples of goals that conflict with their current training situations. These conflicts were often linked with time constraints for seeing family, friends and taking part in hobbies due to working hours. Participant C is a good example for this code, as she describes the conflict between her long working hours and her desire to have a good relationship with her new husband:

> *I got married in the registry office in the summer […] and, well, my husband is coming here next year, and if I were to work such long hours then, I would find that really stupid, because then, you don't have a correct relationship, do you?*"[62]

It appears that adjusting to the working times and factoring in over-time is a trigger for goal conflict situations for some trainees. Indeed, the trainees are expected to work for longer hours than was expected of them whilst at school and this change seems to require the young people to adapt to the situation by reprioritizing and reorganising their goal sets to a certain degree, as would be expected from a developmental milestone (Heckhausen et al., 2010; Nurmi 2008; Salmela-Aro, 2010)

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[60] G: und, nein, es bietet ne gute Plattform, mehr zu machen, mehr als mir das Firme X bieten könnte. (01:06:44)

[61] J:Ich hab mir auch überlegt, eigentlich wenn ich fertig bin, den Beruf selber zu studieren, ne.(00:32:16)

[62] C: weil, ähm, ich hab standesamtlich geheiratet im Sommer...[…] und na ja, mein Mann kommt dann nächstes Jahr hierher und wenn ich dann so lange arbeiten würde, das wär mir ganz doof, weil da, man hat keine richtige Beziehung, ne? (00:34:48)

On the other hand and more positively, five trainees discussed situations in which their PC or training situations did not conflict, with their goals actually facilitated by them in some ways. To illustrate, participant D speaks of how her training may facilitate her application for a residency permit:

> "*um, I also don't have a full German residence permit […] and, um, we wanted to do an application for it, and when they see that I've got a vocational training job, they'll, I believe, allow it, more than if I was sitting around unemployed*" [63]

Other comments in this code indicated that some trainees did not have to give up any of their hobbies, and still managed to see friends and families enough so their goals outside of work were not majorly affected by the training. This tended to be more the case with trainees who worked regular hours rather than shifts, and those who still lived in their parent's home. How much readjustment needs to be done to the goal set in order to reduce and deal with conflicts successfully seems to depend mainly on situational and time factors individual to the trainees', as they appear to be different for each job learned.

To recap, the topic of personal goals did emerge as being an important one in the trainees' lives, with most trainees focusing heavily on completing their training to a high standard. This was seen to be either facilitated or hindered by the PC and training situations. Goals outside of the training situation, such as keeping up with friends, families and hobbies were discussed as being important to the trainees, with a lack of time being the root cause of most conflicts in this area. The vocational trainees' personal goals seems to be the most useful and important personal reference point for the trainees' in terms of their future development and providing motivation for their daily lives both within and outside the training situation. The role that personal work goals play in the lives of vocational trainees will be tested further in the quantitative studies that follow.

6.3.3.3   Summary: Research Question 3

In sum, when answering the third research question, it emerged from the interviews that background factors concerning whether the trainee had any work experience prior to stating their training, whether they trainee had any alternatives to the training and what the economic climate was, were discussed in relation to the PC deals that the young people hold. In addition, the trainees were found to use personal reference points to discuss their situations in their training firms and the exchange relationships that they were party to. These reference points included the expectations and beliefs that they held about

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[63] D: Und, ähm, ich hab auch keine deutsche Aufenthaltserlaubnis...und, […] äh, wollen wir jetzt nen Antrag machen und wenn die dann sehen, dass ich ne Ausbildung hab, würden die, glaube ich, eher geben als wenn ich da arbeitslos rumsitze. (00:19:24)

their training, their own ethical standpoints, comparisons with their peers and co-workers and most importantly, their own personal goals inside and outside of the work domain.

As an aside, there was one last category that emerged from the interviews that I have not discussed in this findings section as it does not relate directly to the research questions. It is, however, worth a cursory mention here. The category is called *subjective characteristics of job* and contains utterances that relate to how the vocational trainees find their jobs. Codes here tended to cover the adjectives used by the young people to describe their training situations, e.g., *engaging/interesting, easy, manageable, enjoyable*. The largest two codes in this category in terms of contributors were *enjoyable* and *difficult*, indicating that most trainees could find some aspects of the job fun and that most trainees found the work challenging, at least at times. For the interested reader, the frequencies and descriptions of these and the other codes in this category can be found in the code rules manual in Appendix 2.

6.4 Limitations of the Study

Carrying out qualitative research always brings with it the issue of interpretation. During the analysis process it became clear that the boundaries of some conceptual distinctions in PC theory were hard to differentiate and open to interpretation, which made the coding of some sections of the interview material challenging. For instance, it was sometimes difficult to define when participants were discussing intrinsic promises that made up part of their PC deals or simply talking about beliefs or expectations relating to their vocational training experiences. This limitation was approached by coding expectations and beliefs under a separate category, specifically to filter them out of the analysis. If any interview sections were unclear in this regard, they were discussed with the research assistant and a coding decision was then made in order to reduce errors in interpretation.

It is also prudent to limit generalisations about the larger population of vocational trainees in Germany based on the current data (Gürtler & Huber, 2007). The data presented represents the themes discussed by ten vocational trainees carrying out a number of different jobs in differing sectors such as the sales, service, technology, and health-care arenas. There are some job sectors which I did not cover such as hand crafts, logistics and information technology. Nevertheless, whilst interpretations regarding the particular PC deals and vocational training situations of these 10 trainees can be made, broader causal relationships relating to vocational trainees as a population sector is not possible. Nevertheless, I did seem to reach a point of saturation in the study where the last interviews did not generate any new codes. Despite this lack of generalisability, Interesting and sometimes surprising themes and issues which may affect other trainees can, and have been gleaned from this study, alongside multifaceted results and new findings. Thus, using an in-depth qualitative approach for the preliminary study in this research row seems justified.

6.5   Conclusions

In this qualitative study of the lived experiences of ten vocational trainees I have uncovered a number of new findings which relate to the PCs and the training situations of these young people. Firstly, in looking at the main features of the PCs these young people have a clear conceptualisation and good understanding of the promises that make up their PCs and the roles that they and their PC partners have in the exchange relationship, despite the early stage of their careers. A second major finding is that the standard concepts put forward by Rousseau (2000) to classify workers' PCs did not seem particularly relevant to the young people in this study. Rather, their pre-occupations related more to the state of their PC deals, including how learning and teaching orientated they were, how supportive they were, how far the deals reflected their value as fully fledged members of the workforce, and how fair their deals were. For this reason, the quantitative measure to emerge from this interview study will concentrate on these issues, and not simply extend one of the traditional PC measures.

Other novel findings that are of note include the role that personal reference points play in the way that the young people discussed their daily lives at work and their PC deals. These reference points included their own moral compasses, the comparison of their own PC deals to that of peers, family members and colleagues, the way that they saw their adjustment to the new working situation and their PCs, and lastly, the way that their personal goals were integrated with or clashed with the vocational training.

Particularly interesting findings in respect to the personal work goals of the trainees were that the vocational training was often spoken about, not as a means to a career in the job they were learning, but as a springboard to bigger and better things with some trainees planning to leave their training firms to go on to university, or better qualified positions. It is clear from the data that personal goals are highly relevant to the young people in this study and the amount of facilitation or hindrance the training situation afforded them was also an issue for them. This will be investigated further in the quantitative studies that follow.

6.6   Psychological Contract Measure for Vocational Trainees (PsyCoVo)

The interview study was carried out to tackle two main aims. Firstly, to answer the three research questions which I have completed, and secondly, to aid the creation of a quantitative measure that would capture the salient features of vocational trainee's PC deals. The creation of this measure, the 'Psychological Contract Measure for Vocational Trainees' or PsyCoVo, is laid out below.

It emerged from the interview data that more traditional measures of PC deals such as Rousseau's (2000) transactional-transitional measurement instrument, may not be entirely suited to the population of vocational trainees. This is because these young people's focus was the state of their PC deals. Four major themes emerged from the data as being of particular relevance to the young people in this

respect: 1) how much support or help the PC partner promised in terms of the young person's well-being, and daily work; 2) how fair the PC deal was believed to be; 3) the extent to which the PC deal reflected the trainee's value as a full member of the workforce; 4) how much the PC deal was based on the young person's learning. These four themes stood out from other findings in the interview study, as the codes that were related to them highlighted issues that were very specific to the target group of vocational trainees rather than a more general working population. For these reasons the four psychological contract categories were chosen to make up the body of the PC measure that I created.

6.6.1 Structure and Instructions

The first step in developing the PsyCoVo scale was to choose a suitable framework within which to present the questions in. As discussed in Chapter 4 there are various PC content measures available for use, although none specifically for a population of vocational trainees. One measure which stood out as being clearly defined whilst also differentiating between explicit and implicit promises is that of Guest and Conway (2002), who take a two-column approach. In a first column participants are asked to indicate a) whether a PC item was promised at all and b) if so, whether it was explicitly promised, strongly implicitly promised, or weakly implicitly promised. In the second column participants indicate whether the promise was fulfilled, exceeded or breached. The participants answer these three questions per promise item and the number of breaches, fulfilled, and exceeded implicit and implicit promises are then calculated.

I took Guest and Conway's (2002) two column structure as a foundation for the PC state measure. For the first column of the PsyCoVo measure I instruct participants to indicate whether, and in which way promises were made to them. The item stem wording is: "*From the side of the training firm, it was promised to me or hinted to me that …*" followed by the item. Participants were asked to mark their answer for each item on one of the following three responses: 1) *no promise*; 2) *it was hinted at*; 3) *it was directly promised or written down* (Please see Appendix 3 for the original German scale). I decided to use responses for the first column that were simpler than Guest and Conway's (2002) scale, which also differentiates between strong and weak implicit promises. I did not find this distinction clear-cut enough to include in this new tool and as I wanted to keep the new scale as easy to use for the young respondents as possible. I therefore reduced the scale to these three responses.

I also deviated from Guest and Conway (2002) when constructing the scale for the second column. Rather than asking to what extent the promised items had been fulfilled or not, the PsyCoVo instructs the participants to rate whether the items in question actually happen at work or not. The item stem wording was: *"Really, at my work …"*followed by the item, with a four point answer scale ranging from "*I do not agree"*, to "*I agree"* (see Appendix 4). In this way the measure is capable of capturing multiple aspects of the PC deal. Firstly, is a promise made or not? Secondly, discrepancy values between what was promised and what actually happened can measure whether the promises were kept

or broken, And thirdly, the measure can be utilised to test how promises alone affect the VTs well-being over and above what actually happens at work — a dimension not measured in many other PC scales.

The scale was presented to the participants using a short text and cartoons which explained the concept of the promises within the psychological contract in simple terms. Cartoons depicting scenes at work were chosen to illustrate the difference between an explicit promise and an implicit promise to the trainees in order to keep their attention and to present this differentiation clearly without a lengthy explanation. I named these a 'firm promise' (explicit) and a 'hinted at promise' (implicit) within the measure for simplicity's sake and so as not to use unnecessary jargon. Below in Figure 29 is an English translation of the instructions and the cartoons that accompanied the PsyCoVo measure. For the original German wording please refer to Appendix 4.

6.6.2   PsyCoVo Item Generation

As stated above, four state areas were identified from the interviews to be included in the PsyCoVo measure. These were support and help, fairness, valued as a full member of the workforce, and learning and training. In developing the individual items for the measure I relied heavily on the data which emerged from the interview study. To actually create the items I searched the interviews' analytic units for utterances which exemplified the codes within each of these four categories. I then rewrote these analytic units as items, keeping as close to the vocational trainees' wording as possible. In this way I hoped to add a certain genuineness and plausibility to the items whilst keeping true to the information that the items are based on. Creating the items in this way also meant that in effect, the questions were asked in the voice of vocational trainees themselves.

Minor adjustments had to be made to the wording of some quotes in order to mould the items into statements which fitted the item-stems used in each column of the measure and secondly to make the items broadly relevant to the wide spectrum of jobs available to trainees. In Table 15 I illustrate this item generation process with examples. Here I present one item each from the four PC state scales, and compare it with the original quote from the interview from which it was generated. For reference purposes, the German original item and interview segments are presented in italics within the table.

What was promised to you at work and what is it really like?

Your supervisor or your trainer have probably made hints or promises to you about how particular things during your training will happen. For example, what your working hours will be, how much support you will get, or what you will learn.

However, sometimes people find out during their training that not all of these promises are kept.
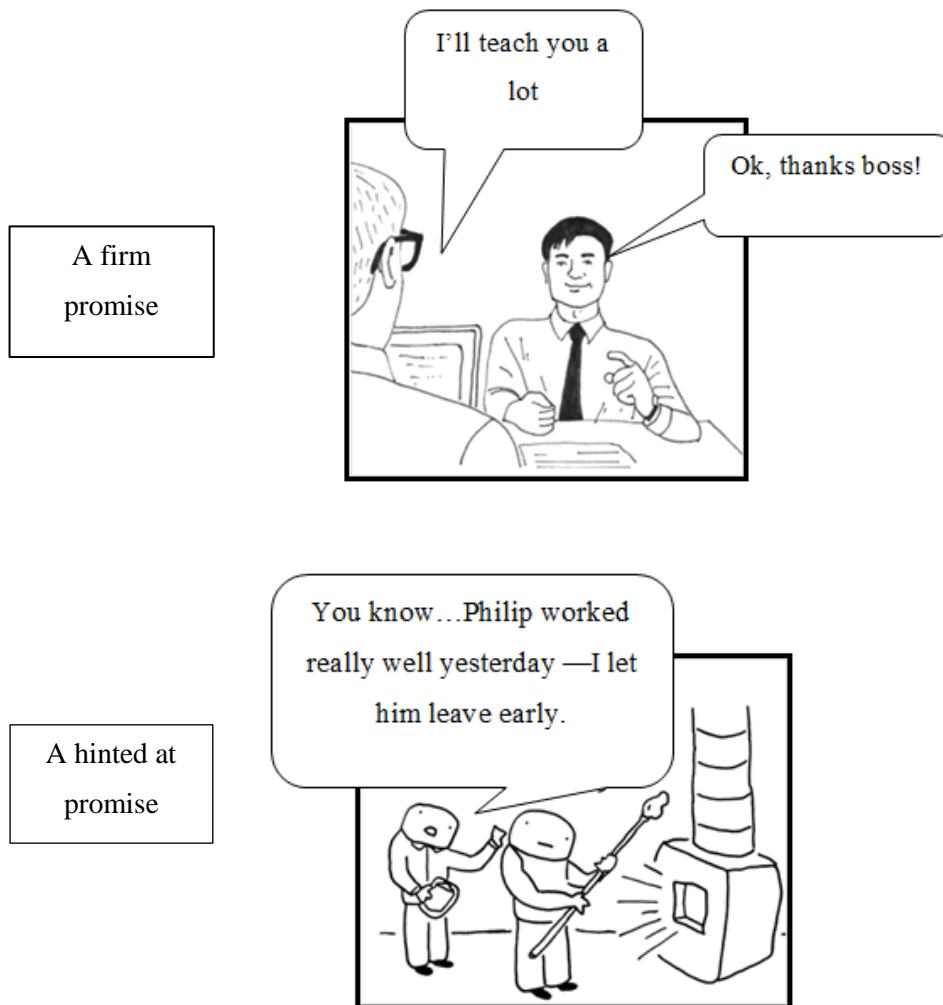
For the following questions you should rate different promises that can occur during vocational training in two different ways.

In column A you should mark whether, and in which way promises were made to you

In column B you should mark what actually happens in your firm.

Figure 1. Instructions for the PsyCoVo (translated by author)

Table 15. Examples of the PsyCoVo item generation from the interview segments

PC state	Interview Segment	PsyCoVo Item
Support / Help	Ah, yes, they help me, for example, with things when I don't know how I should do it, so with the products, with orders.	…there is someone I can turn to when I don't know how to continue
	Äh, ja, die helfen mir z.B. mit Sachen, wenn ich das nicht weiß, äh, wie ich das machen soll, also mit den Produkten, mit Bestellungen. (C; 00: 40:14)	*… es einen Ansprechpartner für mich gibt, wenn ich nicht weiter weiß.*
Fairness	Actually everyone is treated the same at ours, when they, of course […] bring, somehow this interest and the whole performance.	…everyone is treated the same, when they produce good work.
	jeder hat halt dieselbe Behandlung eigentlich bei uns. Wenn er natürlich[...] Wenn er natürlich irgendwo dieses Interesse und diese ganze Leistung bringt. (F; 00: 40:42)	*…alle gleich behandelt werden, wenn sie gute Arbeit leisten.*
Valued as a full member of the workforce	I feel, that I'm a trainee, I feel that, yes, I often feel very used.	…I am there to be used
	ich fühl, dass ich Azubi bin, ich fühl dass, ja, ich fühl mich auch oft sehr ausgenutzt. (D; 00:25:36).	*…ich da bin, um ausgenutzt zu werden*
Learning	But the Master craftsman explains a lot.	…they will explain a lot of things to me.
	sondern der Meister erklärt viel. (F; 00:02:39)	*…die mir viele Dinge erklären werden.*

Note: The original interview segment and the original item are shown in italics. The table also presents an English translation of the item and interview segment the item is based on.

A total of 29 items were generated in this way: five items made up the *support* scale; six items constituted a *fairness* scale; five items made up the *valued member of the workforce* scale and 13 items for a larger *learning and teaching* scale. The learning and teaching scale was larger than the other scales as it was the major theme emerging from the interviews. This scale was generated in sub-scales with seven items for a *learning by doing* sub-scale including two *mistakes* items and six items for a *learning centred* sub-scale. For the German version of the scale and all of its items, please see Appendix 4.

6.6.3   Piloting: Cognitive interviews

The PsyCoVo measure and its accompanying instructions were pilot tested using a cognitive interviewing approach. Cognitive interviewing is the process of administering draft questions and collecting information that is additional to the question responses (Beatty& Willis, 2007). We used the techniques of thinking aloud and probing (Beatty & Willis, 2007; Prüfer, & Rexroth, 2000; Presser et al., 2004). The pilot sample was made up of eight vocational trainees who were learning various professions and who were recruited through word of mouth. An interviewer (either me or a research assistant) presented the trainees with the instructions and the scale and the trainee was asked to fill in the scale whilst thinking out loud. In addition the interviewer had a number of prompt questions for the trainee in order to illicit information relating to the ease of use of the scale, and the participants' understandings of the items and the column structure of the scale.

From this cognitive interviewing it was clear that a number of items needed to be slightly re-worded to aid comprehension and a more distinct formatting style was used. In addition a sentence was added to the instructions which directed participants to fill the scale out item by item and not column by column, and to answer the second column question relating to what actually happens at work even if no promise was made for a particular item. These slight changes were made prior to rolling out the scale within a larger cross sectional questionnaire study (see chapter 7). Unfortunately, due to the vocational school holidays acting as a time restraint, pilot testing the scale on a large sample of trainees so as to determine the validity and reliability of the measure prior to its inclusion in the cross sectional study was not possible. Nevertheless, I carried out a reliability analysis and a factor analysis on the measure as a first analysis step in the cross sectional study before including the scale in any further analyses. The results of these checks are presented in the method section of the cross sectional study in chapter 7, in order to keep them in context alongside the details of participants and the other scales included in the test battery.

In conclusion, the interview data was used to create a pool of 29 items for inclusion in a scale specifically for measuring the state dimensions of German vocational trainees' PC deals. The resultant items covered four state dimensions of PCs which were identified as being particularly relevant to vocational trainees. These are supportiveness, fairness, being a valued member of the workforce and learning. The instrument measures whether or not particular promise items have been made by the PC partner, and whether these were implicitly or explicitly made. The instrument also measures to what extent these items actually occur in the trainees' workplaces. A report of how this 29 items pool was reduced to make up the final version of the scale used, and information about the scale's properties are outlined in section 7.2.2.3 in the following chapter.

7 Study 2: Cross Sectional Study

7.1 Introduction and Hypotheses

Being a vocational trainee in the dual training programme is not always easy (see study 1, Chapter 6). Along with the daily struggles that face us all at work, trainees also need to socialise into the job and job field, learn to communicate effectively with their trainers and colleagues, and learn sufficient job content in order to pass yearly assessments and a final exam. At the same time the trainees have their own personal goals to contend with and their domain specific goals concerned with their training. Combined, these issues can become challenging for some youngsters. Figures from the German Federal Institute for Vocational Training indicate that a large number of trainees quit before completing the course. According to the most recent figures up to 25% of a cohort leave their training before the end (BIBB, 2016). This amounted to 143,000 young people in 2014. This exodus is costly to the firms, in both monetary and organisational terms (see Figure 14). It is also costly for the vocational trainees, in terms of the effort involved in readjusting to a new situation after quitting, finding a new training position or alternative schooling, and also for the possible longer term implications that quitting may have on their futures, including an incomplete training which may look detrimental on their CVs.

Investigations into reasons for this high attrition rate are few and far between. Nevertheless, in a piece of independent research of approximately 2000 trainees, the reasons given for quitting were twofold. The most prevalent reason for quitting was that the trainees' expectations of the job were not fulfilled. The second largest reason was having problematic social relationships with superiors and colleagues (Azubi.report, 2014, 2016). In this study I go some way in investigating both of these reasons.

Firstly, our choice of vocation is important in achieving our personal goals as it is: "*A person's attempt to find that work situation which will maximize his chances of achieving the goals which are important to him*" (Astin & Nichols, 1964). In chapter 3 we learned that young people who are transitioning from school to work set themselves work goals even before starting the job (Dietrich et al., 2012) and non-fulfilled expectations are a main reason for trainees to quit. Trainees presumably expect to be able to achieve their important personal work goals at work. If this is not the case, lowered mood, lack of motivation, and reduced well-being may result. In this study I use the framework of the Telenomic Goals Model of Well-Being (Brunstein, 1999, 2003, see Figure 9) to investigate how attainable the vocational trainees believe their work goals to be, their commitment levels towards their goals and the progress they report making towards them. I investigate these three variables as individual features which are antecedents to various well-being and work attitude measures. I also investigate the relationships between these predictors. In my research framework which is presented in Figure 25, this line of investigation is labelled G1.

Secondly, healthy relationships at work are important in retaining trainees (Azubi.report, 2014, 2016). I investigate the relationship between a trainee and their trainer through the lens of the psychological contract. The PC is an explanatory framework for the employment relationship (e.g., Conway & Brinner, 2005; Rousseau, 2000; Shore & Tetrick, 1994a) which can be used to understand employee behaviours and attitudes. A vocational trainee's PC is their understanding of the promissory exchange relationship between themselves and their training organisation. It is very likely that the main contract partner in this exchange is the vocational trainer. I view the PC as a dynamic environmental feature that can either help or hinder the trainees' goals by making the goals more, or less attainable in the work situation. This line of investigation is labelled SO2 in my research framework (please see Figure 25).

In this cross-sectional study, I step away from the macro-level of the previous interview study (see Chapter 6), and widen the investigation into more generalizable terms. My overarching aim is to investigate individual and work context factors which could make an impression on vocational trainees' well-being and work attitudes. I focus on the constructs of the psychological contract and personal work goals and their roles in these young peoples' working lives. A secondary aim is to assess the properties of the newly developed PsyCoVo scale (see Chapter 6) and two further scales which were made specifically for this study (meaning at work, and clarity of PC contract), and to amend them appropriately for use in this and future investigations.

I broadly defined three areas of interest for this study resulting from a thorough literature review. These are, individual features, work context features and outcomes. The individual features of the vocational trainees which I explore are their personal work goals. I also include and control for the demographics of age and gender. For work context features I decided to investigate how supported by the trainers the trainees feel in relation to their personal goals. I study the psychological contract, with its focus on relationships in the workplace, as a work context feature likely to impact upon the trainees. This includes promises made, and promises kept or broken, and how clearly the PC terms are set out. The outcome variable for this investigation, these are split into two categories, well-being (general and work domain) and flourishing measures — which in this study include SWL, job satisfaction, and meaning at work, and work related attitudes and behaviours, namely trainee's trust in their trainer, OCBs and intention to quit. These links are outlined in my measurement model which is presented in Figure 25 which I refer the reader to when appropriate.

I will now turn to the hypotheses which I have chosen to tackle. Please note that an in depth literature review was presented in chapters two, three and four, with the theoretical framework of the empirical studies presented in chapter five (Figure 25). To avoid unnecessary repetition I will therefore only briefly outline key research findings surrounding the hypotheses behind the investigation and direct the reader to these chapters for a more in-depth literature review.

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7.1.1 Personal Work Goals

In this study I investigate vocational trainees' personal work goals as a motivational predictor of work attitudes, behaviours and well-being outcomes (path G1 on my measurement model, Figure 25). Past research has highlighted the positive relationship between making progress towards personal goals and subjective well-being (e.g., Klug & Maier, 2014; Maier & Brunstein, 2001; Sheldon & Elliot, 2000; Brunstein, Maier & Djargel, 2007, see section 3.1.1 for a discussion on goal progress). When looking at progress towards personal work goals, however, the results concerning well-being and work attitudes are less clear, with some studies indicating a strong association between progress towards work goals and well-being measures (Duffy & Lent, 2009; Harris et al., 2003), and others showing limited evidence of such an association, or none at all (Creed, Wamelink & Hu, 2014). It is not clear why the links between goal progress and well-being are more ambiguous in the domain of work than in a general domain. I investigate this link in the vocational trainee population, and hope to be able to go some way in clarifying the inconsistencies. I base my investigation on the Telenomic Goals Model of Subjective Well-Being (Brunstein et al., 1999; Brunstein & Maier, 2002; Brunstein, Maier & Djargel, 2007; See Figure 9).

7.1.1.1 Personal Work Goal Commitment, Attainability and Progress

The Telenomic Goals Model of Well-Being (Brunstein et al., 1999; Brunstein & Maier, 2002; Brunstein, Maier & Djargel, 2007) emphasises the impact that the interplay between personal goal commitment, attainability, progress and the motive congruence of the goal has on an individual's well-being. The model proposes that being committed to a goal will lead to increased goal progress, which will lead to an increase in satisfaction levels. Work goal progress is thought to be a mediator between goal commitment and satisfaction. Furthermore, goal attainability is put forward as a moderator in the link between goal commitment and goal progress. Individuals highly committed to their goals, experiencing high goal attainability have been found to display positive changes in their well-being over time. On the other hand, individuals who are highly committed to their goals who experience low goal attainability display lower well-being (Brunstein, 1993).

Indeed alongside Brunstein's studies looking at the interaction between commitment and attainability, evidence from traditional and more recent studies do support the various direct links in Brunstein's model (1993). For example, being committed to personal goals has been found to be an important antecedent for individuals' goal progress and well-being (Wofford, Goodwin & Premack, 1992; Sheldon & Kasser, 1998; Klein, Wesson, Hollenbeck, Wright, & DeShon, 2001; Holding, et al., 2016). A lack of goal attainability has been linked to reduced goal progress and has recently been studied in relation to action crises (Ghassemi, Bernecker, Herrmann, & Brandstätter, 2017; Holding et al., 2016) An action crises occurs when individuals in inopportune situations for their strivings find themselves in a position where achievement of their goal no longer becomes feasible. At this point they must

decide whether to disengage from their goal or continue to strive in the face of obstacles. A lack of personal goal attainability has been linked to reduced goal progress and ultimately goal disengagement, but also directly to various well-being outcomes in such as increases is depression, anxiety and stress symptoms and decreases in job satisfaction (Ghassemi et al., 2017, Holding et al., 2016; Stefanic, Iverson, Caputi, & Lane, 2016; Pomaki, Karoly & Maes, 2009; Roberson, 1990).

Although Brunstein has found positive associations between goal progress and well-being (Brunstein, 1993; Brunstein & Maier, 2002; Brunstein, Maier & Dargel, 2007). In the occupational domain the results are varied when looking at the impact that work goal progress has. Wiese and Freund (2005) and Pomaki, Karoly and Maes, (2009) found that work goal progress alone was not associated with occupational well-being over time, but only when they were moderated by goal cognition. However, Harris et al. (2003) found work goal progress to be associated with increased well-being at the end of the working day. This was especially the case with important work goals. Personal work goal progress has also been found to be related to increased job satisfaction (Pomaki, Maes & ter Doest, 2004), and to increased OCBs (Greguras & Diefendorff, 2010) whilst career goal progress was found to be negatively associated with workers' intentions to leave their firm in a sample of managers (Weng & McElroy, 2012). But what about those workers who still have to complete their training in order to become qualified? How does progress towards their personal work goals impact upon their satisfaction levels and work attitude? And, are work goal attainability and work goal commitment antecedents to work goal progress in vocational trainees?

I want to test Brunstein's (1993; Brunstein et al., 2007) model on a sample of vocational trainees as personal goals are thought to be of particular importance in terms of healthy identity development and well-being in adolescence (Brandstätter & Herrmann, 2014). As I am interested in the work setting I focus this investigation on domain specific personal goals relating to work, that is personal work goals and general and domain specific measures of well-being and job attitudes.

As a preliminary step I will test whether vocational trainees' work goal commitment and attainability are positively associated with work goal progress (see Hypothesis 1). I will then go on to test a fuller model. I am interested in whether work goal progress is a mediator in the link between work goal commitment and traditional well-being and work attitudes namely SWL, job satisfaction, OCBs and intention to leave (please see section 3.4.2 in chapter 3 for an overview of well-being measures in occupational domains). I also wish to test whether the link between work goal commitment and progress is moderated by how attainable the trainee believes their work goal to be. Although Brunstein includes a third moderator variable in his model of well-being, motive congruence (see Figure 9), I will not include this in the analysis as it is outside the scope of this study. Here, I choose to focus on work goal commitment, work goal attainability and work goal progress as three possible antecedents

to occupational flourishing as measured in this study i.e. increased SWL, job satisfaction, meaning at work, OCBs and decreased intention to leave.

However, I do want to test this model with a further well-being indicator — meaning at work. No research to date has investigated the links between personal work goals and how meaningful workers find their jobs to be, although there has been a call for research into this area of eudemonic well-being (Mayseless & Keren, 2014). I wish to respond to this call as our personal goals are said to give our lives meaning and provide a structure for us to live our values by (King, 2008; Klinger, 1977; Little, 1989, 2000a; 2000b; 2007; Lüdtke, 2006, Wiese, 2007). In the same way, I believe this is also likely to be true in the work domain. Commitment to and progress towards our personal work goals will likely provide our working lives with meaning. I wish to test whether this is the case in vocational trainees.

Hypothesis 1: *For vocational trainees personal work goal attainability and personal work goal commitment are positively associated with personal work goal progress.*

Hypothesis 2*: For vocational trainees work goal commitment will be associated with changes in SWL, job satisfaction, meaning at work, OCBs and intention to leave, through the mediator of work goal progress. The link between work goal commitment and work goal progress will also be moderated by the extent to which the trainees feel their personal work goals are attainable. High scores in personal work goal commitment and personal work goal attainability will lead to increased goal progress whilst high scores in commitment and low scores in attainability will lead to decreased progress.*

7.1.1.2   Trainer Support for trainees' goal

A facilitative environment is thought to increase workers' chances of progressing towards their chosen goals and increasing their general and domain-specific well-being (Pisanti et al., 2016, Maier & Brunstein, 2001; ter Doest, et al., 2006; Pomaki et al. 2004; Duffy & Lent, 2008; Lent & Brown, 2008). To be facilitative, a workplace should include goal- and efficacy-relevant environmental supports (Duffy & Lent; 2008). As vocational trainees work so closely with their trainers together I propose that the trainer themselves can be seen as an important feature of the working environment that can either support or hinder a trainee's striving towards their personal work goal (path SO2 in my measurement model; see Figure 25). Studies have shown the importance of having support for individuals' personal goals from significant others (Biringer et al., 2016; Diener & Fujita, 1995, Orehek & Forest, 2016; Ruehlman & Wolchik, 1988) please see sections 3.1.2.2 and 3.5.2.2 in Chapter Three for a detailed overview). Having partners who support one's goal strivings has been linked to increased satisfaction and mood, and leads to more progress towards the goal (Brunstein et al., 1996; Duffy & Lent, 2009; Gray & Coons, 2017; Jokisaari & Nurmi, 2005; Orehek & Forest, 2016). In the work domain this is also the case, with increased goal support for workers' important

personal goals being associated with increased job satisfaction and decreased burnout, depression, and somatic complaints (Pomaki & Maes, 2006). No studies to date investigate the effect of support for personal work goals in the trainee-trainer dyad, but it follows that trainer support for their trainees' goals, or lack of it, will have an impact on the young people. In interpersonal relationships in the workplace trust is an important feature between supervisors and their subordinates (Guest, 2016; Hauser et al., 2016; Lapointe & Vandenberghe, 2016). Increased support from vocational trainers is also likely to increase the extent to which the trainees trust their trainers. I expect the amount of support shown by the trainer for the vocational trainees' work goals to interact with work goal commitment. I expect this interaction to have an impact on how satisfied the trainees feel, and how positive their attitudes and behaviours are regarding their work. I also expect the vocational trainees to have an increased level of trust in their trainers when they are highly supported in their goal pursuit by their trainers.

Hypothesis 3: For vocational trainees there will be an interaction between their personal work goal commitment and the extent to which they feel their personal work goals are supported by their trainer. This interaction will predict changes in satisfaction with life, job satisfaction, meaning at work, OCBs intentions to leave the training firm and the amount of trust they have in their trainers. High scores in personal work goal commitment and low scores in trainer support of personal work goals will lead to decreased well-being, OCBs and trust in trainer, and increased intention to quit.

7.1.2 Psychological Contracts: a Dynamic Social Context Feature that Impacts Well-Being

At work, agreements are made between an employee and employer, or in our case vocational trainees and their trainers, relating to contributions to be made. These agreements or promises are the basis of the psychological contract which frames the exchange relationship. PCs are a type of promissory contract, characterised by a number of implicit or explicit promises of inducements made to the employee in exchange for them fulfilling their obligations to the firm (please see chapter 4 for a thorough overview of psychological contract theory and research). The psychological contract contains a number of different promissory elements which are either kept or breached (c.f., Rousseau, 2001; De Wang & Hsieh, 2014; Bal et al., 2017). These promises can be made implicitly or explicitly to the employee and, if breached, have been seen to impact negatively upon workers' behaviours at work, job satisfaction levels, mental and physical well-being, trust in their organisation and work performance (Conway et al., 2011; De Wang & Hsieh, 2014; Lapointe & Vandenberghe, 2016; Rayton & Yalbik, 2014; Reimann & Guzy, 2017; Rousseau, 2000; Zhau et al., 2007).

I view the PC as a work context feature in which the vocational trainees have to navigate their working lives. This is a feature of their working environment which I believe will directly and negatively impact on the trainees' flourishing, if PC breaches were to occur (see path SO1 in my measurement

model, Figure 25). Firstly, as PC theory has not been tested in a population of vocational trainees before, I will start by analysing the main elements of the vocational trainees' psychological contracts. These are: promised inducements, the actual practice in the firms, and broken promises (the percentage of promises made to the trainees that are broken). As there is some contention in the literature pertaining to the predictive power of PC promise breaks over the actual delivered inducements in the firm (Arnold, 2006; Conway et al., 2011; Guest & Conway, 2009, Lambert et al., 2003; Montes & Irving, 2008; Montes & Zweig; 2009) I will check this as a preliminary step in the inquiry. I investigate the predictive power of promise breaks in a population of vocational trainees on levels of well-being, work attitudes and attitude towards the trainers. Does experiencing broken PC promises have a negative impact on the vocational trainees' flourishing at work over and above the effects of what is actually delivered by the firm?

Hypothesis 4: For vocational trainees, the higher the percentage of PC promises made to them that are broken, the lower their SWL, job satisfaction, meaning at work, OCBs and trust in trainer, and the higher their intentions to leave the firm will be. This effect will remain when controlling for actual delivered inducements in the firm and the amount of promises made.

7.1.2.1   PC clarity as an antecedent to promise breaks.

Often with academic papers focusing on breaches of PCs, recommendations for how to decrease any relationship misunderstandings between employer and employee and prevent and deal with breach situations is to form open and very clear lines of communication with a clearly defined and well-developed PC (Reimann & Guzy, 2017; Morrison & Robinson, 1997; Bordia et al., 2008; O'Leary-Kelly et al., 2014). This recommendation, however, is at present unproven; there are no studies which investigate this idea of clarity and completeness in PCs. Indeed, there is very little literature pertaining to any antecedents of PC breaches (Vantilborgh et al., 2016). At present it is unclear what effect having an employee with a well-defined PC may have on the employment relationship. I wish to address this point and to test whether PC clarity is really an antecedent to reduced PC breaches (path PC1 on my measurement model, Figure 25) . If the recommendations are correct, then trainees with more clearly defined PCs will present with a lower percentage of promise breaks in their PC deals. This, as a consequence, should lead to a healthier relationship between trainer and trainee with the trainee trusting their trainer more (Guest, 2016), and increased satisfaction levels and healthier attitudes towards their work than those with less clearly defined PCs (c.f. O'Leary-Kelly et al., 2014; Rayton & Yalabik, 2014) (path SO1 in Figure 25).

Hypothesis 5: For vocational trainees a more clearly defined psychological contract will lead to higher satisfaction with life, job satisfaction, meaning at work, OCBs and trust in trainer, and lower intentions to leave the training firm through the mediator of percentage of PC promise made that are broken, with lower percentage of breaks leading to increased flourishing at work.

7.1.2.2   Promise of employment

I learned from the interview study (see chapter 6) that there is a pre-occupation in the vocational trainee community with whether they will be taken on by the training firm at the end of the training period. To my knowledge no studies have investigated the impact of this desire on the well-being and work attitudes of vocational trainees. It is likely that being taken on at the firm is a part of many vocational trainees' PCs, with trainers promising future employment if certain criteria are fulfilled by the trainee, such as reaching a particular grade on the final exam, being able to work independently, or being able to perform a particular skill or duty. I will investigate the specific promise of being taken on by the firm to see if this promise directly impacts upon well-being, attitudes, and relationships at work and whether the desires of the trainee in terms of being taken on, act as a moderator in this link. I predict that having a promise of employment after the vocational training had finished would lead to increased well-being and job attitude measures especially if the vocational trainee wanted to work at the firm at the end of their training. If made, the promise of future employment is part of the content of the PC and its direct link on the vocational trainees' well-being is depicted through path PC2 in my measurement model (see Figure 25).

Hypothesis 6: For vocational trainees, being promised a position at the end of the vocational training period is associated with increased satisfaction with life, job satisfaction, meaning at work, OCBs and trust in trainer and decreased intentions to leave the training firm especially if the trainee wishes to work there when the training has finished.

7.1.3   Psychological Contract Breaks Create a Non-Facilitative Personal Work Goal Environment

Little (2006) emphasises the need for internal and external features to maintain their integrity during goal striving. In an occupational training situation I propose the psychological contract as one such external feature of the working environment that, if not kept stable, is likely to impact upon vocational trainees and their personal work goal pursuit (path SO2 in my measurements model; see Figure 25). We make and choose our goals based on our situations at that time, and within the contextual framework that is afforded us. If a PC is breached, an unexpected working situation may result that is no longer integrally sound for the trainees in terms of their goals. A change in the framework in which goals were chosen may reduce the attainability of the goal due to the new situation. For example, a broken PC promise is known, to raises problematic issues such as a lack of control and a lack of support (e.g., Aselage & Eisenberger, 2003; Conway & Briner, 2005; Shore & Tetrick, 1994a) which have also been found to be indicative of a situation that is non-facilitative in terms of goal attainability (Biringer et al., 2016; Maier & Brunstein, 2001; Duffy &Lent, 2008).

With the last hypothesis of the study I wish to discover whether PC promise breaks have negative implications for the attainability of vocational trainees' most important personal work goals and, as a

consequence, negatively influence the progress that they are able to make on their goal and through this, lead to less flourishing at work. Do broken PC promises create a non-facilitative environment, making goals less attainable? And what are the consequences of this in terms of goal progress and the resultant impact on satisfaction, work attitudes and the trust in the trainer-trainee relationship?

Hypothesis 7: For vocational trainees the higher the level of discrepancy between what is promised and delivered in their PCs (percentage of broken promises) the lower their SWL, job satisfaction, meaning at work, OCBs, and trust in trainer, and the higher their intentions to leave will be. These associations will be mediated firstly through the amount of work goal attainability the trainee reports and secondly through work goal progress. Higher percentages of promise breaks will lead to lower goal attainability which will lead to lower work goal progress which will lead to lower flourishing at work.

7.2   Method

7.2.1   Participants and Procedures

7.2.1.1   Participants

Participants were 475 vocational trainees who were enrolled in one of four vocational training schools in the county of Nordrhein-Westfalen in Germany. In total, the trainees represented 25 class groups and were learning 21 different jobs from various different job sectors. In addition a further 5 trainees recruited independently filled out an online version of the questionnaire. The sample was made up of 45.2% females. The trainees were between the ages of 16 and 31-years old, with a mean age of 19.9, with 70% of the trainees being between the ages of 18 and 21. From the sample, 240 (50.4) trainees were in the first year of their training, 123 (25.8%) in the second year and 112 (23.8%) in the third and final year of training. The majority of the trainees were born in Germany with 13% being born in another country. Of the sample 33% had a family with a migration background. This demographic compares well to the nation's and county's averages, as the newest figures show that 31.1% of all vocational trainees in Germany starting in 2104 had a migration background and that trainees in Nordrhein-Westfalen had a mean age of 20.2 years old (BIBB, 2016). Originally 478 trainees filled out the questionnaire, however three participants were not included in the study one due to obvious language difficulties during the testing, one as they had ticked response number 1 on every item, and one as when assumption testing for outliers the Mahalinobis distances they reached a predictor value greater than 18 a conservative cut-off point for a data set of this scale.

7.2.1.2   Procedure

Data collection was carried out at the vocational trainees' vocational schools which they visited once a week. Testing was carried out in the five schools in class groups of 20-25 trainees. Beforehand I had instructed a research team on the method of delivery of the questionnaire and provided instructions to

be read out in front of the class to ensure the same conditions for each class. The vocational trainees were provided with the questionnaire and guided through the first question (personal code generation) as a class so as to ensure the trainees all had a viable personal code that would allow a coupling of the results if the trainee were to participate in the second study in the series (see chapter 8). Each data collection was carried out in a single 45 minute school session. Most trainees managed to finish the questionnaire within the allocated time; however a small number of trainees (4%) did not manage to finish the last measure of trust in trainer. Data collection took place in May 2011.

7.2.2 Measures

7.2.2.1 Personal Work Goals, Satisfaction and Work Attitude Measures

Goal generation

Personal work goals were measured using an ideographic-nomothetic approach (see section 2.1.5.2). Firstly, vocational trainees were instructed to generate three personal work goals which they were striving for within their vocational traineeships. They were informed that personal work goals included things that they wanted to *achieve*, *change*, and *experience* within their traineeships, as well as self-set *assignments* which they wished to experience and *occurrences* they wish to bring about. The instructions encouraged them to think of goals that were middle-term, reaching to the end of their vocational training, and not individual short term tasks to complete such as "tidying my desk". Information was gives as to what personal work goals are and five examples were given of personal work goals relating to these 5 key words (e.g., I want to become more independent). The sentence tag, "I want to …/ I would like to…" was given as a prompt for the participants to complete when generating their goals. After generating three personal work goals, participants were asked to choose their most important one which they then rated on a series of items.

Goal attributes: commitment, attainability and progress.

Participants were asked to rate their most important work goal on 14 items which tested how committed they were to the goal, how attainable they believed the goal to be in their current situation, and how much progress towards their goal they were experiencing. The items for these three scales originated from Brunstein (1993, 2001). The original German version of the scales were requested from the author and is presented in Appendix 5. All three scales were rated on a 5-point scale spanning from "completely applicable" to "not applicable at all". Cronbach's alpha for the entire scale (after adjustment which is detailed below) was α=.84.

Personal work goal commitment

Personal work goal commitment was measured on a four *item* scale. Each item covered a different aspect of goal commitment: willingness, determination, urgency and identification. An example item

for willingness is, "*Even if it means a lot of effort, I will do everything necessary to accomplish this goal.*" Cronbach's Alpha for this sub-scale was α=.63.

Personal work goal attainability

Personal work goal attainability was measured on a scale covering three aspects of goal attainability. These are opportunity, control and support. An example item for opportunity is, "*My everyday life offers many opportunities for me to work towards this goal.*" Cronbach's alpha for this six item sub-scale with this sample is α=.57. Because of this low inter-item correlation one item measuring control was dropped, bringing the alpha up to a more acceptable reliability level α=.62. Thus, the final sub-scale included five items.

Personal work goal progress

Personal work goal progress was measured on a four item scale which tapped into two aspects of work goal progress. These are advancement and outcomes. An example item for advancement is, "*I have made a great deal of progress concerning this goal.*" Cronbach's alpha for the progress sub-scale was α=.78.

Trainer support for trainee's personal work goals

I adapted a scale by Brunstein, Dangelmayer and Schultheiss (1996) to measure trainer support for the trainees' personal work goals. The original scale measured social support between spouses for their personal goals. I modified the scale slightly by replacing "spouse" with "vocational trainer". This scale has also been successfully adapted by Duffy and Lent (2009) to measure social support for teachers' personal work goals. The scale assesses three dimensions of support with two items per dimension.

The three dimensions tested are: opportunity (e.g., my vocational trainer gives me many opportunities to work on this goal), responsiveness (e.g., my vocational trainer shows me that she or he has a lot of understanding for this goal), and assistance (e.g., my vocational trainer reliably assists in my attempts to accomplish this goal when I ask her or him to do so). The original German scale was requested from the author for use in this study which is presented in Appendix 5. Each item was assessed on a five point scale ranging from "completely applicable" to "not applicable at all". The Cronbach's alpha for the trainer support scale was α=.82.

Life satisfaction

Satisfaction with life was measured using a German language version (Maier, 2001) of the Satisfaction with Life Scale from Diener et al. (1985). This very popular scale has five items which are answered using a seven point response scale from strongly agree to strongly disagree (see Appendix 5). A

sample item is, "*In most ways my life is close to my ideal*." This scale reached high reliability scores with a Cronbach's alpha of α=.85.

Meaning at work

At the time of data collection there were no scales available for measuring how much meaning workers derived from their jobs. I decided to create a meaning at work scale for this project. Firstly, I adapted and translated two items from an "Engaging Work" subscale of a "Spirit at Work" scale (Kinjerski & Skrypnek, 2006). These items focused on a match between the work and the participants' values, and having a sense of meaning or purpose from the work. For example, "*I see a purpose in my work*". I also created two new items to add to these, one relating to life values and work, "*My work is connected to what I feel is important in life*", and a second item referring to meaning at work that is not connected to monetary gain, "*My job brings me more than just money*". The resultant four items were measured using a seven point response scale ranging from completely agree to completely disagree with higher points representing higher meaning at work (see Appendix 5). Within this sample the scale reached a very good reliability level of α=.89.

Intention to quit

The vocational trainees' intentions to quit the training job was measured using 4 items (see Appendix 5). The first two items was created especially for this study to measure trainees' intentions at the end of the training. For instance, "*Would you remain in your vocational training job, if it were offered to you?*" with response possibilities of yes, no, and yes but only if … with an open field for the respondent to enter their conditional term. The other two questions are items often used in occupational literature and relate to cognitions (Mobley, Griffeth, Hand, & Meglino, 1979) and plans (Hackman & Oldman, 1980) to leave the firm. An example item is "*Do you have concrete plans to quit your training within the next few months?*" Both of these items were dichotomous. High scores on this scale indicate high intention to leave. Cronbach's alpha for this four item scale is moderate α=.65.

Job satisfaction

I used the short version of the German job satisfaction scale (*Arbeitsbeschreibungsbogen, ABB*) by Neuberger and Allerbeck (1979) which asks participants how satisfied they are with seven aspects of their work such as their colleagues, their daily tasks and their pay. In addition there is an eighth item — a composite measure of job satisfaction where the trainees needed to state how satisfied they were overall with their work (see Appendix 5). All eight items were measured on a seven-point Kunin (1955) faces scale symbolizing very unsatisfied — ☹ to very satisfied — ☺. Kunin-type scales has been found to be affective in picking up on the cognitive and emotional facets of job satisfaction

(Brief & Roberson, 1985). This scale reached a reliability score of α=.85 which is considered very good.

OCB

Work behaviours of the vocational trainees was measured using a German Organisational Citizenship Behaviours (OCB) scale by Staufenbiel and Hartz (2000) called the FELA-S (*Fragebogen zur Erfassung des leistungsbezogenen Arbeitsverhaltens*). I chose three appropriate sub-scales of the FELA-S test for this study: altruism (Cronbach's alpha α=.72), conscientiousness (α=.67), and in-role behaviours (α=.81) (see Appendix 5). Each subscale originally had 5 items making the entire scale 15 items long but I removed the only reverse scored item in the in-role behaviours scale as it had very low correlation levels with the other items and I suspected it of bringing systematic error to the scale. This left 14 items in the scale. The answer possibilities were on a 7-point scale ranging from, "completely true" to "not at all true". Example items for the three sub-scales are as follows. For altruism, "*I help others when they are overloaded with work*", for conscientiousness, "*I am very careful to heed rules and instructions at work*", and lastly for in-role behaviours, "*I complete my allocated job tasks satisfactorily.*" The whole scale had a Cronbach's alpha score of α=.84.

Trust in trainer

I measured the amount of trust the trainees had in their trainers by using a scale by Robinson and Rousseau (1994) that measured the degree to which the employees trusted their employers (see Appendix 5). I amended the word employer to vocational trainer for this study. The response scale was a five-point scale where 1 was "strongly disagree" and 5 was "strongly agree". An example items is as follows, "*I think that my vocational trainer's intentions are generally good.*" The items were generated by Robinson and Rousseau by referring to the bases of trust identified by Gabarro and Athos (1976). I translated the scale into German and used a translation-back translation technique with a research assistant to ensure I had captured the items accurately. The reliability scores for this scale was very good with a Cronbach's alpha of α=.81.

7.2.2.2 Psychologcial Contract measures

Promise of Employment after graduating the Programme

The promise of employment score was a product of two items which I created (see Appendix 5). The first item asked, "*Does your firm want to take you on?*" Answer possibilities were yes, no, or I don't know. The second item asked about the extent to which this was promised or not, by asking why the trainees believed they would be taken on or not. Responses were "*because my trainer told me so*", "*because my trainer hinted at it*", and "*because I feel it is so*". A promise of employment was made if a trainer reported that they would be taken on and that this was promised or hinted at rather than them

just feeling it was so. This was coded into a dichotomous dummy variable, with a promise of employment or no promise of employment as responses.

Wish to be employed

I measured vocational trainees' desire to be taken on by the firms after the vocational training time had ended with one item (see Appendix 5). The item, "*would you like to stay in this firm after you have finished your vocational training*?" was dichotomous with a yes/no response.

PC clarity

To test how clearly the promises in the PC were imparted to the trainees I created a scale encompassing the themes from the codes of *clarity* and *incomplete* from the interview study (see Chapter 6; section 6.3.1). This is a four item scale with two items measuring how explicitly a trainer indicated what was expected of the trainee, and two items measuring how completely these expectations were imparted (see Appendix 5). An example item is, "*My trainer told me clearly what was expected of me.*" Responses are given on a four point scale from "agree" to "disagree". The reliability of this scale reached an acceptable level of α=.62.

7.2.2.3   Psychological Contract Measure for Vocational Trainees

Psychological Contract Measure for Vocational Trainees: Item reduction

The Psychological Contracts of the trainees were measured using a specially developed scale, the Psychological Contract Measure for Vocational Trainees (PsyCoVo). The item generation for this scale is detailed in chapter 6. In this section I will outline the reduction process to show how I comprised the number of items to make a more reliable scale, and present the reliability scores for the scale.

I developed a 29-item scale which measured the promises made to vocational trainees and what actually happens in four PC content areas, 1) learning, which was split into two sub-scales of learning-by-doing, and learning centred, 2) fairness, 3) support and help and 4) being a valued member of the workforce (please see Appendix 4). This scale was administered to the sample of 476 vocational trainees. I then carried out reliability checks and item reduction measures from factor analyses in order to trim down the scale to be a succinct and reliable measure for inclusion in the study. The PsyCoVo measure consists of two columns, a promise column, where the promises made are measured on a three point scale and an actual practice column with a four point scale. For the promises column the item stem is "*From the side of my training firm, it was promised or hinted at that*....." and the three responses were, "no promise", "it was hinted at" and "It was firmly promised or written down". High scores represent more concrete promises. For the actual practice column the actual occupational practices are measured. The item stem was, "*Actually at work...*" with possible responses ranging

from "not correct" to "correct" with higher scores representing more of the particular practice. This resulted in a two-part scale which means that factor analyses and reliability measures must be carried out twice, once for each column as they have different scale responses and measure different qualities of the PC deal. Decisions relating to item reduction were made bearing both scales in mind.

Firstly, the research assistants and I reported that during testing there were numerous queries from the vocational trainees relating to the negatively poled questions in the scale. There were four negatively poled questions in all, which were removed from the questionnaire. The sub-scale of being a valued member of the workforce contained three of the negatively worded questions leaving this sub-scale with only two items. This meant that the sub-scale represented a rather incomplete measurement of the content area of being a valued member of the workforce. For this reason the entire sub-scale was removed from the analysis leaving 23 items.

Before running a factor analysis I tested the promise data for its suitability. The Kaiser-Meyer-Olkin result was superb (Hutcheson & Sofroniou, 1999) at KMO =.95 and the Bartlett test of sphericity was significant at the $p<.001$ level χ^2 (253) = 3918.67 and so the data was deemed suitable for analysis. I then carried out a preliminary factor analysis with orthogonal rotation (varimax) on the 23 items on the promise column replacing missing data list-wise. Four components emerged with eigenvalues greater than Kaiser's criterion of 1, and together these explained 52.1% of the variance. The scree plot, however, indicated that the items loaded primarily on 1 factor and a parallel test (Patil, Singh, Mishra, & Donovan, 2007) indicated the same. Nevertheless, when looking at the items which loaded with more than 0.3 on the second, third and fourth factors with eigenvalues greater than 1, I observed that 5 of the 7 were from one scale, that of fairness, with the sixth item of the fairness scale loading moderately on both the first and second factors. This indicated that the items relating to fairness were conceptually different to the items loading on the larger first factor. At this point I carried out a preliminary factor analysis on the second column data — that is the data from the actual practice scale in order to decide how many factors to retain.

I also used varimax rotation for the analysis of the second column, the actual practice column. Again, the data was also considered viable for a factor analysis as the correlations between the items were sufficiently large and the sample size very good KMO = .99; Bartlett test, χ^2 (253) = 3875.52, $p<0.001$. For this analysis there were five factors with eigenvalues more than 1. The scree plot presented with one elbow indicating a two factor solution, and a second elbow indicating a possible four factor solution. I used a parallel test to further clarify the number of factors which indicated that a two factor solution would be the most prudent choice. Interestingly, when checking the items that loaded on each of the five factors with eigenvalues more than one, there were two distinct patterns. Factor two was associated with items relating to learning independently from the sub-scale of learning-by-doing. Factors three and four were associated with items from the fairness sub-scale. The scale of support and

help did not emerge from the data as an independent factor in either the promise or the actual practice scales.

I made the decision to run the two factor analyses again using a two factor solution in each case and also removing the help and social support scale from the analysis. I decided to remove this sub-scale for two reasons; firstly, I do measure the social support that trainers give their trainees for their personal goals in another scale within this dissertation which in some way covers the actual practice column data. Nevertheless this does mean that the PC promises of social support will not be analysed. Secondly, by removing the subscale I attempt to simplify and reduce the PsyCoVo scale to enable a clearer analysis of better delineated PC content which associates with particular factors. After removing the support and help sub-scale, the reduced version of the PsyCoVo consists of 18 items with the scales of learning (learning-by-doing and learning centred) and fairness.

I ran the factor analyses for the two columns of the PsyCoVo again using a two factor extraction method and orthogonal rotation (varimax). Again, the KMO scores were very good for both of the columns (promises, KMO = .94; actual practice, KMO = .90) and Bartlett's test of sphericity was also significant for both columns' data: promises, χ^2 (153) = 2946.16, $p<.001$; actual practice, χ^2 (153) = 2621.22, $p<.001$. Table 16 and Table 17 show the factor loadings over .40 after rotation for data the PsyCoVo scales. The items that cluster on the same components in the promises scale (Table 16) indicate that factor 1 represents promises in relation to learning whilst factor 2 represents promises in relation to fairness. In the actual practice scale (Table 17) clustering on factor 1 indicate actual organisational practice in relation to being fair and learning centred whilst the second component seems to represent the vocational trainees being able to be hands on in their learning including most of the learning-by-doing items.

The promises and actual practice columns of the PscCoVo generated different factor loadings for the items. However, in both cases the second factor extracted was in line with one of the sub-scales which I had generated from the interview analysis, namely fairness and learning-by-doing from the learning scale. Because of this and that removing items from one column would mean removing them from the other too, I decided to retain the remaining items and the structure of the fairness and learning scales which emerged from the interview data. I tested the reliability of the scales and found the following acceptable to very good alpha scores (see Table 18).

Table 16. Summary of exploratory factor analysis results of the PsyCoVo items on the promises scale.

Item	Item sub-scale	Rotated factor loadings	
		1 Learning	2 Fairness
I will be taught a lot throughout the whole of the vocational training.	LC	.72	
They will help me to learn as much as possible.	LC	.72	
I am allowed to do a lot myself.	LBD	.70	
They will explain a lot of things to me.	LC	.68	
I will receive feedback on my work.	LC	.67	
I am allowed to do tasks on my own.	LBD	.66	
I am allowed to try out a lot during the training.	LBD	.65	
I will receive positive reaction to my questions.	LC	.63	
It is not bad when I make mistakes as long as I learn from them.	LC	.61	
I can carry out the work myself not just watch it being done.	LBD	.60	
I get things from the company that I am entitled to.	F	.58	
I will be treated fairly.	F	.58	.44
I am allowed to repeat things until I can do them.	LBD	.57	
My tasks will get harder throughout the training.	LC	.50	
I will not have the same responsibility as a trained member of staff in the organisation.	F	.39	
I don't have to do more dirty work than others who work in the organisation.	F		.84
Everyone will be treated the same if they work well.	F	.32	.70
If I do overtime, I can get the hours in lieu.	F		.33
Eigenvalues		5.98	2.16
% of variance explained		33.19	12.01

Notes: F = Fairness; LBD = Learning-by-doing; LC = Learning Centred. Values of less than .40 have been suppressed in this table. For items with a factor loading less than .40 I have included the highest loading.

Table 17. Summary of exploratory factor analysis results of the PsyCoVo items on the actual practice scale.

Item	Item sub-scale	Rotated factor loadings	
		1 Fair & learning centred	2 Learning-by-doing
They will help me to learn as much as possible.	LC	.67	
I will be taught a lot throughout the whole of the vocational training	LC	.64	
They will explain a lot of things to me	LC	.63	
I will be treated fairly.	F	.60	.46
I will not have the same responsibility as a trained member of staff in the organisation.	F	.58	
Everyone will be treated the same if they work well	F	.56	
I get things from the company that I am entitled to	F	.56	
It is not bad when I make mistakes as long as I learn from them.	LC	.52	
I will receive positive reaction to my questions	LC	.51	.50
If I do overtime, I can get the hours in lieu	F	.51	
I don't have to do more dirty work than others who work in the organisation.	F	.46	
I will receive feedback on my work.	LC	.43	
I am allowed to repeat things until I can do them.	LBD	.41	
My tasks will get harder throughout the training.	LC	.39	
I am allowed to do a lot myself.	LBD		.82
I am allowed to do tasks on my own	LBD		.82
I can carry out the work myself not just watch it being done.	LBD		.73
I am allowed to try out a lot during the training.	LBD	.42	.49
Eigenvalues		4.30	3.53
% of variance explained		23.89	8.85

Notes: F = Fairness; LBD = Learning-by-doing; LC = Learning Centred. Values of less than .40 have been suppressed in this table. For items with a factor loading less than .40 I have included the highest loading.

Table 18. Reliability testing of the PsyCoVo scales

Scale / sub-scale	Number of items	Cronbach's Alpha	
		Promises	Actual practice
Learning	12		
Learning-by-doing	6	.83	.75
Learning centred	6	.82	.77
Fairness	6	.68	.70

Percentage of promises made that are broken

For this study I used a percentage score to measure the broken promises. This showed the percentage of promises that were made to the vocational trainee which were broken. I calculated this percentage on an item level. If a trainer reported being made an implicit or explicit promise on a particular item of the PsyCoVo scale (column A, responses 2 or 3), and also reported that this had not been the actual practice at work (Column B, responses 1, 2, or 3), I scored this item as being a broken promise. I then calculated the number of broken promises as a percentage of all of the promises that were made to the trainee.

7.2.3 Analytic strategy

I content analysed the vocational trainees' most important work goals by using a simplified version of qualitative content analysis as outlined by Mayring (2005, 2015; please see Chapter 6 for a thorough overview of content analysis). For the quantitative analysis I chose to conduct the hypothesis testing using a series of simple, mediated, moderated and double moderated ordinary least squares regression analyses. For the mediation, moderation, conditional processing analyses and double mediation models I followed Hayes's (2013) recommendations of using bootstrapped samples. In general I used 1000 bootstrapped samples unless there were computational issues requiring 5000 samples. I used Hayes's (2013) computational tool PROCESS for the analysis.

I dealt tested the missing values of the study variables with Little's Missing Completely at Random (MCAR) test (Little, 2014) and found the missings to be completely random with a non-significant χ^2. The results were as follows χ^2 (149, N = 476) = 161.45, p =.23. The missing data ranged from 0.4% to 2.9% of the total results which is within the accepted range. One variable (trust in trainer) had a slightly higher missing variable score of 4.2% of the results. This is slightly high but is still below the 5% mark which Schafer (1999) asserts to be inconsequential to the analyses. Because the missing scores were found to be missing at random, I replaced the missing values with the mean scores using expectation maximisation for the hypothesis testing in order to utilise the data set to its fullest.

7.3   Results

7.3.1   Content Analysis: Most Important Personal Work Goal

7.3.1.1   Vocational Trainees' Personal Work Goal Content

I started the analysis by looking at the vocational trainees' most important work goals. Segmentation into analytic units was mostly unnecessary in this analysis, as each goal tended to be a single unit. There were only a few goals which had two parts to them and so although these goals were kept as one unit for clarity, each part of the goal was coded individually.

I started by creating a deductively driven code manual from the literature. I chose to use categories from a content analysis of the personal work goals of young managers as a base for my analysis (Hyvönen et al., 2009). Although the trainees in this study were not in management, this is one of the few papers on work goals which present a category system for personal work goals in a relatively young population group of employees. This study identified 7 main categories 5 of which seemed as though they would also be applicable to the vocational trainees. These were: *Competence*, *Progression*, *Well-being*, *Job security*, and *Finance*[64]. I used these as a starting point to my analysis and entered them as meta-categories into a code manual which can be found in Appendix 6. I coded each goal into the appropriate mega-category and I inductively generated categories and codes under these as I carried out the analysis. I completed a code manual as I worked which describes the categories and codes and collates how many goals were in each code (see Appendix 6 for descriptions of the meta-categories, categories and codes). I coded all of the goals in this way and then reviewed them thoroughly a second time. As the coding was relatively uncomplicated, with the goals being easily sorted into appropriate codes, I did not enlist the help of a second rater.

I coded the vocational trainees' most important work goals into 26 different codes under the 5 deductive mega-categories identified by Hyvönen et al., (2009) and needed to inductively create a further meta-category called *Relationships at work* to encompass all of the vocational trainees' goals. As the Mega-category *Competence* was so large with various discernible and different themes, I decided to inductively create 5 categories under it. This is the only Meta-category with three levels of categorisation. The meta-categories, categories and codes alongside their frequency scores are presented in Table 19 below. In addition, the code manual that I created for this analysis is presented in Appendix 6. As the content of the vocational trainees' goals is not the focus of this study, I will only briefly outline the major finding to emerge from this content analysis and advise the interested reader to consult the code manual and Table 19 for more information.

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[64] When describing the findings of the content analysis I will use italics to indicate a mega-category, category or code.

Table 19. Qualitative content analysis of the vocational trainees' most important personal work goal

MC	C	Co	*n* analytical segments
Competence			**358**
	Become Qualified		
		Finish training successfully / pass tests	113
		be good at the job	14
		Performance - be the best	7
		shortened training	5
		success	5
	Personal Growth		
		Gain independence	53
		Gain experience	30
		gain confidence / become surer	16
		personal development	12
		take on responsibility	7
		Own Project	5
		Engagement-effort	4
	Learning		
		Knowledge acquisition	30
		Learn specific skill	11
		Learn complete job	4
	Be prepared		
		well prepared for future /future job	31
		well prepared for final test	17
Job security			**65**
		Job Security - Get job	33
		Job Security- Be Taken on	22
		Job security- secure future	10
Progression			**37**
		Career Progression	37
Well-being			**19**
		Enjoyable work	7
		Earn respect / make a positive impression	9
		More free time	3
Relationships at work			**12**
		Relationships at work	12
Finance			**5**
		Finance	5
rest			1
Total			503

Notes: MC- Meta category, C -category, Co -code, *n* of analytical units - absolute number of analytical units per code

In all there were 503 goal segments which were distributed over six mega-categories, and 25 codes. By far the largest mega-category was *Competence,* which represented 72.2% of all of the total goal segments. This was not surprising, firstly as the vocational training programme, and therefore the vocational trainees' daily work is focused primarily on learning new competencies for use in the workplace. Predictably therefore, the trainees' strivings reflect this. Secondly, Hyvönen et al., (2009) also found *Competence* to be the largest category in their study of young managers so there is agreement between these two studies.

I found that the largest category under *Competence* was *becoming qualified* where codes focused on completing the training programme and the trainees becoming good at their jobs. This category included the largest code in the study of *finish training successfully / pass tests,* with 29% of the total goal segments fitting into this code. It seems that overall the vocational trainees are very much focused on completing their training programme successfully, and becoming good at their jobs. The second largest category under *Competence* was *Personal Growth* which includes codes related to personal work goals in more developmental areas such as *becoming more independent*, *gaining experience*, *increasing in confidence*, *taking on more responsibility* and having an *own project* to work on. The largest code in this category was *gaining independence* which, as I discussed in Section 3.2.1 is thought to be a typical goal during the adolescent years. An example goal from this code is to, "learn to work independently".[65] This finding is also supported by a study by Lüdtke (2006), who found independence to be a major theme in adolescents' personal goals.

The next largest category under *Competence* is *learning* which includes goals focused on *knowledge acquisition*, *learning specific skills* and *learning all aspects of the job*. An example of a trainee's knowledge acquisition goals is to, "*learn a lot and take as much knowledge away with me as possible.*"[66] As these trainees are immersed in a learning environment at work, again, it is not surprising that some of the adolescents' goals reflect this. Finally, the last category under the meta-category of *Competence* is *be prepared.* This included personal work goals which were concerned with the young people being preparation for their futures, namely, being prepared for the final exam and being prepared for their future jobs. An example of a personal work goal in this category is, "*to be as well prepared as possible for my permanent job in the firm.*"[67] I believe these preparation goals are rather unique to individuals facing a future transition. In the case of these trainees their next institutional transition point is at the end of their training, when taking the final exam and hopefully starting a job as a trained employee. Having a preparation goal for such a transition would presumably be a healthy strategy in dealing with this.

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[65] Selbständig arbeiten lernen

[66] Viel lernen und alles an Wissen mitnehmen, was geht

[67] So gut wie möglich auf meinen festen Job im Unternehmen vorbereitet werden

The second largest meta-category is that of *job-security*. I coded goals under this meta-category if they were related to gaining employment at the end of the training. The largest code here was that of *get job* followed by *be taken on*. An example of a taken on goal is, "*I want to be taken on after the vocational training.*"[68] This goal was also discussed by vocational trainees in the interview study (see Chapter 6) when discussing the terms of their psychological contracts. These *job security* goals and the *be prepared* goals share a common theme, that is a future orientation that extends beyond their current vocational training programme. In a content analysis study of 9th graders Salmela-Aro et al. (2007) found that 43% of the students had a future competence motivational orientation with more future work- education- and property goals than their peers and also had higher self-esteem than their peers. Being prepared, and concentrating on future job security goals then, may well be an adaptive strategy for these trainers.

Similarly, a further meta-category which could also be interpreted as being future orientated is *Progression*. The only code in this meta-category is *career progression* which describes personal work goals that were concerned with getting promoted, reaching a higher position or carrying out more training to further the trainees' career prospects. Two example goals in this code are, "*to apply my professional knowledge towards a veterinary-medicine university degree*"[69], and, "*to be very well trained so I can gain a higher position in firms*". Here, the trainees are aiming for increased success in the future, after having completed their vocational training course, using the training programme as a springboard to (in their mind) greater things.

The last three categories were relatively small in comparison to the others. I coded goals which were concerned with the vocational trainees' psychological and physical health under the mega-category *well-being*. Under this, the codes included goals relating to having an enjoyable and fulfilling job, and having enough holidays and free time to ensure a work-life balance. An example goal from this code is to, "*have fun at work and be fulfilled.*"[70] The third and final code in this category is *earn respect / make a positive impression*. I coded personal work goals into this code if they were related to impression management or the striving for respect. This is well illustrated by two of the trainees' personal work goals, "*I don't want to be seen straight away as being a "worse" worker Just because I am a trainee*"[71], and, "*to be valued as a worker*".[72] Although all new recruits need to prove themselves to some degree at work, it seems that the trainees need to deliberately go the extra mile, feeling somewhat stigmatised for their trainee status. I also picked up on this theme in the interview study (Chapter 6) under the code of "*full member of the workforce*". The last two meta- categories focus on

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[68] Ich möchte nach der Ausbildung übernommen werden.
[69] mein Fachwissen für ein Tiermedizinisches Studium einsetzen.
[70] Spaß bei der Arbeit haben und erfüllt sein
[71] Ich möchte nicht, nur weil ich Azubi bin, gleich als "schlechtere" Arbeitskraft angesehen werden.
[72] Als Arbeiter geschätzt werden

relationships at work, which mainly included goals about having positive relationships with their colleagues and superiors, and an example goal here is, "to get on with my colleagues."[73] Lastly, the meta-category of *finance* included only 5 goals, which were concerned with making enough or more money, an example of which is, "*I want to get a lot of money*."[74] This code is rather underrepresented in this sample of trainees, perhaps because the wages for vocational trainees are heavily regulated so there is little chance for fluctuations between trainees in the same branch. One final goal which was simply, "*Change*"[75] could not be placed in any existing category due to the lack of specificity as to what change the trainee was striving for, so I created a rest code for that goal alone.

In conclusion, I can say that the most prevalent personal work goals for vocational trainees focus heavily on successfully finishing the vocational training and making the transition to securing a good permanent job after the training has ended. Other main themes include personal and character development on the path to becoming an adult, most importantly becoming more independent, but also increasing levels of confidence, responsibility and experience. Learning and knowledge acquisition is important to many trainees, as is the striving to further their career using the training as a springboard to a better job or to secure a place at university. Goals relating to well-being and being respected by colleagues and superiors are also held by a small number of trainees, as are goals about maintaining good relationships with colleagues and superiors. Pay was not the most important work goal for the vast majority of vocational trainees.

7.3.2 Descriptive Results

The inter-correlations between all study variables are presented in Table 20. As expected, the personal work goal attributes of commitment, attainability and trainer support showed significant correlations with all of the well-being, flourishing and work attitude measures. Work goal commitment was generally less strongly correlated with the outcome variables than work goal attainability and trainer support for work goals. Work goal progress was highly significantly correlated to all of the outcome variables and work goal attributes in the expected direction. As for the psychological contract measures, actual practice and percentage of promises made broken, were all significantly correlated with all the well-being, flourishing and work attitude measures, and were also significantly correlated with trust in trainer. Promises made was not correlated with OCBs but was correlated with all other outcome measures in the expected direction, with more promises correlating with higher well-being, work attitudes and trust in trainer and lower intention to leave.

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[73] mit Miene Kollegen gut auskomme.
[74] Ich möchte viel Geld bekommen.
[75] Veränderung

I found significant coefficients for age with job-satisfaction and promises made — older trainees reported less promises and less job satisfaction. Gender was significantly correlated with personal work goal commitment, OCBs and promises made. Male vocational trainees are more committed to their personal work goals, display less OCBs and report fewer promises made to them than the females. In the following analyses goal commitment, OCBs and promises made are outcome variables I will therefore control for gender, and for promises made and job-satisfaction, I shall control for age. No issues of multicollinearity were found for any of the variables as all coefficients lay under a score of $P = .80$.

Turning to the PsyCoVo scale, I found that vocational trainees did have promise breaks in their PCs by analysing the discrepancy between what was promised and what was delivered. The least promise breaks were reported for the item "*I am allowed to do the work myself and not just watch*" in the learning by doing sub-scale where 15% of all participants had this promised to them and fulfilled. The largest amount of promise breaks also stemmed from the learning by doing subscale where 38% of the vocational trainees reported that they were promised that, "*It is not bad when I make a mistake, so long as I learn from it*" but that this was not actually the case at work. When looking at the means (see Table 20), on average a massive 43% of the promises made to the vocational trainees are not upheld.

Table 20. Means, Standard Deviations, and Correlation Coefficients

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Age	19.94	2.15	—														
2.	Gender (1 = male)	1.45	0.50	.17***	—													
3.	PWG commitment	4.15	0.63	.09*	.20***	—												
4.	PWG attainability	3.39	0.64	.02	.04	.38***	—											
5.	PWG progress	3.74	0.75	.00	.08	.24***	.38***	—										
6.	PWG support	3.90	0.81	-.01	.09	.22***	.29***	.56***	—									
7.	SWL	4.83	1.27	-.08	-.02	.11*	.23***	.24***	.33***	—								
8.	Job satisfaction	5.11	1.07	-.09*	-.04	.12*	.26***	.41***	.59***	.38***	—							
9.	Intention to leave	5.07	1.39	-.00	-.00	-.13**	-.14**	-.34***	-.44***	-.19***	-.52***	—						
10.	Meaning at work	4.98	1.28	-.02	-.02	.24**	.23***	.38***	.46***	.38***	.60***	-.42***	—					
11.	OCB	5.82	0.66	.07	-.34***	.35***	.20***	.19***	.18***	.22***	-19***	-.08	.29***	—				
12.	Trust in trainer	3.80	0.74	-.03	.02	.15**	.23***	.36***	.64***	.29***	.62***	-.39***	.44***	.24***	—			
13.	Promise made	1.05	0.49	-.13**	-.12**	.09	.17***	.12**	.15**	.15**	.26***	-.14**	.19***	.09	.14**	—		
14.	Actual practice	3.18	0.53	-.03	-.04	.15**	.25***	.40***	.60***	.34***	.71***	-.43***	.51***	.25***	.60***	.32***	—	
15.	% broken promises	42.55	29.28	.-03	-.07	-.23***	-.23***	-.34***	-.49***	-.23***	-.56***	.31***	-.41***	-.30***	-.52***	-.09*	-.73***	—

Note: PWG= Personal Work Goal, SWL = Satisfaction with Life, OCB = Organisational citizenship behaviours; *p*<.001***. *p*<.01**, *p*<.05*

7.3.3 Personal Work Goals

7.3.3.1 Work Goal Commitment, Attainability and Progress

I used multiple regression analysis to test whether the personal work goal attributes of commitment and attainability significantly predicted participants' ratings of personal work goal progress. The results of the regression indicated the two predictors explained 15.7% of the variance $R^2 = .16$, $F(2, 472) = 43.93$, $p<.001$. I found that work goal commitment predicted work goal progress $\beta = .11$, $p<.05$ as did work goal attainability $\beta = 34$, $p<.001$. I therefore accept Hypothesis 1.

I then tested whether vocational trainees' work goal commitment was positively linked to their work goal progress and whether this was moderated by how attainable the work goal was reported to be. Vocational trainees' work goal progress was also predicted to be a mediator between the commitment x attainability interaction and the well-being and work attitude criterion (Hypothesis 2). Please see Figure 30 for a schematic depiction of the model which is part of the telenomic goals model of well-being (Brunstein, 1993). I used conditional process analysis to test these associations using a moderated mediation model and bootstrapping as recommended by Hayes (2013). I carried out five separate analyses testing the separate criterion variables of SWL, job satisfaction, meaning at work, OCBs and intention to leave the firm and controlling for age and gender when appropriate. As the Process application (Hayes, 2013, 2016) calculates the unstandardized b value, I will report this for the following test results and not the standardized β. This reduces the complexity in interpreting the bias-corrected 95% confidence intervals needed to indicate significance for the bootstrapped samples (Hayes, 2013).
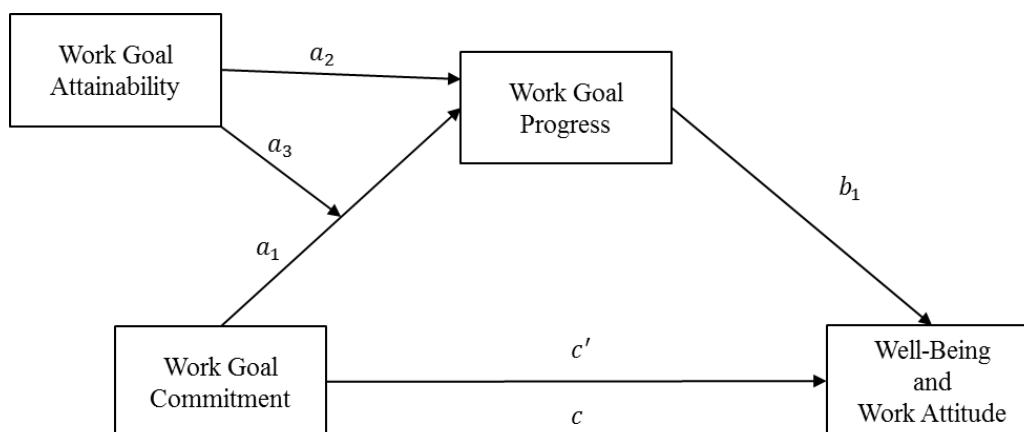
Figure 30. A schematic diagram of the mediated moderator model for work goal commitment on well-being and work attitudes

For the criterion variables SWL, job satisfaction and intention to leave, I found that although there was a direct effect of work goal commitment on progress, work goal attainability did not moderate this association (see Table 21 for results). I also found that there was not a significant moderated

mediation, as the upper and lower bias-corrected 95% confidence intervals of the index of moderated mediation straddled the zero point: SWL index = .04(.04)[-0.05, 0.12]; job satisfaction index = .04(.04) [-0.04, 0.14]; and intention to leave index = -.04(.04) [-0.13, 0.04]. There were significant positive direct associations between work goal commitment and attainability on progress, and also work goal progress on these three criterion variables. The direct path of work goal commitment on SWL, job satisfaction and intention to leave was not significant (see Table 21 for details). There was indication that there was a simple mediation effect present, with a path from work goal commitment through the mediator of work goal progress to impact on SWL, job satisfaction and intention to leave. The results also indicate that work goal attainability could be a second predictor (rather than a moderator) of these criterion variables, with work goal progress as a mediator. I tested this post hoc after completing the hypothesis testing of the other criterion variables. The results are shown in Table 22 and discussed at the end of this section.

Table 21. Model coefficients for the Mediated Moderation Model of Work Goal Commitment on Well-Being and Job Attitude through Goal Progress, mediated by Work Goal Attainability

			Consequent							
		Work goal progress (*M*)					Satisfaction with Life (*Y*)			
Antecedent		*b*	SE	*t*	*p*		*b*	SE	*t*	*p*
X PWG commitment	a_1	0.14	.05	2.56	*p*<.05	*c'*	0.06	.90	0.71	*p*=.48
M PWG progress		—	—	—	—	b_1	0.57	.08	7.56	*p*<0.001
W PWG attainability	a_2	0.40	.05	7.42	*p*<.001		—	—	—	—
M x *W*	a_3	0.07	.07	1.01	*p*=.31		—	—	—	—
Constant	i_i	3.73	.03	112.25	*p*<.001	i_2	2.68	.29	9.24	*p*=0.001
		R^2=.16 $F(3,471)$=29.63, *p*<0.001					R^2=0.12 $F(2,472)$=31.93, *p*<.001			
		Work goal progress (*M*)					Job Satisfaction (*Y*)			
Antecedent		*b*	SE	*t*	*p*		*b* .	SE	*t*	*p*
X PWG commitment	a_1	0.14	.06	2.57	*p*<.05	*c'*	0.05	.07	0.66	*p*=.67
M PWG progress		—	—	—	__	b_1	0.59	.06	9.48	*p*<.001
W PWG attainability	a_2	0.40	.05	7.41	*p*<.001		—	—	—	—
M x *W*	a_3	0.07	.07	,99	*p*=.32		—	—	—	—
Age (control)		-.00	.01	-.26	*p*=.80		-0.05	.02	-2.40	*p*<.05
Constant	i_i	3.73	.30	12.82	*p*<.001	i_2	2.77	.34	8.09	*p*<0.001
		R^2=0.16 $F(4,470)$=22.19, *p*<0.001					R^2=0.18 $F(3,412)$=34.73, *p*<0.001			

Table 21 continued

Antecedent		Work goal progress (M)					Meaning at work (Y)			
		b	SE	t	p		b	SE	t	p
X PWG commitment	a_1	0.14	.05	2.56	p<.05	c'	0.31	.09	3.57	p<0.001
M PWG progress		—	—	—	—	b_1	0.59	.07	7.91	p<0.001
W PWG attainability	a_2	0.40	.05	7.42	p<.001		—	—	—	—
M x W	a_3	0.07	.07	1.01	p=.31		—	—	—	—
Constant	i_i	3.73	.03	112.25	p<.001	i_2	1.50	.40	9,85	p<0.001

$$R^2=.16$$
$$F(3,471)=29.63, p<0.001$$

$$R^2=0.17$$
$$F(2,472)=46.97, p<0.001$$

Antecedent		Work goal progress (M)					OCBs (Y)			
		b	SE	t	p		b	SE	t	p
X PWG commitment	a_1	0.13	.06	2.30	p<.05	c'	0.28	.05	6.11	p<0.001
M PWG progress		—	—	—	—	b_1	0.09	.04	2.42	p<0.05
W PWG attainability	a_2	0.40	.05	7.46	p<.001		—	—	—	—
M x W	a_3	0.08	.07	1.07	p=.29		—	—	—	—
Gender (control)		0.07	.06	1.15	p=.25		0.37	.05	6.70	p<.001
Constant	i_i	3.63	.10	36.23	p<.001	i_2	4.07	.21	30.39	p<0.001

$$R^2=.16$$
$$F(4,470)=, p<0.001$$

$$R^2=.21$$
$$F(3,471)=, p<0.001$$

Antecedent		Work goal progress (M)					Intention to leave (Y)			
		b	SE	t	p		b	SE	t	p
X PWG commitment	a_1	0.14	.05	2.56	p<.05	c'	-0.10	0.10	-1.06	p= .29
M PWG progress		—	—	—	—	b_1	-0.62	0.08	-7.41	p<.001
W PWG attainability	a_2	0.40	.05	7.42	p<.001		—	—	—	—
M x W	a_3	0.07	.07	1.01	p=.31		—	—	—	—
Constant	i_i	3.73	.03	112.25	p<.001	i_2	7.81	0.31	23.27	p<.001

$$R^2=.16$$
$$F(3,471)=29.63, p<0.001$$

$$R^2=.12$$
$$F(2,472)=31.67, p<0.001$$

Notes: Work goal commitment and work goal attainability are mean centred. PWG=Personal Work Goal.

The results for the moderated mediator model in predicting meaning at work and OCBs showed a similar pattern to the other criterion variables described above. The only difference was that there was significant direct effect of work goal commitment on meaning at work and OCBs (please see Table 21 for details). Here again, neither the moderation or the moderated mediation were found to be significant as the bootstrapped upper and lower bias-corrected 95% confidence intervals of the index of moderated mediation did contain 0: Meaning at work index = .04(.04) [-0.04, 0.13]; OCB index =

.01(0.01) [-0.00, 0.03]. Again, there was an indication that a mediation path may be present from work goal attainability and work goal commitment through goal progress on OCBs and meaning at work. I carried out post hoc mediation testing on these remaining two criterion variables, the results of which are displayed in Table 22 and discussed below.

I carried out a series of post hoc bootstrapped mediation analyses to test whether higher work goal commitment and higher work goal attainability predicted higher SWL, job satisfaction and greater meaning at work, and lower intention to leave through the mediator of personal work goal progress. I present the results of these analyses in Table 22 where I set the analyses for goal attainability and commitment side-by-side for comparison purposes. There were significant mediation effects for both attainability and commitment on all of the criterion variables. This was indicated by the 95% bias-corrected confidence intervals of all of the mediations not straddling the zero mark. As is clear from Table 22 Work goal attainability is the stronger predictor for all of the outcomes with the exception of OCBs where goal commitment was the stronger predictor. This finding is depicted in Figure 31 below.

In sum, there were significant direct paths between work goal commitment and progress in each of the models, and work goal progress was significantly associated with all of the well-being and job attitude outcomes in the expected direction. The direct effects of work goal commitment and progress accounted for between 12% and 21% of the variance in the independent variables in these models. Due to the non-significant moderation effect of work goal attainability I reject hypothesis 2 in favour of the null hypothesis, however it is noteworthy that when removing the moderation effect from the model, there were simple mediations of work goal commitment and work goal attainment to the outcome variables through work goal progress.
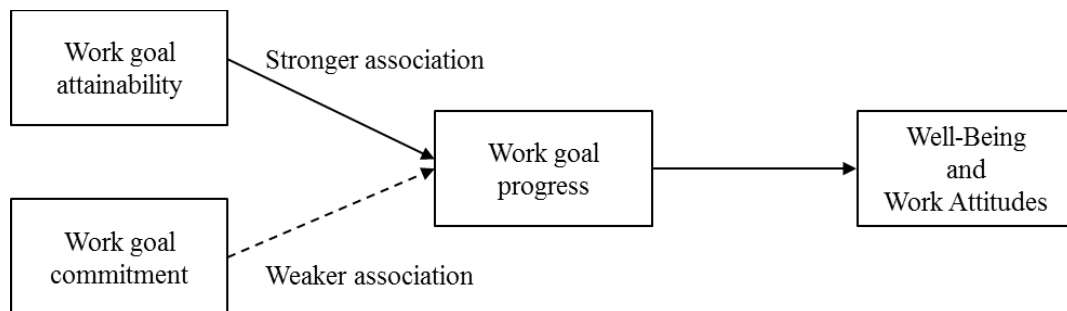
Figure 31. The associations between work goal commitment, attainability and progress on well-being and work attitudes in a vocational training population

Table 22. Results of post hoc mediation analyses – do work goal commitment and work goal attainably both predict vocational trainees' well-being and work attitudes through the mediator of work goal progress?

			Consequent																		

Section 1 – Job Satisfaction

Antecedents		*M* Progress b	SE	t	p		*Y* Job Satisfaction b	SE	t	p	Antecedents		*M* Progress b	SE	t	p		*Y* Job Satisfaction b	SE	t	p
X Commit'	a_1	.28	.05	5.33	<.001	c'	.05	.07	.66	=.51	*X* Attain'	a_1	.45	.05	9.01	<.001	c'	.21	.08	2.70	<.01
M Progress		—	—	—	—	b	.59	.06	9.48	<.001	*M* Progress		—	—	—	—	b	.53	.06	8.20	<.001
Constant	i_i	2.70	.36	7.40	<.001	i_2	3.72	.52	7.17	<.001	Constant	i_i	2.24	.34	6.61	<.001	i_2	3.43	.50	6.91	<.001
Age (Control)		-.01	.02	-0.39	=.70		-.05	.02	-2.40	<.05	Age (Control)		-.00	.01	-.08	=.94		-.05	.02	-2.30	<.05

$R^2 = .06$, $F(2,472) = 14.20$, $p<.001$ | $R^2 = .18$, $F(3,471) = 34.73$, $p<.001$ | $R^2 = .15$, $F(2,472) = 40.57$, $p<.001$ | $R^2 = .19$, $F(3,471) = 37.52$, $p<.001$

Section 2 – SWL

Antecedents		*M* Progress b	SE	t	p		*Y* SWL b	SE	t	p	Antecedents		*M* Progress b	SE	t	p		*Y* SWL b	SE	t	p
X Commit'	a_1	.28	.05	5.32	<.001	c'	.06	.09	.07	=.48	*X* Attain'	a_1	.45	.05	9.02	<.001	c'	.23	.09	2.48	<.05
M Progress		—	—	—	—	b	.57	.08	7.56	<.001	*M* Progress		—	—	—	—	b	.51	.08	6.44	<.001
Constant	i_i	2.59	.05	5.32	<.001	i_2	2.42	.41	5.84	.001	Constant	i_i	2.21	.17	12.83	<.001	i_2	2.13	.35	6.14	<.001

$R^2 = .05$, $F(1,473) = 28.29$, $p<.001$ | $R^2 = .12$, $F(2,472) = 31.93$, $p<.001$ | $R^2 = .15$, $F(1,473) = 81.30$, $p<.001$ | $R^2 = .12$, $F(2,472) = 35.14$, $p<.001$

Section 3 – Meaning at work

Antecedents		*M* Progress b	SE	t	p		*Y* Meaning at work b	SE	t	p	Antecedents		*M* Progress b	SE	t	p		*Y* Meaning at work b	SE	t	p
X Commit'	a_1	.28	.05	5.31	<.001	c'	.31	.09	3.57	<.001	*X* Attain'	a_1	.45	.05	9.02	<.001	c'	.27	.09	2.90	<.01
M Progress		—	—	—	—	b	.59	.07	7.90	<.001	*M* Progress		—	—	—	—	b	.56	.08	7.18	<.001
Constant	i_i	2.59	.22	11.75	<.001	i_2	1.50	.40	3.71	<.001	Constant	i_i	2.21	.17	12.83	<.001	i_2	1.97	.34	5.77	<.001

$R^2 = .05$, $F(1,473) = 28.29$, $p<.001$ | $R^2 = -17$, $F(2,472) = 46.97$, $p<.001$ | $R^2 = .15$, $F(1,473) = 81.30$, $p<.001$ | $R^2 = .16$, $F(2,472) = 44.46$, $p<.001$

Table 22. Continued

		Consequent																			

		M Progress					*Y* OCB						*M* Progress						*Y* OCB			
Antecedents		b	SE	t	p		b	SE	t	p			b	SE	t	p		b	SE	t	p
X Commit'	a_1	.27	.05	5.05	<.001	c'	.28	.05	6.11	<.001	*X* Attain'	a_1	.45	.05	8.96	<.001	c'	.15	.05	3.11	<.01
M Progres*s*		—	—	—	—	b	.09	.04	2.42	<.05	*M* Progress		—	—	—	—	b	.09	.04	2.32	<.05
Constant	i_i	2.55	.23	11.23	<.001	i_2	3.79	.21	18.17	<.001	Constant	i_i	2.08	.19	10.83	<.001	i_2	4.32	.19	22.72	<.001
Gender (Control)		.05	.06	0.76	=.45		.37	.06	6.70	<.001	Gender (Control)		.10	.06	1.55	=.12		.44	.06	7.76	<.001
		$R^2 = .06$ $F(2,472) = 14.42, p<.001$					$R^2 =$ $F(3,471) = , p<.001$						$R^2 = .15$ $F(2,472) = 41.97, p<.001$					$R^2 = .16$ $F(3,471) = 30.05, p<.001$			

		Consequent																			

		M Progress					*Y* Intention to leave						*M* Progress						*Y* Intention to leave			
Antecedents		b	SE	t	p		b	SE	t	p			b	SE	t	p		b	SE	t	p
X Commit'	a_1	.28	.05	5.32	<.001	c'	-.10	.10	-1.07	<.001	*X* Attain'	a_1	.45	.05	9.02	<.001	c'	-.03	.10	-.32	=75
M Progres*s*		—	—	—	—	b	-.62	.08	-7.41	<.001	*M* Progress		—	—	—	—	b	-.63	.09	-7.15	<.001
Constant	i_i	2.59	.22	11.75	<.001	i_2	7.81	.45	17.26	<.001	Constant	i_i	2.21	.17	12.83	<.001	i_2	7.53	.38	19.74	<.001
		$R^2 = .06$ $F(1,473) = 28.29, p<.001$					$R^2 = .12$ $F(2,472) = 31.67, p<.001$						$R^2 = .15$ $F(1,473) = 81.30, p<.001$					$R^2 = .12$ $F(2,472) = 31.08, p<.001$			

Notes: Commit = Personal work goal commitment; Attain = Personal work goal attainment

7.3.3.2 Trainer Support of Trainee's Goals

I predicted that the amount that the trainers support the trainees' personal work goal would act as a moderator in the associations between work goal commitment, and the satisfaction and work attitude measures. I carried out a moderation analysis for each of the criterion variables separately also adding trust in trainer as an important criterion variable. First and foremost, I found that trainer support for trainee's goal did not moderate the links between personal work goal commitment and any of the outcome variables (see Table 23). Looking closer at the results, I found that in the interaction models for SWL, job satisfaction, intention to leave and trust in trainer, work goal commitment was not a direct predictor of the outcomes. For the criterion variables of meaning at work and OCBs work goal commitment did have a direct significant effect. Goal support from the trainer was significantly associated with all of the outcome variables in the expected direction. In all models but OCB the link between trainer support and the outcomes was larger and more significant than the link between work goal commitment and the dependent variable in question, indicating overall that trainer support was a better predictor than work goal commitment. Hypothesis 3 was therefore rejected in favour of the null hypothesis as it predicted a significant interaction effect which was not present.

Table 23. Results: Trainer Support as a Moderator

	Consequent				
	Satisfaction with Life				
	b	LCI - UCI	SE B	t	p
Constant	4.85	4.74, 4.96	.06	83.35	<.001
PWG commitment	0.05	-0.13, 0.23	.09	0.53	=.59
Trainer support of PWG	0.50	0.36, 0.65	.07	6.92	<.001
PWG commitment x trainer support	-0.15	-0.34, 0.04	.09	-1.60	=.11
	$R^2 = 0.11$, $F(3,472) = 20,02$, $p<.001$				
	Job satisfaction				
Constant	6.01	5.27, 6.74	.37	16.04	<.001
PWG commitment	-0.01	-0.15, 0.12	.07	-0.21	=.83
Trainer support of PWG	0.78	0.68, 0.88	.50	15.47	<.001
PWG commitment x trainer support	-0.02	-0.16, 0.12	.07	-0.23	=-.12
Age (control)	-0.04	-0.08, -0,01	.02	-2.40	=.081
	$R^2 = 0.35$, $F(4,470) = 64.37$, $p<.001$				
	Meaning at work				
Constant	4.97	4.87, 5.08	.54	91.75	<.001
PWG commitment	0.29	0.13, 0.50	.08	3.52	<.01
Trainer support of PWG	0.66	0.50, 0.82	.08	7.90	<.001
PWG commitment x trainer support	0.02	4.87, 5.08	.11	0.16	=0.87
	$R^2 = 0.22$, $F(3,472) = 35.10$, $p<.001$				

Table 23 Continued

	Consequent				
	OCBs				
Constant	5.27	5.11, 5.45	.08	61.80	<.001
PWG commitment	0.27	0.17, 0.36	.04	5.85	<.01
Trainer support of PWG	0.09	0.02, 0.16	.34	2.73	<.05
PWG commitment x trainer support	-0.02	-0.11, 0.07	.04	-0.37	=.71
Gender (Control)	0.37	0.26, 0.48	.05	6.69	<.001
	$R^2 = 0.21$, $F(4,470) = 31.10$, $p<.001$				
	Intention to Leave				
Constant	5.08	4.97, 5.20	.06	85.35	<.001
PWG commitment	-0.07	-0.26, 0.11	.09	-0.81	=.41
Trainer support of PWG	-0.75	-0.90, -0.60	.08	-9.30	<.001
PWG commitment x trainer support	-0.06	-0.29, 0.18	.12	-0.48	=0.63
	$R^2 = 0.20$, $F(3,472) = 33.46$, $p<.001$				
	Trust in Trainer				
Constant	3.79	3.74, 3.85	.03	142.85	<.001
PWG commitment	0.02	-0.27, 0.11	.04	0.34	=.73
Trainer support of PWG	0.58	-0.90, -0.59	.03	17.65	<.001
PWG commitment x trainer support	0.05	-0.29, 0.18	.05	1.06	=.29
	$R^2 = 0.41$, $F(3,471) = 110.49$, $p<.001$				

Note: PWG= Personal work Goal; Personal work goal commitment and trainer support for goals were centred for these analyses.

7.3.4 Psychological Contracts of Vocational Trainees

7.3.4.1 PC Promises, Broken PC Promises, and Delivered Inducements' Influence on Satisfaction, Work Attitudes and Trust in the Trainer.

I tested Hypotheses 4 in a series of hierarchical regression analyses. I wanted to find out whether broken PC promises were associated with vocational trainees' satisfaction and job attitude outcomes over and above that of the actual practices (delivered inducements) and promises made in the firms. The assumptions for the regression analyses were all tested and found to be within acceptable parameters. It must be noted that the variable *Percentage of promises broken* is a product of the *promises made* and *actual practice* which represented the two columns in the PsyCoVo scale. Nevertheless, as the correlations and collinearity statistics (Tolerance and VIF) were all within acceptable limits I preceded with the analysis. Similar discrepancy values have also been used successfully in regressions in past papers (Guest & Conway 2003; Kickul, Lester & Finkl, 2002).

I carried out a separate analysis for each of the six satisfaction and job attitude outcomes used in this study. For the models predicting SWL, meaning at work, intention to leave and trust in trainer I

entered the percentage of promise breaks as the first stage of the regressions as according to PC theory this should be the biggest predictor of the outcome variables. At the second stage I entered the promises made and then at stage three the actual practice at work. For the models testing job satisfaction and OCBs I added age or gender as a control variable on the first stage in the model, followed by the percentage of promise breaks at stage two, made promises at stage three and what the actual practice at work as a final predictor. As there are six models each with three or four levels to describe, for the sake of brevity I shall summarise the findings here stage for stage, and ask the reader to consult Table 24 and Table 25 for the regression statistics.

I found that the percentage of promises made that were broken was significantly associated with each of the outcome variables (even when controlling for age and gender), predicting between 5% (SWL) and 31% (job satisfaction) of the variation in the criterion variables. This was the case even when I controlled for age and gender. The percent of promises broken also remained significantly associated with all of the outcome variables in step two (step 3 for job satisfaction and OCBs) of the regression models when the predictor of PC promises was added. PC promises was a significant predictor of all the outcome variables. In this step the increases in variance explained by the promises was rather small accounting for between 1% (trust in trainer) and 4% (job satisfaction) of the variance in the outcome variables. In the next step, when the actual practice was added to the models, the relationship between promises and the dependent variables became non-significant in all cases. This indicates that promises made to the trainee do not make a significant difference in terms of their well-being and job attitudes when also taking into account the predictive power of what actually happens at work. It is clear that the PC promises being made is not a strong predictor of any of the well-being and work attitude measures in this population of vocational trainees.

In the final step of these models I added the actual practice into the equations. I found that for SWL, meaning at work, and intention to leave, the associations to the percentage of promises broken became non-significant. For these three criterion variables the actual practice at work seems to be a more important predictor than either the PC promises made or the percentage of these which are broken. For the outcome variables of job satisfaction, trust in trainer and OCBs the percentage of promise breaks remained a significant predictor alongside what actually happens in the workplace. For both OCBs and trust in trainer the percentage of broken promises score yielded higher F-statistics and a higher unique R^2 than the actual practice score indicating that it is the stronger predictor for these criterion variables. In the case of OCBs in step 4 the actual practice was non-significant, with percentage of promise breaks remaining as the only significant predictor in this model.

When interpreting these results (see Table 24 and Table 25) it is important to bear in mind that the b values are rather low as the predictor of promises broken is a percentage, with a scale range of 100^{76}, but that in real terms this does still equate to a noticeable and significant difference in the criterion variable. As an example, for every 1% more of promises made that is broken, a vocational trainee would be expected to drop 0.005 of a point on the OCB scale. This seems inconsequential, but actually equates to a trainee with 50% of their promises made broken predicted to present with a quarter of a point lower on the seven-point OCB scale when promises made and actual practice are kept constant. This is demonstrated by the equation below and can be seen as a modest but significant contribution:

$$OCB_i = b_0 + b_1 percentage\ in\ promises\ broken_i$$
$$= 1.94 + (-0.005 \times 50)$$
$$= 1.94 + -.25$$
$$= 1.69$$

To conclude, I partially accept Hypothesis 4 as the percentage of promises broken is a better predictor than promises made or actual practice for job satisfaction, OCBs and trust in trainer. For predicting SWL, meaning at work, and intention to leave, hypothesis 4 was rejected as what actually happens in the firm was a better predictor.

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[76] As the b values are so low due to the scale of the broken promises score being a percentage score, I have reported the results for these and the following analyses which include the percentage score to 4 decimal places after zero to help the reader interpret the data accurately.

Table 24. Results of the hierarchical regression analysis series of percentage of broken promises, promises, and actual practice on the various outcome variables

	Satisfaction with Life											
	Step 1				Step 2				Step 3			
Antecedent	b	SE	t	p	b	SE	t	p	b	SE	t	p
% breaks	5.260	.100	-5.158	<.001	-0.010	.002	-4.91	<0.001	0.001	.59	0.27	=.79
Promises	—	—	—	—	0.33	.17	2.84	<0.01	0.11	.121	0.89	=.38
practice	—	—	—	—	—	—	—	—	0.81	.16	4.97	<.001
Constant	5.26	.10	52.35	<0.001	4.89	.16	30.00	<0.01	2.12	.58	3.65	<.001

$R^2 = 0.05$
$F(1,473) = 26,61\ p<0.001$

$\Delta R^2 = 0.02$
$\Delta F(1,472) = 8.091,\ p<0.01,$

$\Delta R^2 = 0.05$
$\Delta F(1,471) = 24.71,\ p<0.001,$

	Meaning at Work											
	Step 1				Step 2				Step 3			
Antecedent	b	SE	t	p	b	SE	t	p	b	SE	t	p
% breaks	-0.018	.02	-9.82	<.001	-0.017	.002	-0.02	<0.001	-0.005	.003	-1.77	=.078
Promises	—	—	—	—	0.40	.12	0.19	<0.001	0.123	.111	1.11	=.269
practice	—	—	—	—	—	—	—	—	1.01	.15	6.78	<.001
Constant	5.74	.09	60.90	<0.001	5.28	.152	34.82	<0.001	1.84	.53	3.48	<.001

$R^2 = 0.17$
$F(1,473) = 96.36,\ p<0.001$

$\Delta R^2 = 0.02$
$\Delta F(1,472) = 13.62,\ p<0.001$

$\Delta R^2 = 0.26$
$\Delta F(1,471) = 45.88,\ p<0.001$

Table 24 continued

	Intention to leave											
	Step 1				Step 2				Step 3			
Antecedent	*b*	SE	*t*	*p*	*b*	SE	*t*	*p*	*b*	SE	*t*	*p*
% breaks	0.015	.002	7.06	<.001	0.014	.002	6.82	<0.001	0.000	.61	-0.12	=.91
Promises	—	—	—	—	-0.32	.12	-2.58	<0.05	-0.007	.13	-0.05	=.96
practice	—	—	—	—	—	—	—	—	-1.14	.17	-6.70	<.001
Constant	4.45	.12	41.45	<0.001	4.81	.17	27.55	<0.001	8.73	.17	14.34	<.001

$R^2 = 0.10$
$F(1,473) = 19.76, p<0.001$

$\Delta R^2 = 0.01$
$\Delta F(1,472) = 6.67, p=0.10NS$

$\Delta R^2 = 0.08$
$\Delta F(1,471) = 44.85, p<0.001$

	Trust in Trainer											
	Step 1				Step 2				Step 3			
Antecedent	*b*	SE	*t*	*p*	*b*	SE	*t*	*p*	*b*	SE	*t*	*p*
% breaks	-0.013	.001	-13.37	<.001	-0.013	.001	13.156	<0.001	-0.004	.001	-3.28	<.001
Promises	—	—	—	—	0.14	.056	2.39	<0.05	-0.04	.06	-0.73	=.464
practice	—	—	—	—	—	—	—	—	0.67	.08	8.50	<.001
Constant	4.36	.05	85.53	<0.001	4.20	.08	50.78	<0.001	1.90	.28	6.73	<.001

$R^2 = 0.27$
$F(1,473) = 178.85, p<0.001$

$\Delta R^2 = 0.01,$
$\Delta F(1,472) = 5.71 \ p<0.05$

$\Delta R^2 = 0.10,$
$\Delta F(1,471) = 7 \ 2.20, p<0.001$

Table 25. Results of the hierarchical regression analysis series of percentage of broken promises, promises, and actual practice on job satisfaction and OCBs controlling for age and gender

	Job Satisfaction															
	Step 1				Step 2				Step 3				Step 4			
Antecedent	b.	SE	t	p	b	SE	t	p	b	SE	t	p	b.	SE	t	p
Age	-0.05	.023	-2.09	<.05	-0.06	.02	-2.99	<.01	-0.04	.2	-2.37	<.05	-0.04	.02	-2.31	<.05
% breaks	—	—	—	—	-0.02	.001	-14.74	<.001	-0.02	.001	-14.56	<0.001	-0.004	.00	-2.19	<.05
Promises	—	—	—	—	—	—	—	—	0.45	.08	1.19	<0.001	0.08	-08	1.11	=.27
practice	—	—	—	—	—	—	—	—	—	—	—	—	1.26	.10	12.35	<.001
Constant	6.07	.46	13.19	<.001	7.12	.39	18.36	<0.001	6.39	.40	15.89	<0.001	1.94	.50	3.87	<.001

$R^2 = 0.01$	$\Delta R^2 = 0.31$	$\Delta R^2 = 0.04$	$\Delta R^2 = .52$
$F(1,473) = 4.37$, p<0.05	$\Delta F(1,472) = 217.49$, $p<0.001$	$\Delta F(1,471) = 26.94$, p<0.001	$\Delta F(1,470) = 1\ 52.47$, p<0.001

	Organisational citizenship behaviours															
	Step 1				Step 2				Step 3				Step 4			
Antecedent	b.	SE	t	p	b	SE	t	p	b	SE	t	p	b.	SE	t	p
Gender	0.46	.06	7.94	<.001	.43	.06	7.79	.001	0.45	.12	8.19	<.001	0.45	.06	8.17	<.001
% Breaks	—	—	—	—	-0.006	.01	-6.69	<.001	-006	.001	-6.43	<.001	-0.005	.001	-3-44	<.001
Promises	—	—	—	—	—	—	—	—	0.14	.06	2.49	<.05	0.11	.06	1.90	=.06
practice	—	—	—	—	—	—	—	—	—	—	—	—	0.10	.08	1.21	=.22
Constant	5.16	.09	58.49	<001	5.46	.09	56.93	<0.001	5.28	.12	43.82	<0.001	4.94	.03	15.99	<.001

$R^2 = .12$	$\Delta R^2 = .08$	$\Delta R^2 = .01$	$\Delta R^2 = .002$,
$F(1,473) = 63.12$, p<.001	$\Delta F(1,472) = 44.76$, $p<.001$	$\Delta F(1,471) = 6.19$, p<.05	$\Delta F(1,470) = 1.46$ p=.227

Notes: Due to the fact that the predictor Percentage of promises broken is a percent score with a range of 100 points the *b* values are very small. I have therefore reported the results to the 3rd decimal place for this variable.

7.3.4.2 PC Clarity as an Antecedent of Broken Promises and the effects on Satisfaction, Work Attitudes and Trust in Trainer

Turing now to a possible antecedent of broken PC promises I investigated the effect of having an unclear psychological contract on the percentage of promises that were broken, and how this was linked to the vocational trainees' work attitude and satisfaction scores. I had originally planned to carry out this analysis for each of the 6 dependant variables, but as Hypothesis 4 showed that the percentage of broken promises variable was only a valid predictor of job satisfaction, OCBs and trust in trainer, I carried out the analysis for only these three outcome variables. See Figure 32 for a schematic diagram of the proposed model.
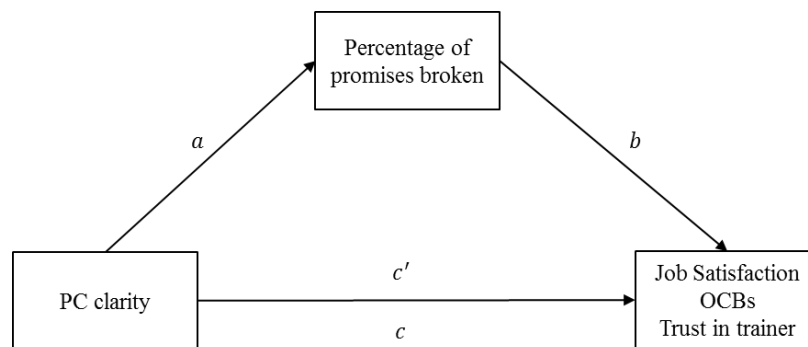
Figure 32. Schematic diagram of the proposed mediation model — psychological contract clarity as an antecedent to PC promise breaks

I carried out a regression-based mediation analyses (Hayes, 2013) for each criterion variable using 5000 bootstrapped samples. The results are presented in Table 26. Firstly, I found that there was a large beta coefficient for the direct path of PC clarity on the percentage of broken promises. Here I can identify the clarity of a PC as a likely antecedent to broken promises. A raise of one point on the four-point PC clarity scale is predicted to lead to a 19-20% reduction in the percentage of promises that are broken for all three criterion variables.

Secondly, the mediation effect was statistically significant. PC clarity predicted changes in all of the criterion variables through the mediator of broken promises. These associations were significant as the 95% bias-corrected bootstrapped confidence intervals did not straddle the number zero and were as follows: job satisfaction $ab = 0.30$, [0.22, 0.39]; OCBs $ab = 0.12$, [0.07, 0.18]; and trust in trainer $ab = 0.20$, [0.14, 0.26]. All direct paths in the models were also significant bar one. In the case of OCBs the direct effect of PC clarity on OCBs was found to be non-significant ($c' = 0.01$, $p = .76$.), but a path through the mediator of broken promises was significant. I accept hypothesis 5 for the variables of job satisfaction, OCBs and trust in trainer as the mediation effect was significant for these criterion variables.

Table 26. Results of the mediation analysis series of psychological contract clarity through broken promises on job satisfaction, OCBs and trust in trainer

		Consequent								
		% breaks *M*					Job Satisfaction *Y*			
Antecedents		*b*	SE	*t*	*p*		*b*	SE	*t*	*p*
X PC Clarity	a_1	-19.59	1.92	-10.22	*p*<.001	*c'*	0.56	.07	8.42	*p*<.001
M % breaks		—	—	—	—	*b*	-0.02	.001	-10.71	*p*<.001
Constant	i_i	111.33	13.06	8.90	*p*<.001	i_2	5.01	.44	11.37	*p*<.001
Age (Control)		-0.75	.57	-1.31	*p*=.19		-0.046	.018	-2.57	*p*<.05
		R^2= 0.18 $F(2,472) = 52.55, p<.001$					R^2= 0.41 $F(3,471) = 109.27, p<.001$			
		% breaks *M*					OCB *Y*			
Antecedents		*b*	SE	*t*	*p*		*b*	SE	*t*	*p*
X PC Clarity	a_1	-19.62	1.91	-10.28	*p*<.001	*c'*	0.01	.05	-5.91	*p*=.76
M % breaks		—	—	—	—	*b*	-0.006	.001	-5.91	*p*<.001
Constant	i_i	109.22	6.97	15.67	*p*<.001	i_2	5.41	.19	27.89	*p*<.001
Gender (Control)		-5.29	2.44	-2.17	*p*<.05		0.43	.06	7.79	*p*<.001
		R^2= 0.43 $F(2,472) = 54.36, p<.001$					R^2= .19 $F(3,471) = 37.86, p<.001$			
		% breaks *M*					Trust in Tainer *Y*			
Antecedents		*b*	SE	*t*	*p*		*b*	SE	*t*	*p*
X PC Clarity	a_1	-19.45	1.91	-10.16	*p*<.001	*c'*	0.32	.05	6.70	*p*<.001
M % breaks		—	—	—	—	*b*	-0.01	.001	-9.83	*p*<.001
Constant	i_i	101.06	5.89	17.17	*p*<.001	i_2	3.27	.017	19.23	*p*<.001
		R^2= .18 $F(1,473) = 103.23, p<.001$					R^2= .34 $F(2,472) = 120.15, p<.001$			

7.3.4.3 Promise of Employment after the End of the Vocational Training and its Impact: Wish for Employment as a Mediator

I predicted that having a promise of employment after the vocational training had finished would lead to increased well-being and job attitude measures, especially if the vocational trainee wanted to work at the firm at the end of their training. To test this hypothesis I carried out a series of bootstrapped moderation models using regression analysis with 1000 bootstrapped samples (Hayes, 2013). I tested each criterion variable in turn in a separate model (see Table 27). I did not test intention to leave as an outcome here as question one from the intention to leave scale, "*Would you like to stay in this firm after you have finished your training?*" acted as the moderator variable. The results differed between the outcomes of SWL, job satisfaction and meaning at work and the work attitude outcome of OCBs. I found that a promise of employment was not significantly positively related to SWL, job satisfaction

or meaning at work. The hypothesised interaction effect of a promise of employment being moderated by whether the trainee wished to work there after their training was also not significant for any of the satisfaction outcomes. There was a positive significant direct effect of the trainer wishing to be taken on and SWL ($b_2 = 0.405$, $p<.001$), job satisfaction ($b_2 = 0.99$, $p<.001$) and meaning at work ($b_2 = 0.927$, $p<.001$), indicating that the desire to be taken on is a better predictor of well-being in the vocational setting than an actual promise of employment.

Table 27. Results of the moderation model: wanting and being promised employment

	Consequent			
	b	SE	t	p
Antecedents	SWL			
Constant	4.61	.10	43.70	$p<.001$
X promise of employment	-0.17	.13	-0.70	$p=.48$
M Wanting employment	0.41	.13	3.15	$p<.01$
XM promise of employment x wanting employment	-0.56	.44	-1.26	$p=.21$
	$R^2= 0.033$, $F(3,471) = 5.35$, $p<.01$			
Antecedents	Job satisfaction			
Constant	5.49	.41	13.27	$p<.001$
X promise of employment	-0.21	.19	-1.13	$p=.26$
M Wanting employment	0.99	.09	10.17	$p<.001$
XM promise of employment x wanting employment	0.02	.33	0.08	$p=.94$
Age (control)	-0.50	.02	-2.40	$p<.05$
	$R^2= 0.47$, $F(4,470) = 33.96$, $p<.001$			
Antecedents	Meaning at work			
Constant	4.42	.10	44.39	$p<.001$
X promise of employment	-0.30	.23	-1.32	$p=.19$
M Wanting employment	0.93	.12	7.64	$p<.001$
XM promise of employment x wanting employment	0.09	.42	0.21	$p=.83$
	$R^2= 0.131$, $F(3,471) = 25.77$, $p<.001$			
Antecedents	OCBs			
Constant	5.16	.09	51.95	$p<.001$
X promise of employment	-0.31	.12	-2.56	$p<.05$
M Wanting employment	0.02	.06	0.38	$p=71$
XM promise of employment x wanting employment	0.18	.22	0.85	$p=40$
Gender (control)	0.46	.06	8.02	$p<.001$
	$R^2= 0.133$, $F(4,470) = 18.14$, $p<.001$			

Notes: Promise of employment and wanting employment centred.

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With OCBs the results were different (see Table 27). There was a significant direct effect of promise of employment on OCBs, albeit a negative one ($b_1 = $ -0.31, $p<0.05$). A promise of employment is associated with lowered OCBs in the vocational trainees. The moderator path in this case was also non-significant. On the basis of these non-significant interaction results I rejected Hypothesis 6 in favour of the null hypothesis. Wanting to be employed by the firm did not have a significant effect on the relationship between having the promise of employment and any of the well- being or work attitude outcomes.

7.3.5 Psychological Contract as a Facilitator or Hindrance to Personal Goals

7.3.5.1 Job Satisfaction: Serial Double Mediation Model

The final investigation in this study was to find out whether the trainees' broken promises were related to their satisfaction and work attitude scores through a double serial mediation path of work goal attainability to work goal progress. My theory is that increased broken promises would lead to a less facilitative environment for pursuing goals making the goal less attainable which would lead to lower goal progress and as a consequence of this, lowered well-being and work attitudes. According to hypothesis 7 I was to test six independent variables (SWL, job satisfaction, meaning at work, OCBs, intention to leave and trust in trainer). As the results of Hypothesis 4 indicated that the actual practice was a more reliable predictor than the percentage of promises that were broken for predicting satisfaction with life, meaning at work and intention to leave, these three variables will not be tested. I therefore tested separate serial double mediation models for the criterion of job satisfaction, OCBs and trust in trainer, the results of which are presented in Table 28.

Firstly I tested job satisfaction. As shown in Figure 33 and Table 28 the higher the percentage of promises that were broken to the vocational trainees, the lower their reported work goal attainability was ($a_1 = $ -0.005) which was associated to a lower goal progress score ($d_{21} = $ 0.38). This lowered goal progress was a significant predictor of job satisfaction ($b_2 = $ 0.33). These three individual paths in the double mediator interaction path were highly significant as was the direct relationship of broken promises on job satisfaction ($c' = $ -0.02). One path in the model was non-significant: that of goal attainability on job satisfaction (see Table 28). The total indirect effect of the percentage of promises broken on job satisfaction was ($c-c' = $ 0.003) which was significantly larger than the direct effect of c' alone. I wish to reiterate here that the X variable in this and the subsequent models is the percentage of the promises broken with a range of 100 whilst the mediator and outcome variables were measured on a 5, 6, or 7 point scale. This means that the coefficients for this predictor variable are likely to be small.

Figure 33. A diagram of the serial multiple mediator model predicting job satisfaction from percentage of promises broken through work goal attainability and work goal progress in turn. Age is controlled for

I found that the proposed indirect effect of broken promises on job satisfaction through work goal attainability and work goal progress (-0.0005) was statistically significant; as the 95% bias-corrected bootstrap confidence intervals were below zero [-0.0011, -0.0003]. The mediation through goal attainability alone was not significant, but there was a significant path through goal progress alone. I compared the three main indirect effect paths in the model to find out if they were significantly different to each other. I found that the mediation through work goal attainability alone was not significantly different to the mediation between the serial double mediator as the bootstrapped confidence intervals for the comparison crossed the zero mark [-.0077, 0011]. Further comparisons revealed that the indirect path with work goal progress as a single mediator variable was significantly different to the other two mediation paths indicated that this was the strongest path in the model. An interpretation of the result is that the percentage of broken promises has a larger effect on job satisfaction through work goal progress on its own rather than through the indirect route of work goal attainability followed by work goal progress although this is also significant.

Table 28. Regression coefficients, standard errors and model summary information for the serial multiple moderator model of percentages of broken promises to job satisfaction

		Consequent									
		Job Satisfaction												
		Work Goal Attainability M_1					Work Goal Progress M_2					Job Satisfaction Y			
Antecedent		b.	SE	t	p		b	SE	t	p		b	SE	t	p
X % breaks	a_1	-.005	.001	-5.11	<.001	c'	-0.007	.001	-6.30	<.001	c'	-0.017	.001	-12.01	<.001
M_1 PWG attainability		—	—	—	—	b_1	0.38	.05	7.67	<.001	b_1	0.11	.07	1.69	=.09
M_2 PWG progress		—	—	—	—	b_2	—	—	—	—	b_2	0.33	.06	5.65	<.001
Constant	i_{M1}	3.52	.27	13.03	<.001	i_Y	2.81	.34	8.32	<.001	i_Y	5.34	.46	11.53	<.001
Age (control)		.00	.01	0.34	=.73		0.00	.01	-0.25	=.80					
		\multicolumn{4}{c}{R^2= .05 $F(2,472) = 13.21, p<.001.$}			\multicolumn{4}{c}{R^2= .21 $F(3,471) = 42.43, p<.001$}			\multicolumn{4}{c}{R^2= .38 $F(4,470) = 72.79, p<.001$}

		OCB												
		Work Goal Attainability M_1					Work Goal Progress M_2					OCB Y			
Antecedent		b.	SE	t	p		b	SE	t	p		b	SE	t	p
X % breaks	a_1	-.005	.001	-5.07	<.001	c'	-0.007	.001	-6.20	<.001	c'	-0.005	.001	-5.44	<.001
M_1 PWG attainability		—	—	—	—	b_1	0.38	.05	7.65	<.001	b_1	0.12	.05	2.56	<.001
M_2 PWG progress		—	—	—	—	b_2	—	—	—	—	b_2	.033	.04	0.81	=.42
Constant	i_{M1}	3.56	.09	35.85	<.001	i_Y	2.64	.21	12.83	<.001	i_Y	4.90	.21	22.98	<.001
Gener (control)		0.03	.06	0.55	=.58		0.07	.06	1.20	=.23		0.042	.05	7.72	<.001
		\multicolumn{4}{c}{R^2= .05 $F(2,472) = 13.31, p<.001$}			\multicolumn{4}{c}{R^2= .22 $F(3,471) = 43.01, p<.001$}			\multicolumn{4}{c}{R^2= .21 $F(4,470) = 31.30, p<.001$}

Table 28 Continued

Antecedent		Work Goal Attainability M₁					Work Goal Progress M₂					Trust in Trainer Y			
		b.	SE	*t*	*p*		*b*	SE	*t*	*p*		*b*	SE	*t*	*p*
X % breaks	a_1	-0.005	0.001	-5.13	<.001	c'	-0.007	0.011	-6.29	<0.001	c'	-0.011	0.001	-10.99	<0.001
M_1 PWG attainability		—	—	—	—	b_1	0.379	0.049	7.68	<0.001	b_1	0.06	0.05	1.32	=0.19
M_2 PWG progress		—	—	—	—	b_2	—	—	—	—	b_2	0.18	0.04	4.30	<0.001
Constant	i_{M1}	3.611	0.050	72.21	<0.001	i_Y	2.743	0.186	14.74	<0.001	i_Y	3.38	0.21	16.21	<0.001
		R^2= 0.05 $F(1,473) = 26.35, p<0.001$					R^2= 0.21 $F(2,472) = 63.73, p<0.001$					R^2= 0.31 $F(3,471) = 71.78, p<0.001$			

The header "Trust in Trainer" spans the full table above the three column groups.

Note: PWG= Personal work Goals.

7.3.5.2 Organisational Citizenship Behaviours: Serial Double Mediation Model

The next criterion variable which I tested in the double mediation model was OCBs (please see Table 28 and Figure 34 for the results). I found the results differed those of job satisfaction as the direct association between work goal progress on OCBs was not significant ($b_2 = 0.03$, $p = 0.42$). The indirect effect when regressing broken promises through work goal progress on OCBs was also not significant as the bootstrapped confident intervals for this effect straddled zero [-0.0010, 0.0003]. Furthermore when predicting OCBs from the percentage of promises broken I found that the double mediation indirect effect of broken promises on OCBs through work goal attainability and then work goal progress was not significant. The one mediation path that was significant was through work goal attainability and although the direct effect of broken promises to OCBs was also significant there is mediation through work goal attainability.
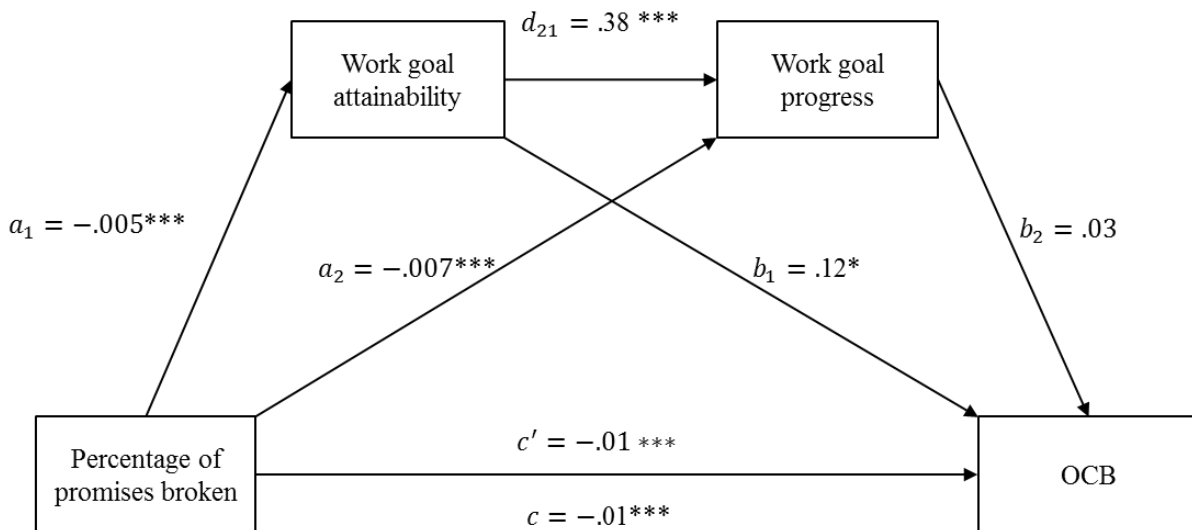
Figure 34. Depiction of the serial multiple mediator model predicting OCBs from percentage of promises broken through work goal attainability and progress in turn. Gender is controlled for in this model

7.3.5.3 Trust in Trainer: Serial Double Mediation Model

The last criterion variable that I tested in this serial double mediator model was the amount of trust the vocational trainees had in their trainer (please see Figure 35 and Table 28 for the model results). Here the results paralleled the results from the outcome variable of job satisfaction. Two of the indirect effects in the model are significant as their bias-corrected bootstrapped confidence intervals did not straddle zero, these are the indirect effects through both moderators, and just through work goal progress: $a_1d_{21}b_2 = -0.003$, [-0.0007 , 0.0002], $a_2b_2 = -0.003$, [-0.022,-0.0006]. The indirect effect

through work goal attainability alone was not significant as the bootstrapped confident intervals for this effect straddled zero $a_1b_1 = -0.003$, [-0.0009, 0.002].
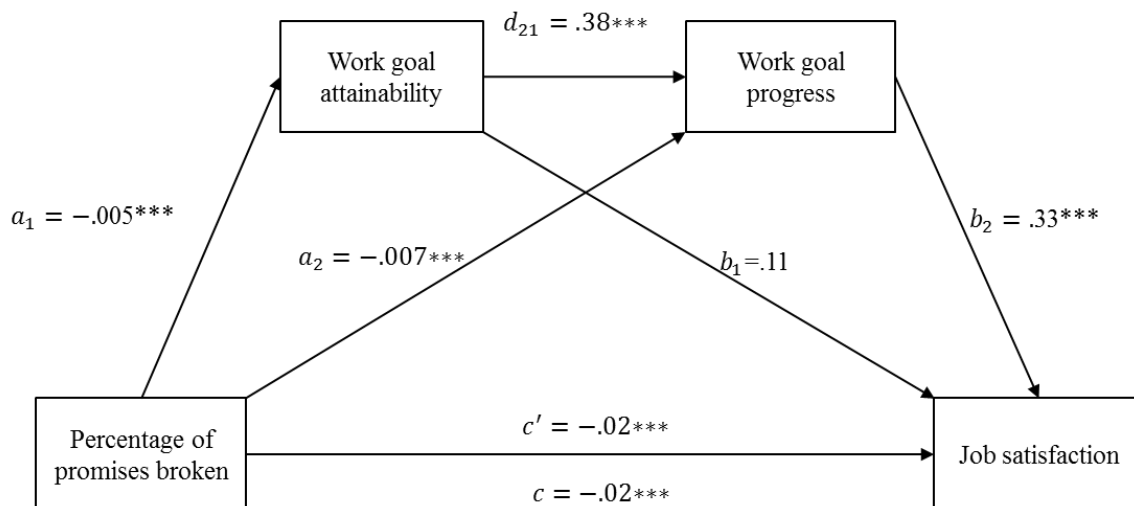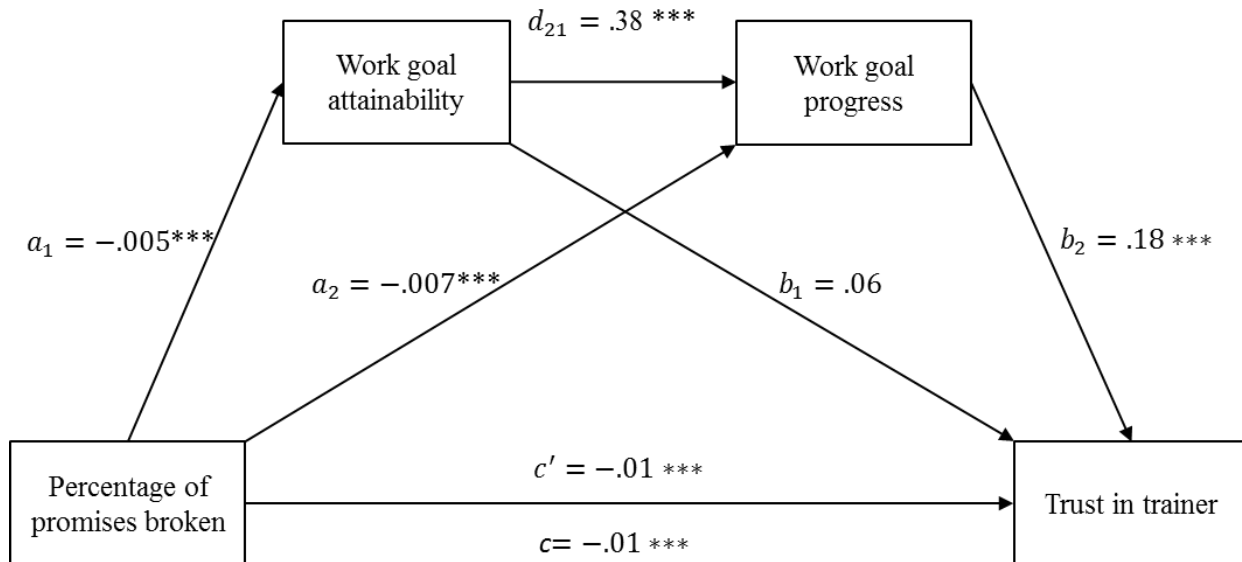

Figure 35. Depiction of the serial multiple mediator model predicting trust in trainer from percentage of promises broken through work goal attainability and progress in turn.

I contrasted the indirect effects to see which held the most predictive power. I found that the single moderator path of promises broken through goal attainability on trust in trainer was not significantly different to the double mediator model. This was indicated through the 95% bias corrected bootstrapped confidence intervals crossing the zero mark. The double indirect path was significantly different to the indirect path through work goal progress which had the largest effect size. From this information I can interpret that this path (a_2b_2) is better at predicting trust in trainer than the longer path with the two mediators of work goal attainability and work goal progress.

Although the double mediation models of percentage of promise breaks predicting job satisfaction and trust in trainer through goal attainability and progress were significant, the simpler indirect paths through goal progress alone were found to be a stronger predictor for these two dependent variables. In the case of OCBs the double interaction was non-significant with the indirect path of broken promises through work goal attainability being the better predictor of OCBs. For this reason, although there were some signs of double moderation, I cannot fully accept Hypothesis 7.

7.4 Discussion

The analyses that I carried out in this cross-sectional study yielded interesting but rather mixed results, both in relation to striving towards personal work goals and how the aspects of the psychological

contract impact upon well-being and work attitudes. These results suggest that the relationship between the variables is more complex than first hypothesised, with certain associations in this sample of vocational trainees not matching previously published research. This raises questions in terms of how relevant and generalizable traditional theories are to a population of adolescents in vocational training. The results also uncover specific features of goal striving and the PC framework which are particularly relevant to adolescents in dual-system work training programs which will be discussed practical implications and recommendations for practitioners in the vocational training industry stemming from the study will be touched upon here with an in depth discussion in the conclusion of the dissertation (see Chapter 9).

7.4.1 Vocational Trainees' Goal Striving

7.4.1.1 Work Goal Attainability, Commitment and Progress

One major finding is that work goal commitment and work goal attainability were antecedents of goal progress. There are implications attached to this finding in terms of how firms could intervene to boost their trainees' goal progress to benefit both trainee and their training firm. These are discussed in Chapter 9. Contrary to previous research, (Brunstein et al., 1993; Klein, et al., 1999; Maier & Brunstein, 2001) the two variables of attainability and commitment seem to be independent of each other in the sample of vocational trainees. I tested a part of the Telenomic Goals Model of Well-being (Brunstein et al., 1993) and found that work goal attainability does not augment or diminish the effects of work goal commitment on work goal progress the but the direct effects of both of these criterion variables are still significant and of interest. Why work goal attainability was not found to be a moderator in this group of vocational trainees is not clear. However it is notoriously difficult for non-experimental studies to prove occurrences of moderation due to measurement error and differential residual variances of the interactions which may have been contributing factors in this case (McClelland & Judd, 1993). In post-hoc testing I found that both work goal attainability and commitment significantly predicted the criterion variables through the mediator of work goal progress, with attainability being more highly significant than commitment in all criterion variables but OCBs (see a depiction of this in Figure 31).

Why is work goal commitment less of a predictor of goal progress and the criterion variables than attainability? The commitment levels of vocational trainees may play a lesser role in the satisfaction and work attitude measures than they would in an adult or student population. In a meta-analysis Klug and Maier (2014) found that adolescents benefitted the least of all population groups when it came to the positive effects of goal progress on subjective well-being. The explanation given was that adolescents' days are highly regulated by others, with lots of external benchmarking. This lessens their control potential for the goal strivings and may make the progress evaluation of their own goal less important. This argument could also be true for trainee goal commitment. The vocational training

setting can be described as being highly regulated. There are specific tasks and learning objectives which the trainees have to accomplish within the programme. Trainees are also tested regularly in the workplace and at their vocational schools.

If we take a typical goal for the trainees such as "*to finish my vocational training successfully*" as an example, it may be that the training is so guided that finishing the training successfully is the norm, with only extreme cases failing to pass the final test. In 2014, 90.1% of all trainees who registered for the final exam passed it (BIBB, 2016). Therefore it seems plausible that in the vocational training situation the work goals that concern the trainees can be accomplished easily. This may render commitment to the goal less relevant than it would be in a less regulated domain with harder to reach goals. This theory could be tested on other adolescents in highly regulated and guided environments, such as in a detention centre or an intensive summer school programmes.

For OCBs the pattern is reversed with work goal commitment being a stronger predictor through the mediator of goal progress than goal attainability. Perhaps this captures a type of highly committed vocational trainee who is both committed when it comes to their own goals, but also committed to the health of the organisation and their goals, which is reflected in the amount of organisational citizenship behaviours these trainees display. This idea could be investigated further in subsequent research.

In line with telic theories of goals (c.f., Brunstein, 1993; Harris et al., 2003; Diener, et al., 1999; Klug & Maier, 2014), I found that the more progress vocational trainees made towards their personal work goals the more satisfied they were with their lives and their vocational training job, the more organisational citizenship behaviours they reported engaging in, and the less intention they had to quit their training. A novel finding in this study is that for vocational trainees, higher work goal progress is associated with higher levels of meaning derived from work. This finding adds to the literature on personal work goal progress which has typically been measured alongside more traditional scales of well-being (Mayseless & Keren, 2014). Here I have found that work goal progress is also linked to more the eudemonic measures of flourishing — deriving a sense of meaning at work.

7.4.1.2   Personal Goals and Social Support in the Vocational Trainer-Trainee Dyad

We rarely strive for a personal goal in isolation. In adolescence and early adulthood social support and guidance from parents, peers, teachers and some weak ties are thought to be especially important (Jokisaari & Nurmi, 2005; Kiuru, at al., 2009; Salmela-Aro, 2007; Salmela-Aro; 2010). I investigated whether having a trainer who supported their trainee's most important personal work goal would moderate the link between work goal commitment and various satisfaction and work attitude measures. As in previous models in this study, work goal commitment was only directly significantly associated with OCBs and meaning at work. Trainee support was not found to moderate the link

between commitment and any of the outcome variables tested. After the previous results this was not particularly surprising and again illustrates the difficulties there are for non-experimental researchers to prove moderation effects (McClelland & Judd, 1993). Nevertheless, in line with previous research (Jokisaari & Nurmi, 2005; Kiuru, 2009; Salmela-Aro, 2007; Salmela-Aro; 2010) support from the vocational trainer was still found to be an important predictor of the criterion variables. I found that the amount of support the trainers showed their trainees for their personal work goals had a direct and large effect on SWL, meaning at work and trust in trainer. There were particularly large effects of trainer support on job satisfaction and trust in trainer, where the variance explained was 35% and 41% respectively. For these trainees it is clear that when it comes to pursuing their personal goal, having the support of their trainer is of utmost importance, with a supportive trainer being instrumental in leading the young people to have a more positive attitude at and about work and building a healthy and trusting relationship with their trainer. Practical implications of this finding and recommendations of how to increase trainer support in the vocational setting are presented in the conclusion (see Chapter 9).

7.4.2 Vocational Trainees' Psychological Contracts, Well-Being and Work Attitudes

The vocational trainees in this study reported a number of promises being broken, with the average trainer experiencing breaks in 43% of their promises relating to learning and fairness. I find this rather high especially when comparing this to other studies, one of which state that only 55% of employees are likely to experience a single promise break in their employment relationship (Robinson & Rousseau, 1994). One reason for this may be that promises to vocational trainees are made rather more flippantly by the employer or trainer than would be the case in older contacted staff. This is an important observation and indicates that these trainees are rather vulnerable to experiencing promise breaks in comparison to other workers.

One of the main findings of this research is that, as expected, the percentage of promises broken relating to learning and fairness was an adequate predictor of job satisfaction, trust in trainer and the amount of organisational citizenship behaviours vocational trainees display. This finding is in line with previous research into PCs (Bal et al., 2008; Conway et al., 2011; De Wang & Hsieh, 2014; Lapointe & Vandenberghe, 2016; Philipp & Lopez, 2013; Robinson & Rousseau, 1994; Turnley & Feldman, 1999; Zagenczyk, 2014). However, perhaps more impactful for PC theory is that what actually happens in the training firms. In other words, the psychological contract delivered inducements, was a far better predictor of SWL, meaning at work, and intention to leave than either the promises made to the trainees or the percentage of promise breaks they reported. Indeed, the associations between promises made and SWL, meaning at work and intention to leave were non-significant when controlling for the actual practice. This is contrary to what traditional and recent PC literature has posited, which emphasises the importance of the promises and broken promises in the

PC relationship (e.g.; Conway & Coyle-Shapiro, 2012; Guest, 2016; Ho, 2005; Morrison & Robinson, 1997; Rousseau, 1995, 2000; Bal et al., 2016).

The lack of association between the promises made and percentage of broken promises, and meaning at work and SWL may be due to their abstraction level as they are higher order criterion variables. It is likely that the amount of meaning we derive from our work would be more affected by internal processes than external ones. The meaning at work scale measured the fit between a trainee's morals and values and the opportunity to live these at work. The learning and fairness promises made to a trainee may be rather irrelevant to this sense of meaning, as a promised item would not affect the fit of one's values in the same way that what actually happens at work would. With both meaning at work and SWL it may simply be that the measures are too high an order to pick up on the subtleties and intricacies of rather specific promises made and broken at work. Indeed, when turning to the more domain specific measure of job-satisfaction I found that the percentage of promises broken did a reasonable job of predicting satisfaction levels at work.

With intention to leave the lack of importance of promises and promise breaks could be related to the concreteness of actual practices. Before adding actual practices to the measurement model broken promise percentages and the promises made were both significant predictors of intentions to leave, but for the vocational trainees what actually happens is simply a much stronger predictor of quitting intentions than undelivered promises. This indicates that the vocational trainees respond to concrete happenings at work rather than more evaluation-based cognitively demanding construct of broken promises when forming their intentions to leave. These findings call into question previous research which has studied satisfaction and intention to leave in PC breaks without controlling for the actual practices which occur in the workplace (e.g., Bunderson, 2001; Coyle-Shapiro & Kessler, 2002; der Vaart et al., 2013; Turnley & Feldman, 1999).

7.4.2.1 PC Clarity is an Antecedent to PC Breaches

A further important finding was that an un-clear PC deal is an antecedent of promise breaks relating to learning and fairness, which sequentially, leads to decreased job-satisfaction, less OCBs and mistrust in the trainer. This is a novel finding stemming from a newly generated scale of PC clarity. Recommendations in the literature of how to reduce promise breaks in PC relationships have focused on the need to have clear and uncompromised lines of communication regarding the promises and inducements in the PC deals (Reimann & Guzy, 2017; Morrison & Robinson, 1997; Bordia et al., 2008; O'Leary-Kelly et al., 2014). These claims have, up to now, been unfounded and based on presumptions rather than tested theory. In fact, there has been very little research into the antecedents of PC breaches at all (Vantilborgh et al., 2016). I provide evidence here that substantiates these claims. The practical implication of this finding is that with increased PC clarity and completeness a reduction

in the instances of PC breaks that vocational trainees experience at work could be achieved. I give concrete recommendations for practice in Chapter 9.

7.4.2.2   Wish to be Taken On

I learned in the interview study (Chapter 6) and in the content analysis of the trainees' personal work goals (Section 7.3.1.1) that there is a preoccupation with being offered employment at the training organisation after graduation the dual-system programme. In fact, 55 vocational trainees reported that their most important personal work goal was to be taken on by their present firm or to get a firm job offer at the end of the training which represented 11% of all of the personal work goal segments. Although a popular goal amongst the vocational trainees, my research revealed that the promise of employment does not lead to the expected increase in SWL, job satisfaction, and meaning at work. Rather surprisingly, it is the sheer desire to be taken on that makes a positive difference, not playing a moderation role, but a direct one on the outcome criterion.

A second finding relating to future employment opportunities is that those vocational trainees who had a promise of employment actually had lower self-reported OCBs than trainees who did not. This is, again, rather contradictory to what would be expected and should be investigated further. One plausible explanation for this reduction in OCBs is that after being promised a job opportunity, trainees may feel safer and more secure than before. This sense of security may lead them to relax a little at work and ease off somewhat on their altruistic, in-role and extra-role behaviours. Trainees who do not have a promise of employment presumably cannot afford this luxury and may continue to display OCBs in an attempt to make a good impression on their superiors and trainer in the hopes of being taken on. This idea is nicely illustrated in the most important work goal of a 21 year old sales assistant whose goal is to: "*...make myself indispensable so they have to take me on.*[77]"

Being promised a position before the end of training is a promise that is particular to vocational trainees and it would be interesting to investigate it further. It is centred on a transition into the next stage of a trainees' career path and as such may take on a more important role close to the developmental deadline of the end of the training. The cross-sectional nature of this study and the study timing does not allow for such testing over time, also I was not able to follow the trainees' reactions later on in the year, when the promise of employment was either honoured or broken. As an important goal for many young people, it would be interesting to investigate whether a broken promise of employment would have a larger negative impact on trainees than other promises do. More research into the importance and role of the promise of employment is needed. Experience sampling of employment promises and their consequences, or longitudinal surveys relating to employment

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[77] Ich will / Ich möchte….."mich unentbehrlich machen damit ich übernommen werde."

promises taken before, during and after the transition from trainee to trained professional could help our understanding of this particular life transition.

7.4.3 Psychological Contact as a Hindrance to Personal Work Goal Progress and Flourishing

I brought the two main concepts in this dissertation, PC breaches and personal work goals together into one model. I theorised that a vocational trainee confronted with a high percentage of breached promises would have lower goal attainability as a result due to a non-facilitative environment in which to strive. Moreover, I theorised that as a consequence of this lower attainability, lower goal progress, lowered job satisfaction, less OCBs and lower trust in their trainer would be a result. Firstly, and perhaps most importantly in terms of this dissertation, I found that there was a negative relationship between the percentage of promises that were breached and the extent to which vocational trainees considered their goals to be attainable when considering OCBs as a final behavioural outcome. This novel finding indicates that a trainer who breaks PC promises they made to their trainee is not simply cancelling the awaited inducement relating to the promissory arrangement. They are also creating a more hostile environment for the trainee which is non-facilitative to goal striving. Breaching a PC promise could change the landscape in which the trainee plans, positions, adjusts and strives towards their personal work goals. In the case of OCBs this reduced goal attainability stemming from broken PC promises has a direct negative impact on the trainees' behaviours. Trainees with less attainable goals due to broken PC promises display less organisational citizenship behaviours that would benefit the firm.

When considering the amount a trainee trusts their trainer and the level of job satisfaction the trainee reports having the pattern is slightly different. For these outcome variables I found that the percentage of learning and fairness promises broken does not impact upon the attainability of the trainees' personal work goal, but instead has a direct negative impact upon the goal progress that a trainee makes which, in turn, negatively effects the job satisfaction and the amount of trust a trainee has in their trainer. This indicates, again, that breaking promises made to the trainer does more than simply eradicate the promised reward, but also sets off a negative chain of consequences affecting their internal processes, namely, their motivational system of personal work goals.

These findings are in line with Little's (2000a; 2006) social ecological model of strivings which identifies stable and dynamic environmental features as impacting on an individual's goal pursuit and, as a consequence, affecting their well-being and flourishing (see Chapter 5 for an overview). This study has indicated that the psychological contract is one such dynamic environmental feature. Little (2006) emphasises the role that the environment plays in maintaining active goal pursuit. He states that an environment which lacks the impulses needed to spark goal striving can be seen as problematic. A trainee's PC with a high percent of learning and fairness promises broken may lack the impulses

necessary to trigger the trainees' personal work goal pursuit especially if concerned with learning, as the majority of the trainees' work goals are. This could lead to reduced motivation evinced through reduced goal progress and lowered job satisfaction and trust in the trainer.

Although some parts of the vocational training environment are relatively stable such as the structured exams and the curriculum, the psychological contract is not one of them. This is a dynamic process with promises being made, amended, kept or broken over time (Conway & Briner, 2005). The present study is cross-sectional and, as such, is limited in its' capacity to investigate the dynamism of the trainees' PCs. There is no consideration of the time between the promises being broken and its impact on the criterion variables. This study investigates the general trends of the PCs of vocational trainees but further research is needed to investigate the aftermath of a promise break for well-being and motivation in the days following the break. I tackle this research gap in my next study (Chapter 8), which is a daily diary study where I follow a sub-sample of these trainees over a two-week period and pinpoint days when PC promises made to the trainees are broken.

7.4.4   Limitations and Avenues for Future Research.

Most studies have certain limitations and this one is no exception. Firstly I relied on cross-sectional data which means that causality cannot be inferred. This cross sectional approach also means there is no way for me to test the long-term implications of striving towards personal work goals in a vocational setting where a large percent of the promises made are broken. Such a longitudinal approach would allow researchers to investigate whether the trainees in non-facilitative PC environments would readjust their personal work goals to adjust to the new PC framework. Both personal work goals and psychological contracts are dynamic elements which are thought to develop over time. This dynamism is not tested in this study however I attempt to capture the day-to-day changes in PCs and personal work goals in Study 3 which is presented in the next chapter.

Secondly, although I content analysed the vocational trainees' personal work goals as an exploratory phase of the analysis, I did not take into account the goal content in the hypothesis testing. Empirical evidence does indicate that the content of personal goals may have independent effects on well-being and goal progress (Dweck, 2007; Elliot, et al., 1997; Hyvönen et al. 2010; Locke & Latham, 2006; Roberson, 1990). In the same vein, I also did not compare the differences in the strengths of associations between the three sub-scales of the PsyCoVo measure and the outcome variables. PC research has showed that the PC content can effect well-being and job satisfaction (Hui et al., 2004; Raja, et al., 2004) and so the content of broken promises and its impact on well-being would be an avenue for further study. Different effects may be found for different subscales of the test as some types of promise breaks may impact more on the vocational trainees than others. Additionally, these two content areas could be re-examined together to investigate any interactions between them. A broken promise which is thematically linked to a personal work goal, for instance a promise broken in

the area of learning by doing may effect a trainee more if their most important work goal was thematically linked, such as a competency work goal coded as learning. If such a promise were broken, it may mean the loss of resources which would also have been important to the goal striving in the same area.

There are two limitations of this study, both linked to the use of the PscCoVo. Although I discovered in Study 1 that being valued as a full member of the workforce and support were important themes for the vocational trainees, I had to remove these subscales from the PsyCoVo measure as they were either negatively worded, which caused confusion for the trainees, or because they did not load satisfactorily on a clear factor. Although this made the PsyCoVo a more reliable measure, I believe that it is somewhat incomplete. A reworking of these two sub-scales avoiding reverse scored items would make for a more comprehensive measure and would be a logical next step to take.

Secondly, the variable I used to measure the broken PC promises was the percentage of promises broken, which is a discrepancy score. This was a product of the two columns from the PscCoVo scale: promises made and actual practice. This approach can be criticised for the fact that perhaps only one of the two variables making up the score really matters (Arnold, 1996). To deal with this, I firstly controlled for both of the original variables in the preliminary analysis. I omitted outcome variables from the analysis if either promises made or the actual practice was a stronger predictor than the discrepancy score. This was the case with SWL, meaning at work and intention to leave. Finally, when using a percentage score a trainee who was made 12 promises and six of them were broken, has the same percentage score as a trainee who was made two promises and one of them was broken. When interpreting the results of this study one must merely bear in mind that the variable represents a ratio of made to broken promises, and in not a reflection on the amount of promises broken.

7.4.5   Conclusions

I have discovered that for vocational trainees, having an important personal work goal which they consider to be attainable and which they are committed to can have far reaching effects. The more attainable goals are perceived to be, and the more committed the trainee is to the goals, the higher goal progress the trainees feel. This higher goal progress consequently leads to higher SWL, job satisfaction, meaning at work, OCBs and a lowered intention to leave their training firms. This would be of benefit for both the firm and the individual trainee.

I have also found that an environmental feature, the vocational trainees' PCs, are rather unstable, with an average trainer experiencing a break in 43% of their learning and fairness promises. I have found that trainees with a higher percentage of breached promises display less OCBs, have lower job satisfaction, and trust their trainer less than trainees with a lower percentage of breaches. For SWL,

intention to leave and meaning at work the actual practice in the firm was a better predictor than the psychological contract promises made or the percentage of promises broken.

Psychological contracts act as a type of guiding framework in the working environment within which employees can regulate and direct their behaviours to fit the work environment appropriately (Rousseau, 2000). Vocational trainees also make, amend and strive for their personal work goals using the workplace environment as a backdrop. A PC with a high percentage of breaches negatively impacts upon the goal attainability leading to reduced OCBs. Promise breaks also negatively impact on goal progress which mediates the link to meaning at work and trust in their trainer. These associations are proposed to be due to the dynamic aspect of the PC framework. When breaches occur it changes the environmental landscape making it more hostile for strivings, rendering the goal less attainable whilst also perhaps reducing the amount of triggers for goal progress.

8 Study 3: The Daily Experience of Psychological Contract breaches

8.1 Introduction and Hypotheses

Individuals are reactionary and changeable. Our lives are dynamic as we navigate the changing landscapes and differing tasks that we face daily. In study two I gleaned a good overall assessment of the personal goals and psychological contracts of vocational trainers, and how these constructs linked to their well-being and work attitudes. This study, however, is but a momentary snapshot into the lives of the young people, not taking into account the dynamism of everyday life. In the following daily diary study I attempt to capture a more complete picture of what the daily life of vocational trainees looks like over a longer time period, paying particular attention of how broken PC promises and can impact daily mood and daily progress towards personal work goals.

Aspects of a working environment are dynamic too. Changing daily job tasks, spontaneous interactions with other workers and supervisors, and a trainee's own increasing knowledge and competency base are all features of a changing work landscape that shifts subtlety on a daily level. One feature of this changing work context is the psychological contract. As outlined in Chapter four, psychological contracts are thought to be fluid, with changing terms over time as both parties to the contract amend, break, fulfil or reassess the promises involved (Conway and Brinner, 2002). It is this changing aspect of the workplace that I will investigate in the following study by using broken promises as a starting point.

When creating a psychological contract with an employer in the socialisation period of work promissory terms are imparted to the worker, both directly and implicitly (Rousseau, 2002). These promises are based on trust, mutual understanding and a mutual respect in upholding these contractual terms. We learned in chapter four that promise breaks have been related to decreased arousal (Conway and Briner, 2002), job satisfaction (De Wang and Hsieh, 2014), decreased trust at work (Guest, 2004), increased intentions to quit the job (van der Vaart, Linde & Cockeran, 2013), poorer effort at work and poorer performance levels in contracted and temporary workers in various job branches (Zaoh et al., 2007). The majority of these studies though had a cross sectional design, using count data for the number of contract items fulfilled or breached to date from a prescribed list. The contract terms that were to be rated as broken or not were often presented to the participants rather than letting the participants report their personal promise break stories. Furthermore, none of the studies focused on the experience of psychological contract breaks in vocational trainees. With this present study I attempt to capture the changing nature of the daily work environment of the vocational trainers and to investigate the trainees' own broken promise experiences.

From the results of study two, which are presented in chapter seven we learned that the general trends of promise breaks having negative impacts on workers were also relevant to the vocational trainee population. The results showed generally that those trainees reporting a larger percentage of their promises being broken also reported being less satisfied with their work, having lower rates of OCBs and trusting their trainers less than other vocational trainees. Nevertheless, this cross-sectional investigation did not reflect the dynamic nature of the PC terms which I wish to address by using a daily diary design, nor did it give the young people the opportunity to report anecdotally in their own words which promises were broken, rather than using pre-chosen promises in a scale. This will also be addressed in the present study. This brings me to the first of three research questions in this study.

Research Question 1: *What is the content of the psychological contract promises that vocational trainees' report as broken?*

I believe that a PC promise break could be a very useful instrument by which to measure the dynamic working environment of vocational trainees. By nature a promise being broken is a one off event that either occurs on a particular day or not, thus providing a dichotomous but dynamic measure. If a promise that has been made is broken on a particular day it seems logical that this specific promise break event could be recorded and investigated and the negative implications of such a break taken under the loop. Indeed this is what Conway and Brinner (2002) did when studying government workers. I wish to investigate whether the same is true for vocational trainees, this subset of rather vulnerable workers who can be seen as being very much lower in the hierarchy than their trainer or working partners making or breaking the promises. It is plausible that a promise break on a particular day would have negative consequences in terms of daily arousal, and work attitude measures such as job performance and job effort for the young people in vocational training. It would also be plausible that these repercussions of a broken promise may still be felt the day after the event, as the affective response may linger. In order to test these premises the following Hypotheses will be tested.

Arousal

Hypothesis 1a: *Broken promises are negatively associated with energetic arousal (positive affect) on the within and between levels.*

Hypothesis 1b: *Broken promises are positively associated with tense arousal (negative affect) on the within and between levels.*

Hypothesis 1L*: Broken promises are negatively associated with energetic arousal and positively associated with tense arousal for the next working day (within level only).*

Work measures

Hypothesis 2a: *Broken promises are negatively associated with daily work performance on the within and between levels.*

Hypothesis 2b: *Broken promises are negatively associated with daily work effort on the within and between levels.*

Hypothesis 2L: *Broken promises are negatively associated with work performance and negatively associated with work effort for the next working day (within level only).*

Vocational trainees are also personal goal directed. The personal goals that they strive towards at work are likely to be affected by the psycho-social working context in which the young person finds themselves. The psychological contract is a part of this work context around which the vocational trainees act and form goals. It forms a framework in which the young workers can orientate themselves, learning the appropriate behaviours that are expected of them in the workplace (Rousseau, 2002). It is also likely that the PC forms an overarching frame within which the trainees' personal work goals are organised. It is plausible then, that a break in a PC promise could lead to an unstable goal landscape. Having a PC promise break may affect the attainability of a personal work goal by creating a non-facilitative goal environment where goal progress is thwarted. I wish, therefore to study the link between broken promises and goal progress (see Hypothesis H3a). After a promise break a worker is thought to re-orientate and reassess their situation (Coyle-Shapiro & Kessler, 2000). To re-orientate oneself when a promise break had happened and to deal with the consequences of the broken promise may take up personal and motivational resources that would normally have been channelled into making progress towards a goal. This knock-on effect of a broken promise may presumably also last more than one day. During the time that a person is having to deal with the consequences of the promise break and to re-orientate themselves at work, it is conceivable that personal work goals will take a back seat, becoming less salient for the trainees (playing a lesser role) over this time. To investigate the role that broken promises play on daily goal progress and daily goal salience the following hypotheses will be tested.

Goal Measures

Hypothesis 3a: *Broken promises are negatively associated with daily goal progress on the within and between levels.*

Hypothesis 3b: *Broken promises are negatively associated with daily goal salience on the within and between levels.*

Hypothesis 3L: *Broken promises are negatively associated with goal progress and negatively associated with goal salience for the next working day (within level only).*

It is likely that not all psychological contract promises will have the same importance value for the vocational trainees as others do (Guest & Conway, 1997; Conway & Briner, 2002). When relating this to the personal work goals some promises that are broken may be of high importance to a young person's personal work goal hindering them more, whilst others rather less relevant and of little consequence. In the same way that self-concordant goals are thought to have more of an impact on measures of well-being than those that are not highly integrated into an individual's implicit actions and core values. (Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001; Sheldon & Kasser, 2001), I wanted to test whether the importance of a broken promise for a trainees' personal work goal would moderate the associations between promise breaks and the affective, work related and goal related outcomes.

Hypothesis 4: *The more important a broken promise is to the personal work goals of vocational trainees the larger the association between broken promises and arousal, work measures and goal measures.*

In this study, I also include two more general open research questions. These are outlined below. I am interested in investigating the extent to which vocational trainees differ in their affective and behavioural response and goal activity following a broken PC promise. It may be that some individuals have a very dramatic response to a broken promise, and others show little change from a day when no promises are broken. Although this is not the main focus of this investigation, I would like to briefly investigate this research question and also explore which demographic factors could go some way in explaining any differences in these associations that I find.

Research Question 2: *How much do trainees differ between each other in the strength of the associations found in H1, H2 and H3?*

Research Question 3: *Which demographic factors can help explain any differences in the strength of the associations found in H1, H2 and H3?*

Study two of this dissertation (see chapter 7) investigated, amongst others, the associations between vocational trainees' psychological contract promises and breaches, in relation to a number of different well-being and work attitude measures. In short, I found that vocational trainees, who reported a high percentage of their promises being broken, also report comparably less job satisfaction, had lower trust in their trainers, and had lower work-goal attainability and progress. To verify these findings using a different scale and a more longitudinal time frame, I will test the following remaining hypotheses by comparing the data collected in this diary study to the vocational trainees' responses from study two as my study design allows for this triangulation. Furthermore, a final hypothesis (H8) will test whether vocational trainees reporting a PC with a high percentage of promise breaks in the general PsyCoVo

scale also report more instances of daily promise breaks in this current diary study. This could serve to validate the PsyCoVo scale further.

Life satisfaction

Hypothesis 5: *Broken promises are negatively associated with general life satisfaction on the between level.*

General work-attribute measures

Hypothesis 6a: *Broken promises are negatively associated with general job satisfaction on the between level.*

Hypothesis 6b: *Broken promises are negatively associated with how meaningful trainees find their jobs to be overall on the between level.*

Hypothesis 6c: *Broken promises are negatively associated with the amount of trust trainees have in their trainer on the between level.*

General work-goal appraisals

Hypothesis 7: *Broken promises are negatively associated with overall work-goal appraisals on the between level.*

Percentage of promises made that are broken

Hypothesis 8: *Broken promises are positively associated with the percentage of promises trainees report to have been broken on the PsyCoVo scale on the between level.*

With this introduction I have attempted to provide a very brief summary of the literature and premises leading to the research hypotheses. I recapped some main arguments and lines of enquiry which emerged from the comprehensive review of the literature relating to psychological contracts and personal work goals which I presented in chapters 2, 3 and 4, and the possible links between the two concepts which I explored at length in chapter 5. The seven groups of hypotheses were also presented here as well as three research questions. Following on, the next section in this paper describes the method used to investigate these hypotheses and research questions.

8.2   Method

8.2.1   Participants

The sample for this diary study was drawn from the pool of vocational trainees who participated in study two (see Chapter seven). During that data collection all trainees were offered the opportunity to

take part in this extended diary study. Of the 475 possible participants 155 agreed to take part, of whom 143 actually started filling in the diary. For comparison reasons only those trainees with at least two correctly completed workday diary entries were included in the final analysis. Participants were given the choice of an online or paper-pencil version of the diary. The on-line participants' data was put through compliancy testing and person days were removed from the data set, if they were not filled in on the day or the day after the date reported by the trainee. This added rigger to the testing but reduced the sample size somewhat. The final sample consisted of 119 trainees (attrition rate=23%) with a total of 816 person days (M = 7 days per participant). This sample size is very high compared to other published diary studies, both in terms of the number of participants and the number of person days collected (Maas & Hox, 2005; Ohly et al.; 2010, Briner & Parkinson, 1993).

Table 29 Sample according to vocational training job and branch

Branch	Job title	Number of participants	% of total sample
Medicine			
	Medical Assistant	30	25.2
	Veterinary Medical Assistant	5	4.2
Sales/ retail			
	Sales assistant in retail	13	10.9
	Sales assistant in industry	35	29.4
	Sales assistant in wholesale	6	5
	Sales person in a bakery	11	9.2
	Sales person for the food industry	1	0.8
bureaucratic			
	Office clerk	10	8.4
Mechanic			
	Cutting machine operator	2	1.7
	Industrial mechanic	1	0.8
Trades /crafts people			
	Carpenter	4	3.4
	Automotive painter	1	0.8
total		n=119	100

The final sample included vocational trainees from four vocational training schools. The participants were being trained in 12 different jobs covering a variety of occupational fields (see Table 29 above for details). Multi-level analyses allow for the fact that each participant may have differing numbers of data entries, i.e. days worked (Hox, 2010; Bolger et al., 2003). This was important as each occupational trainee programme has differing school-to-work day ratios with most programmes

having 3-4 workdays and 1-2 school days per week. The mean age of the sample was 20.10 years (SD=1.756) and contained 96 females (81%). Of the sample 47% were in their first year of training, 36% in their second year, and the remainder being in their third and final year. Most of the participants chose to fill out the diary on-line with only 27% of the sample completing the paper-and-pencil version of the diary.

8.2.2 Procedure

Participants were required to complete a diary each day after work for two weeks and were given detailed verbal instructions on how to do so. Although the advantages of web-based diaries far outweigh those of traditional paper-and-pencil formats in terms of compliance testing (Ohly et al., 2010), I thought it would be too restrictive to limit the sample to trainees with access to the World Wide Web. Therefore, participants could choose whether to fill in an on-line (smart-phone compatible) or paper-and-pencil version of the diary - both with identical content. Those who chose the on-line diary were given a flyer stating the web address of the on-line diary. The flyer also repeated the instruction to fill in the diary every day after work for two weeks and, in addition, had a space for participants to fill in their personal work goal that was generated in study two, which was also required for the diaries. Participants opting for the paper-and-pencil version were given a diary booklet and asked to fill it in every day after work for two weeks and send it back to the author by means of a stamped addressed envelope when it was complete. These participants were asked to fill in their personal work goal and their participant information in the booklet before leaving the testing room. All participants were remunerated with 20€ for a completed diary.

8.2.3 Daily Diary Measures

Participants were asked to fill in their diary at the end of each working day. The first (web) page of the diary asked for the trainee's participant number (allocated in study two), age, personal work goal (generated in study two, see Chapter 7 for details), and training job. This information allowed for comparisons between the participants' data from study two and the present study. The following two (web) pages provided explanations of key terms used in the diary, including what is meant by a broken promise at work. These explanations were presented in cartoon form to make the information more accessible and engaging for the adolescents (see Appendix 7).

Ries et al. (2000) recommend keeping diaries short, with completion time of no more than 5-7 minutes in total. To keep within these boundaries single items were favoured over longer scales in most of the measures. These are detailed below in the order in which they appeared in the diary. The diaries were in German and any items presented here have been translated into English by the author. The original measures used in the diary are presented in Appendix 7.

Personal Work Goal Progress and Salience

Personal work goal progress and salience were measured by asking participants to rate their personal work goal (which they had generated in the previous study) on two items that were devised especially for this diary. The first item based on Harris et al.'s (2003) goal progress item asked how much they had progressed towards their personal work goal over the day:"*I made very good progress on this goal today*", and the second measuring goal salience, asked how large a role their personal work goal had played for them that day, "*This goal played a large role today*". Both items were rated on a 6-point scale from "totally agree" to "totally disagree" with high scores representing high goal progress or high goal salience.

Work effort and work performance

Participant' work effort and work performance were measured using one item each that were devised by the author. Participants rated firstly, their work performance: "I worked very well today", and secondly, how much effort they had invested into working well that day: "*I tried very hard today to work wel*l" (work effort). Again, the items utilised a 6-point rating scale from "totally agree" to "totally disagree", with high scores representing high work effort or work performance.

Broken promises at work

Broken promises were measured using an open-ended response format. Participants were instructed to write down any promises made to them that had been broken that day. The promise did not have to be made on that day: "*Write down in the box any promises that were broken to you today*." Space was given to generate up to three broken promises per day. One example of a broken promise was provided as a prompt. This is a dichotomous variable with a score of 1 being allocated if one or more promises were reported to have been broken that day.

Importance of the broken promises for the personal work goal

I measured the importance of the broken promise for the trainees' personal work goal using a bespoke item designed for this diary. In the case where one or more broken promises were reported, participants were asked to rate each broken promise on its importance to the participant's personal work goal: "*How important was this promise to your own personal work goal?*" This was measured on a 6-point scale (very important to not very important) with high scores indicating that the promise was of high importance to the job goal.

Daily activation

I measured how activated the trainees were daily by asking participants to rate the extent to which they had felt 12 mood adjectives during the day on a 6-point scale. The scale related to two dimensions of arousal; energetic arousal (positive affect) and tense arousal (negative affect). This measure was a short German version of the UWIST Mood Adjective Checklist (Brunstein, 2001; Matthews, Jones and Chamberlain, 1990).

Additional Level-two outcomes

I was able to link the participants' diary data with their cross-sectional data from study 2. I used the measures of life satisfaction, the percentage of promises broken from the PsyCoVo scale, trust in trainer, meaningful work, job satisfaction, and overall goal scores. In the interests of brevity these measures are not reintroduced here as they are detailed in Section 7.2.2.

8.2.4 Cognitive testing

The diary was subject to cognitive testing before being implemented in the main testing. A sample of six vocational trainees (mean age 20.5), were interviewed at the end of a work day. These trainees all held different vocational training positions in a university. The cognitive interviewees were asked to fill out the diary for that day, using a thinking-aloud technique (Prüfer & Rexroth, 2005). Anticipated and emergent probes were also used in order to give more structure to the interviews and to follow up on any apparent problems (Beatty & Willis, 2007). These included probes regarding semantics, wording, alternative answers and general formatting and presentation.

As a result of the cognitive testing a number of slight changes were made to the diary, including adding an example in the question regarding broken promises as well as slight wording and presentation changes.

8.2.5 Analytical strategy

To investigate which promises made to the vocational trainees were broken in the diary period and to answer research question one, I analysed the broken promises using qualitative content analysis. I loosely followed Mayring's (2015, 2005) recommendations for analysing qualitative data. I used the already existing code manual from the qualitative study in this research row (Chapter 6; see Appendix 3 for code manual) to start the analysis, and added codes inductively if a broken promise did not fit a pre-existing code.

To interpret the quantitative data from this diary study, I used multi-level modelling with days nested within individual trainees. A trainee's daily responses constituted the first level and these were used to model within-person processes (e.g. what is the difference in a trainee's positive affect between

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promise break and non-promise break days?). The second level of the analysis is the between-person level, which I used to investigate whether trainees differ in these processes (e.g. how much do trainees vary in their difference in positive affect between promise break and no promise break days?).

I analysed the data using a stepwise approach, testing different sets of outcomes at each stage and finally combining them into a full model. This is recommended practice when dealing with multi-level data (Raudenbush & Bryk, 2002; Twisk, 2006). As a preliminary step, an intercept only model with no explanatory variables was tested to ascertain the intra-class correlations (ICC) for the main two-level variables. The ICC of a variable reflects the proportion of its total variance that is explained by the individual rather than day level.

The next step determined whether there was within- and between-person variance in the associations between the independent variable (whether there was a promise broken that day) and the dependent variables from the diary (positive affect, negative affect, effort at work, work performance, goal salience and goal progress). In the models the variable "broken promise" was not centred as it is a dichotomous variable with the base value 0 meaning that no broken promises were reported that day.

I then regressed each dependent variable separately in a series of random coefficients regression models. The slopes were fixed if no variation in the slopes was found between trainees and left as random if variations were present. At this stage, between-level dependent variables from the large-scale questionnaire used in Study two were added to the model set-wise. This was to determine the influence of broken promises on different between-level dependent variables and to indicate whether the effects that were found in the previous steps were in line with previous findings.

In the final step I calculated an aggregated model which included all of the dependent variables from the previous sets. A first attempt at this final model resulted in non-identification problems as the model contained more parameters than the sample size allowed. This non-identification legitimised a slightly simpler final model, so I reduced the number of parameters by removing two between-level outcomes found to be non-significant in previous steps. Furthermore, seven non-significant correlations were fixed at zero and, for comparative purposes, previous models were also recalculated with these correlations set as such. I set seven correlations at 0, therefore all model fit indices will present with 7 degrees of freedom.

I used the MPlus software (Muthen & Muthen, 2002) to analyse the data and utilised the full information maximum likelihood setting for missing data. All available data was therefore drawn upon, eliminating the need to impute data. I also used the programme's MLR estimator.

8.3 Results

8.3.1 Variations in the Number of Broken Promises Reported

At least one broken promise was reported on 16% of the 816 diary days (M= 0.16). The between-level variance was also statistically significant (see Table 30) showing that some trainees reported significantly more broken promise days on average than others. In total 51% (n= 61) of the trainees reported at least one broken promise within their diaries. Overall, 156 broken promises were recorded in the diaries.

Table 30 Variances and Means of main diary study variables results of intercept only model

	ICC Intra-class correlation	Within-level variance	Between-level variance	Mean
Positive affect-energetic arousal	.26	0.77***	0.28***	4.51
Negative affect-tense arousal	.35	0.47***	0.25***	2.43
Goal progress	.46	1.17***	1.00***	3.93
Goal salience	.49	1.31***	1.24***	3.65
Effort at work	.46	0.89***	0.75***	4.70
Performance at work	.29	0.63***	0.26***	5.03
Presence of a promise break (that day) (0/1)	.26	0.10***	0.03**	0.16
number of promises broken (that day) (0-1-2)	.31	0.13***	0.06**	0.18
Broken promise important to personal goal (0/1)[a]	.31	0.16***	0.07*	0.62
Importance of broken promise to personal goal (1-6)[a]	.41	1.93***	1.33**	3.99

Notes: n=119, f=816, cluster mean size=6.9; [a]n=61, f=123, cluster mean size= 2. Promise Important to personal goal (0/1) split dichotomously (1-3 on scale=not important, 4-6 on scale=important). *>0.05, **>0.01, ***>0.001

We see similar mean figures when taking the number of promises broken per day into account (M = 0.18). Although space was given in the diary to report up to three broken promises a day, there was not a single case of three being reported. In fact, of the 816 days there were only 14 cases of days when two promises were reported to have been broken (1.7%). Interestingly, these 14 reports were shared between 9 participants, with 4 participants reporting multiple days with two broken promises. As these means are so similar, and the cases of multiple breaks so rare, promise breaks were entered as a dichotomous variable in the models that follow with no differentiation between one or two breaks per day being made in the analysis.

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8.3.2 Qualitative Results: Content of Broken Promises

I carried out a content analysis on the 156 broken promise statements that the participants provided (see Table 31). I followed a simplified version of Mayring's (2005; 2015) analytic procedure using both deductive and inductive codes. I used the code manual stemming from my interview study from this dissertation (see Chapter Six) as a basis for the content analysis of the broken promises. As the original code manual emerged from interviews with vocational trainees about their psychological contracts, I expected most of the broken promises to be represented in the code manual in some form. So as not to repeat myself unnecessarily, I will not re-introduce the codes, categories and meta-categories that were used in the interview study in Chapter six, but will concentrate this results section and the following discussion on the larger inductive codes that are unique to this study. Because of the clear statements of the broken promises and the fact that they were already segmented into broken promise units they were relatively straight forward to place into categories and codes. There were 6 promises that could have been assigned to one of two codes, and so I discussed these broken promise statements with an independent research assistant. A consensus was made as to which code was the most appropriate for each of these broken promises. There were also four promises that I coded in a rest code about which there was not enough information within the promise text to code them accurately.

Table 31 Qualitative content analysis of the vocational trainees' broken promises

MC	C	Co	*n* broken promises
Psychological Contract State dimensions			
	Learning and teaching		30
		Learning by doing	4
		Mistakes as learning process	2
		Learning vocational trainer's responsibility	1
		Learning working partner's responsibility	1
		Responsibility and independence missing	2
		Learning centred	6
		Checking	1
		New work tasks	11
		Next step in organisation	2
	Help and Support		15
		Help	4
		Continuing Support	5
		Questions from VT not answered	6
	Valued Full Member of Workforce		5
	Fair		1

Table 31 contiued

MC	C	Co	*n* broken promises
Framework of the Psychological Contract			
	Temporal Factors		4
		Employed/taken on-promise	3
		Shorten training	1
	Daily framework		72
		Break times	9
		Free Day	21
		Overtime	39
		Holiday	4
		Location	2
		Shift Timings	2
Typology			12
	Transactional- Rousseau		11
		Money	1
		Specific duties	10
	Transitional- Rousseau		1
		Uncertainty /unstable	1
Subjective characteristics of the job			6
	Tiring		2
	Dirty work		4
Personal reference points for trainees			1
	Comparisons with others		
		Unfavourable inside comparisons	1
Rest code			2

Note: MC- Meta category, C -category, Co -code, n of broken promises- absolute number of broken promises per code. Italics show inductively devised codes.

8.3.2.1 Framework of the Psychological Contracts

In general the promises were split rather evenly, with almost half of them (76 of the 156 broken promises) falling under the meta-category framework of the PC within the category of temporal factors and a new category of daily framework. Most of the new inductive codes in this study emerged here with seven new codes being created (Shorten training, Break times, Free Day, Overtime, Holiday, Location, Shift Timings). The vast majority of these broken promises in this meta-category were related to hours worked, free days, timetabled breaks, and holiday entitlements. Common themes were that holiday entitlements were promised within the school holiday and then not realised; that the trainees were promised particular days off and then were not allocated these or not allowed to take them as a holiday day; that they were made to work over allocated breaks; and that they were told to work in a different location (e.g., a branch in a different city) contrary to what they had been promised.

The largest code in this meta-category was that of overtime with 39 promises broken relating to overtime. A very common theme was that the vocational trainees had been promises that they would not have to do any overtime, but were then required to do this after all. Below are three examples of broken promises that fall under this code:

> *"I had to do overtime today, although I was told that I should reduce my overtime hours today"*78

> *"I had to work more than one hour overtime today, although I was promised that I would only need to do one."*79

> *"I had to stay longer today, even though I was told that vocational trainees don't do overtime."*80

Under the meta-category of Framework of the PC were also the codes Employed/taken on-promise and Shorten training. Although these were relatively small codes with three promise breaks relating to future employment and one promise regarding shortening the training being reported, I consider these to be weighty promises to break with far reaching consequences for the young people. An example of an employed/taken on promise break is, "*I was promised that I would be taken on by my employer, this is now no longer the case.*"[81] The promise broken in regards to shortening the training, was as follows; "*I was promised that I could shorten* [the training], *and that was broken today!*"[82]

8.3.2.2   Psychological Contract State Dimensions

After the framework of the psychological contract, the second largest meta-category in this analysis is psychological contract state dimensions with the category of learning and teaching standing out as an important one. Here six deductive codes were used and three additional inductive ones were added to the existing code manual (New work tasks, Responsibility and independence missing, Next step in organisation). The largest of the newly induced codes is new work tasks. This is an interesting code that reflects the vocational trainees' situations. This code refers to promises being broken in respect to learning a new task at work. It could, in theory, have been integrated into the code learning centred, but I felt that it was a very specific phenomenon deserving of its own code to differentiate it. An

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[78] Ich musste heute Überstunden machen, obwohl mir gesagt wurde, ich soll heute Überstunden abbauen.
[79] Ich musste heute mehr als 1 Überstunde machen, obwohl mir versprochen wurde, dass ich nur eine machen muss heute.
[80] Ich musste heute länger bleiben, obwohl mir gesagt wurde, dass Azubis keine Überstunden machen.
[81] Mir wurde versprochen, dass ich von meinem Arbeitgeber übernommen werde, dies ist nun nicht mehr der Fall.
[82] Mir wurde versprochen dass ich verkürzen kann und das wurde heute gebrochen!

example of promises broken relating to learning a new task is, "*I didn't learn anything new today, even though I was told that I would get some new tasks today.*"[83]

In the category of learning and teaching there were also promise breaks in the deductive codes of learning centred and learning by doing. These mostly related to feeling alone or abandoned, even though support for learning had been promised to them. A lack of promised learning activities was also reported. An example of a promise break relating to the training being learning centred is, "*At the beginning of the vocational training I was promised that everything would be explained in detail. Often, though, I have to figure it out myself, without having it explained to me*."[84]

A further category in the mega-category of learning and teaching was help and continued support. There were four promises broken relating to help and five broken in relation to continued support. Being left alone to deal with problems without any help was thematised. For instance one participant reported the following broken promise; "*It was said to me that I would always be helped, but today I was left alone with a problem and had to work out a solution myself.*"[85] I used an inductive code called questions from VT not answered to cover promise breaks in relation to the vocational trainees' queries to the trainer. There were six promises in all that fell under this code an example of which is, "*I was had-a-go-at angrily today when I wanted to ask a question, even though I was told that I could ask questions anytime.*"[86]

The next category under the meta-category of psychological contract state dimensions was valued full member of the workforce. The five promises coded here were centred on the vocational trainees having the same rights as other members of staff, and to being included in decisions which would affect the trainees. One participant reported that, "*Everyone has the same rights, although me, and the other trainees, we always have to ask, and the others don't have to*!"[87]

The final category in this meta-category is that of Fairness. This was a small grouping, with only one broken promise being coded in this deductive code. The promise that was broken was, "*Fairness will be respected.*"[88]

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[83] Ich habe heute nichts Neues gelernt, obwohl mir gesagt wurde, dass ich heute neue Aufgaben bekomme.

[84] Zu Anfang der Ausbildung wurde mir Versprochen, dass mir alles genau erklärt wird. Oft musste ich mich allerdings selbst zu Recht finden ohne das mir was erklärt wurde.

[85] Mir wurde gesagt, dass mir jederzeit geholfen wird aber heute wurde ich mit einem Problem alleine gelassen und musste selbst für eine Lösung sorgen.

[86] Ich wurde heute patzig angemacht, als ich eine Frage stellen wollte, obwohl mir gesagt wurde, dass ich jederzeit Fragen stellen kann.

[87] Jede hat die gleichen Rechte, obwohl ich und die Andere Auszubildende immer fragen müssen und die Anderen nicht!

[88] es wird auf Gerechtigkeit geachtet.

8.3.2.3 Typology

The third largest meta-category was that of typology. There were twelve broken promises in this meta-category, ten of which were in the code of Specific duties in the category Transitional- Rousseau. Here, I coded broken promises which related to the trainees being promised a specific set of duties which they were to perform at work, which has been violated in some way. One trainee, for example was promised her own area of work that was not realised, "*I'm still working for everyone at the same time, although I was promised that I would get an operational area and tasks of my own.*"[89] Another trainee had to do a task outside of their specific duties, "*I had to deliver a patient's prescription to them, even though I was told that I would not be responsible for that*."[90]

8.3.2.4 Subjective Characteristics of the Job

The meta-category of subjective characteristics of the job was associated with six promise breaks, two in the deductive code of tiring. I coded broken promises in the tiring code if a trainee reported having been promised a non-tiring workplace only to find it tiring for instance, "*today I had to do a great many things, even though I was told that trainees are spared.*"[91] Lastly, in this meta-category four promises were broken in relation to dirty work. These mostly detailed the vocational trainees having to do cleaning of some kind even though they had been promised that they wouldn't have to do this.

8.3.2.5 Personal Reference Points for Trainees

I coded the last broken promise into the meta-category of personal reference points for trainees. The broken promise, "*I have to complete more work tasks than my colleagues and do more hours*"[92] was coded as unfavourable inside comparisons as the trainee was comparing their work tasks to other members of staff within the firm.

8.3.3 Quantitative results: Fluctuations Across and Within Individuals

I turn now to the quantitative analysis of the diary data. By interpreting the means and ICCs of the two-level diary variables (see Table 30) I obtained an initial picture of the fluctuations across and within the trainees. Rather positively, the mean PA-energetic arousal lay at $M = 4.5$ whilst the mean NA-tense arousal was $M = 2.4$ indicating that on average the trainees reported that they were more positively, rather than negatively aroused. The trainees' affect scores varied largely across days. Only 26% of PA-energetic arousal and 35% of NA-tense arousal were due to the individual trainees, the remainder of the variance being on the within-level. This reveals that the daily situation seems to

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[89] ich arbeite weiterhin für alle gleichzeitig obwohl mit versprochen wurde, dass ich einen eigenen Arbeitsbereich mit eigenen Aufgaben bekomme.
[90] Ich musste einem Patienten ein Rezept vorbeibringen, obwohl mir gesagt wurde, dass ich dafür nicht zuständig bin.
[91] Ich musste heute extrem viele Sachen machen, obwohl mir gesagt wurde, dass Azubis geschont werden.
[92] Ich muss mehr Aufgaben erledigen, als meine Kolleginnen und mehr Stunden absolvieren

account for much of the changes in affect. Nevertheless, the between-level variance was highly significant for both negative and positive affect.

A good deal of the variance in the trainees' performance self-ratings was also attributed to fluctuations in the daily situation with only 29% of the variance occurring at the individual level. As Table 30 shows, the case is rather different with reported effort at work, with just under half of the variance in effort (46%) being attributed to the individuals themselves, rather than to the daily situation. For both work performance and effort the variances were found to be highly significant.

Daily goal progress and daily goal salience were found to have a similar pattern of variance to effort, with intra-class correlations of .46 and .49 respectively. This means that just over 50% of the variance in these goal measures were estimated to be due to fluctuations in the daily situation. The person-level variances of these two measures were also highly significant (see Table 30).

To sum up the results of these preliminary steps, I found that the intra-class correlations of the main variables vary enough on the between-level to warrant the use of multi-level analyses to make sense of the day-to-day fluctuations in the outcome variables (Hox, 2010; Harris et al., 2003).

8.3.4 Psychological Contract Breach as a Predictor of Daily Activation, Daily Work Appraisals and Daily Goal Measures

To test the first 3 sets of Hypotheses (1a to 3b) negative and positive affect, work appraisals (performance and effort) and goal measures (salience and importance) were regressed on the predictor variable, presence of a promise break. These regressions were estimated on both the within- and between-levels. The results are all standardised and are presented under Model 1 in Table 32. The R^2 of model 1 and model 6 results are presented in Table 34

Hypothesis 1a and 1b proposed that trainees' daily activation scores would be associated with broken promises which I tested on the within- and between-levels. Indeed, we find that trainees reported more negative affect (1a) and less positive affect (1b) on days when a promise was reported to be broken. These findings were highly significant with the association of negative affect being slightly stronger than the association of positive affect. On the between-level, trainees reporting more days when promise breaks occurred averaged over their diary entries had significantly higher average negative affect and lower average positive affect than those with less reported promise breaks (see Model 1; Table 32). The variance explained by these variables was less than 3% on the within level and approximately 6% on the between level which are modest (see Table 34). The significant results lead met to fully accept both Hypotheses 1a and 1b.

Hypotheses 2a and 2b proposed that work appraisals would be negatively associated with broken promise days. In the case of performance at work there was no evidence to support the existence of a

link between a broken promise and performance at work on the daily-level, but a highly significant negative association between performance at work and broken promise days on the person-level was evident (see Model 1; Table 32). Trainees who report a higher than average number of broken promises rate themselves as working less well overall during the diary period than counterparts who experienced less promise breaks. Broken promises explained 18% of the variance in work performance on the between level which can be considered a robust effect (see Table 34). As the relationship was only present at the person-level hypothesis 2a was partially accepted.

When considering work effort, there was sufficient evidence to partially support hypothesis 2b. The higher the number of broken promise days a trainee reported — averaged over their total diary days — the lower the overall effort was for that time (between-level). This association could explain 5% of the variance in effort (see Table 34). On the within side of the model (Model 1; Table 32), however, the beta was positively poled, meaning that there was a slight rise in effort for a day in which a promise was broken which is contrary to what was predicted. This rise was not significant at the two-tailed level. As a significant negative relationship between broken promises and effort was found on the between level of the model and not within, hypothesis 2b is partially accepted.

Table 32: Standardised beta coefficients (SE in parentheses) and confidence intervals for predicting the outcomes of a broken promise

	Within level (daily-level)						Between level (person-level)											
	NA	PA	Effort	Perform'	G-progress	G-salience	NA	PA	Effort	Perform'	G-progress	G-salience	SWL	Job sat'	Meaning work	Trust	Goal sc'	% broken
Model 1																		
Broken	**0.14*****	**-0.10****	0.08	-0.02	-0.03	-0.03	**0.23***	**-0.26***	**-0.22***	**-0.42*****	**-0.19***	-0.10						
promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.12)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.12)**	(0.12)						
Model 1 Lagged [a]																		
Broken	-0.003	-0.06	-0.12*	-0.07†	-0.01	-0.05												
promise	(0.04)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)												
Model 2																		
Broken	**0.14*****	**-0.10****	0.08	-0.02	-0.03	-0.03	**0.23***	**-0.26***	**-0.22***	**-0.42*****	**-0.19***	-0.10	0.01					
promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.12)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.12)**	(0.12)	(0.10)					
Model 3																		
Broken	**0.14*****	**-0.10****	0.08	-0.02	-0.02	-0.03	**0.23***	**-0.26***	**-0.23***	**-0.43*****	**-0.19***	-0.10		**-0.14†**	-0.02	**-0.33*****		
Promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.12)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.11)**	(0.12)		**(0.09)**	(0.12)	**(0.10)**		
Model 4																		
Broken	**0.14*****	**-0.10****	0.08	-0.02	-0.03	-0.03	**0.23***	**-0.26***	**-0.22***	**-0.42*****	**-0.19***	-0.10					**-0.14†**	
Promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.12)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.12)**	(0.12)					**(0.10)**	
Model 5																		
Broken	**0.14*****	**-0.10****	0.08	-0.02	-0.03	-0.03	**0.231***	**-0.26***	**-0.22***	**-0.42*****	**-0.19***	-0.10						**0.41*****
Promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.121)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.12)**	(0.12)						**(0.14)**
Model 6																		
Broken	**0.14*****	**-0.10****	0.08	-0.03	-0.03	-0.03	**0.23***	**-0.26***	**-0.22***	**-0.42*****	**-0.19†**	-0.09		**-0.14†**		**-0.33*****	**-0.14†**	**0.41****
promise	**(0.04)**	**(0.04)**	(0.05)	(0.05)	(0.04)	(0.03)	**(0.12)**	**(0.15)**	**(0.13)**	**(0.12)**	**(0.12)**	(0.12)		**(0.09)**		**(0.10)**	**(0.10)**	**(0.14)**

Notes: n=119; f=816; [a]n=118, f=697, *M*=6 days per person. Significance values at the one-tailed level. †>0.10, *>0.05, **>0.01, ***>0.001; Significant findings are presented in bold type face;

NA= Negative Affect; PA= Positive Affect; Perform'= Performance at work; G-Progress=Personal work goal progress; G-Salience=Personal work goal salience; SWL=Life Satisfaction;

Trust=Trust in trainer; Meaning Work= Meaning at work Goal sc'=goal scores; % broken=Percentage of promises made that are broken.

I turn now to the personal job goal measures. There was only partial support for hypothesis 3a. Daily personal work goal progress was only significantly negatively associated with broken promise days on the between-level (see Model 1; Table 32). This means that trainees who reported more broken promise days, averaged out over their diaries, made significantly less progress towards their work goals (averaged over that time) than trainees reporting less broken promise days. This association could explain 4% of the variance in goal progress on the between level (see Table 34). I found no evidence for a within-person effect of broken promise days on personal work goal progress. Because there was a significant relationship between vocational trainees but not within them, I partially accept hypothesis 3a.

I found no evidence of associations between broken PC promises and goal salience within this diary study. No significant relationship was found on either the within- or between-levels. For this reason hypothesis 3b was rejected.

8.3.5   Differences Between Trainees: Random-Slopes

I was interested in whether the associations presented above were consistent across trainees, or whether some trainees presented stronger associations between the variables than others (research question 2). I therefore tested each regression slope separately in a series of random coefficients regression models. I found that none of the slopes varied between people, indicating that the strength of the relationships between broken promises and the dependent variables tested are consistent across trainees. As no random slopes were found on the within- or between-levels, the regression slopes were fixed for further analyses. This answer to the second research question renders research question 3 obsolete. For this reason no intercept- and slopes- as outcome models were run.

8.3.6   Lagged Effects: The Day After

I investigated whether the relationships between broken promises and the dependent variables carried over until the next working day. To test this I calculated the within side of model 1 again, this time taking the activation (positive and negative affect), work appraisals (effort and performance) and goal measures (salience and progress) for the next working day and regressing these on broken promises. The between-level of the model was calculated as intercept only, as it would theoretically be identical to the between side of Model 1.

To interpret these results correctly it is important to note that "the next working day" means the next time the trainees filled in their diary on a workday. This could, indeed, be the next calendar day, however, as the trainees attend their school training this could also mean that there was a weekend, and/or one or even two school days in between. Despite this methodological challenge, the results are compelling.

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The lagged model is presented in Model 1 Lagged in Table 32, and indicates that the links between broken promises and activation do not tie over to the next day. No significant results were found when regressing positive or negative affect scores for the day after a promise break was reported, therefore I rejected hypothesis H1L. Similarly, I also reject hypothesis H3L. There was no indication of an association between personal work goal salience or personal work goal progress for the working day following a promise break.

Support was found, however, for hypothesis H2L with both work effort and work performance on the next working day being significantly (performance marginally so) negatively associated with broken promises. In other words, trainees put in significantly less effort at work, and perform worse at work on a day after a promise has been broken. This is of particular interest, as these effects were not found for the actual day that a promise was broken.

Hypothesis number four (H4) was intended to be used to test whether the importance of a psychological contract promise break was a moderator in the associations between a promise break and affect, work measures and goal measures. This analysis of the moderator model resulted in a non-identified (under-identified) model. This is due to the fact that from the 816 days' worth of data that was collected, 156 of these contained information about a promise break, reducing the participant number to 61 and the daily data to 156 This was not sufficient to compute any moderator effects for the given parameters. Hypothesis number four was therefore neither accepted nor rejected. Additional data collection that is outside the scope of this project is needed to continue this line of questioning.

8.3.7 General Level two Outcomes of Broken Promises

Models 2 to 6 (presented in Table 32) are the result of a series of random intercept models in which I added level 2 outcome variables set wise to the predictor and outcome variables in Model 1. These person-level variables were obtained from the cross-sectional study detailed in chapter 7 and represent more general scores compared to the averaged daily scores calculated for the diary's other level-2 variables. The sets of variables were added separately (models 2-5) and not combined until Model 6 (see Section 0). For each of these models the regression coefficients relating to both the daily- and person-level variables used to test hypotheses 1-3 are extremely similar to those presented for Model 1, and, as the significance levels are all identical to those of Model 1, these will not be presented again.

Model 2 (see Table 32) introduced life satisfaction as a level-2 dependent variable. I found that there is no significant association between the averaged number of promise breaks a person has in their diary and how satisfied they report being with their life. This leads me to reject hypothesis 4.

I used model 3 (see Table 32) to test the additional set of dependent variables relating to the individuals' personal work attributes. These were: job satisfaction (H6a), meaningful work (H6b) and

trust in trainer (H6c). Broken promises were negatively associated with job satisfaction; the more promises that were broken on average, the lower the job satisfaction. This led me to accept Hypothesis 5a. This association obtained a moderate significance value $\beta = 0.14$, $p<0.10$, however, as the sample size for the between level is $n=119$, this is still considered to be of note as one must not forget that with multi-level analyses of this sort, the results are more compelling than when one simply compares cross-sectional data (Conway & Briner, 2002). This model also helped me to reject hypothesis 5b, as the average number of broken promises was not significantly related to how meaningful trainees' found their work to be in general. Finally, using this model I was able to accept Hypothesis 5c as a highly significant association was found between broken promises and trust in trainer at the between-level; the more promise were broken on average over the diary period, the less the trainees trusted their trainers generally.

Moving now to model 4, I tested the association of broken promises to the aggregated goal appraisal for the state of the participants' most important work goals. These included measures of the commitment, progress, attainability and trainer support of the vocational trainers' most important personal work goal. I found a moderately significant relationship between broken promises over the diary period and the aggregated level two work goal appraisals (see Table 32). I therefore cautiously accept hypothesis 6 at the $p<.10$ level.

The final person-level variable that was investigated concerned an overall rating of the psychological contract: the percentage of promises broken on the PsyCoVo scale. From model 5 that it is clear there is a strong significant relationship between the number of promises broken— averaged out over a participant's diary— and the percentage of promises they reported as having been broken from the PsyCoVo scale. This leads me to accept the seventh and final hypothesis.

8.3.8 Full model: Broken promises as a Predictor for Daily- and Person- Level Outcomes

For the last step in this study, a full model was estimated. Here, the six within- and between-level diary measures (PA and NA, work effort and performance, salience and progress), and six between-level questionnaire variables (life satisfaction, job satisfaction, meaningful work, trust in trainer, goal appraisals, percentage of promises broken) were regressed on daily promise breaks.

As stated earlier, a first attempt at this sixth model resulted in non-identification due to the large number of parameters. I therefore sought a strategy to simplify the model. Firstly, as the results of models 2 and 3 indicated that the regression coefficients related to life satisfaction and meaningful work were not significant, these variables were removed from the equation. This left 10 dependent variables in the final model. Secondly, I set seven non-significant correlations to 0, two on the within

level and five on the between level thus reducing the parameters enough for the model to run (see Table 33 for details).

This final model serves to present the main findings in one model, whilst confirming the results found in the previous 5 models. The patterns of the previous models are paralleled here, with no changes appearing in the significance values of any of the relationships presented above. This means that the conclusions reached regarding experimental hypotheses 1-7 are further supported and also indicates that these relationships appear stable.

Table 33. Correlations for within- and between-level diary measures with 7 correlations set at 0

	Within					
Variable	1.	2.	3.	4.	5.	6.
1. NA	—					
2. PA	-0.32***	—				
3. Effort	0.00	0.25***	—			
4. Performance	-0.16*	0.42***	0.46***	—		
5. Goal progress	-0.13**	0.27***	0.31***	0.39***	—	
6. Goal salience	0.00	0.17***	0.21***	0.24***	0.63***	—
	Between					
Variable	1.	2.	3.	4.	5.	6.
1. NA	—					
2. PA	-0.47***	—				
3. Effort	0.00	0.23*	—			
4. Performance	-0.30*	0.68***	0.26*	—		
5. Goal Progress	0.00	0.29***	0.00	0.08	—	
6. Goal Salience	0.00	0.28**	0.12*	0.00	0.85***	—

Note: between-level 5 correlations set at 0; within-level 2 correlations set at 0; The variable Broken promises is not included in this table, as Mplus does not calculate the P values for the predictor variable in the model instead the β values are calculated as a more accurate estimation.

The strongest associations between broken promises and the outcome variables seem to be on the person-level. The following relationships are of particular note. Firstly, the number of daily promises broken averaged out over a trainee's diary period is a good predictor of their self-reported work performance for that same time period explaining 17.2% of the variance (see Table 34). Secondly, the

relationship between daily broken promises and overall trust in their trainer was found to be rather strong, with approximately 11% of the variance in trust being accounted for through broken promises (see Table 34). I also found that on the person-level daily broken promises explained nearly 17% of the variation in the percentage of promises recorded by the PsyCoVo.

Taking the daily-level under the loop, broken promises are most strongly associated with daily affect (activation), with the effect size here being small. Broken promises explain 2% of the variation in negative affect and 1% of the variance in positive affect (see Table 34). Nevertheless, apart from for the variables outlined above, the residual variances of this model are rather high, indicating that much of the variance on the within level, and some variance on the between level is yet to be accounted for.

Table 34. Effect sizes of broken promises on the within- and between-level variables for models 1 and the final model 6 reported to 3 decimal places.

Model Variable	R^2 (Within)	R^2 (Between)
Model 1		
Goal progress	0.001	0.037
Goal salience	0.001	0.011
Work performance	0.001	0.177
Work effort	0.006	0.048
Positive affect (energetic arousal)	0.010	0.066
Negative affect (tense arousal)	0.020	0.053
Model 6		
Goal progress	0.001	0.035
Goal salience	0.001	0.009
Work performance	0.001	0.172
Work effort	0.006	0.050
Positive affect (energetic arousal)	0.010	0.066
Negative affect (tense arousal)	0.020	0.054
Job satisfaction	—	0.019
Goal appraisals	—	0.019
Trust in trainer	—	0.109
Percentage of promises broken	—	0.165

8.4 Discussion

With this study I set out with the aim of investigating the impact of broken psychological contract promises on vocational trainees at work. The affective, motivational and behavioural consequences of broken PC promises were studied on a day-to-day basis. The psychological contract here is viewed as a type of contextual framework in which the young people navigate their daily work lives. I postulated that breaking psychological contract promises would have a negative effect on the young people's mood, work attitudes and personal work goal measures, especially so if the promise was highly relevant to the goal. The results were mixed, but an overall general trend of disharmony on a broken promise day can be extrapolated from the results.

8.4.1 Number, Gravity and Content of Broken Promises

Firstly, I wish to discuss the sheer number, gravity and content of broken promises that were reported by the trainees. Over the two week period more than half of the vocational trainees experienced a breach of psychological contract with at least one promise being broken. This is much higher than cross sectional studies have reported in the past (Roberson & Rousseau, 1994) but somewhat lower than reported in Conway & Briner's (2002) diary study of adult workers. I do find this to be a rather high rate of promises being broken especially as these young people are at the beginning of their working lives, trying to find their place in the workforce. Having constantly shifting goalposts within which to act in the form of promises that are made being renegaded upon, seems to be a rather unfair way to treat newcomers to the world of work.

Are the promises that are broken trivial ones? Indeed, to an outside observer a few of the promises being broken could be classed as minor, such as having to work over a promised lunch break, or being made to clean up when it was promised that was not part of the young person's job. Nevertheless, these more trivial breaks were regarded by the young people as being reportable incidences and should be treated as such. Indeed, a series of minor promise breaks may be as disturbing over time as one critical promise break. Conway & Brinner, (2005) suggest viewing the PC as a process and we can imagine how a slowly eroding PC that diminishes daily in integrity due to a series of small breaks could have far reaching consequences. This idea was not directly investigated in this study in terms of one high magnitude break versus multiple low magnitude breaks, but would be an interesting avenue for further study. Indeed, some of the promises broken in the two week period could be considered major ones. These included, for example, being told that they would not be taken on by the firm at the end of their apprenticeship when this had been guaranteed, not being allowed to cut their training by a year although this had been promised, or being left alone and in charge when they had been promised that trainees would not have to do this.

Interestingly, major themes in the content of promise breaks were reported. By far the largest group of breaks was clustered around the formal framework of the job. This included overtime arrangements, break entitlements, holiday planning and free days which were all added as separate codes to differentiate these framework issues. Although the framework of the PC was seen to be discussed in the interviews study (see chapter six) these issues did not seem to carry so much weight, therefore I did not included it in the PsyCoVo scale that I developed. From the results of this content analysis, the indication is that these formal foundations are an everyday issue for many vocational trainees that are noteworthy on the daily level, and items should be added to the PsyCoVo to reflect this. The largest of all of the codes was overtime. It could be that vocational trainees are very aware of their overtime arrangements, as they tend not to be entitled to overtime pay and so notice even the smallest amount of extra time spent in the workplace. A second explanation could lie within the diary questionnaire itself as I included an example of a broken promise to show how to fill in the questionnaire. This fictional example was, "I *had to stay longer today, even though I was told that trainees don't have to do any overtime."[93]* It could be that because the young people read this broken promise every day they filled in their diaries, that they were more prone to notice this particular violation when it occurred. DeLongois, Hemphill and Lehman (1992) warn from diary methods having a heightened awareness of the phenomenon under scrutiny which can lead to more prevalent reporting over time. A solution to this would be to remove the example if the items were the diaries to be used again.

Very much in line with the interview study reported in Chapter six, the next largest theme that was raised by the broken promises were that of learning and teaching. It was noticeable that the young people in this study identified many broken promises which limited their learning in some form or other, be it through not being shown new tasks, not being allowed to learn by trying it out although this was promised, or the work environment not fostering the trainees by not being as learning centred as promised. Of course, at its core vocational training programmes have a main aim — to teach the trainee to be a competent worker. If there are promises being broken in regards to this main aim, then that, to my mind, can be considered problematic for the young person, especially if they have personal goals focussed on learning their chosen trade the best they can. Looking at the PsyCoVo learning and teaching scale, most of the promises that were reported to have been broken would have been covered by existing items. One prevalent code emerging from the study, however, is not represented in the scale. The code new work task reflects a specific kind of continuous learning which I differentiated from the continuous learning code, and I advise that an item be added in the PsyCoVo to pick up specifically on promises that are broken in regards to being taught new work tasks.

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[93] Ich musste heute länger bleiben, obwohl mir gesagt wurde, dass Azubis keine Überstunden machen.

Of the remaining broken promises, it seems that for the most part they reflect the young peoples' positions in finding their place in the workforce. This is evinced in the number of promise breaks relating to the young people's specific duties at work, being seen as a fully-fledged member of the workforce and having to do the dirty work. That the working partners broke promises in these regards does not seem surprising, as these broken promises parallel the promises discussed in the interview study (chapter six). Such daily trials, then, appear to be rather typical of the working situation which vocational trainees face.

As a side note, these qualitative findings do go some way in verifying the validity of the PsyCoVo scale items (see chapter 7). For the most part the broken promises which were recorded by the trainees would have been reflected in the PsyCoVo scale. Only the category of framework of the PC which was severely underrepresented in the scale would need updating, along with the code new work tasks under the bracket of learning and teaching.

8.4.2   Person and Situational Variance

Initial analyses of the results showed that for mood, and self-reported performance at work the daily situation was a much larger factor that the individual themselves. This indicates that daily fluctuations in the environment could have a large impact on the trainees, both in the way they feel and how well they perform at work. In the cases of effort at work, daily work goal progress and daily goal salience the variance lay between 46% and 49% being due to the person themselves. This means that over half of the variance in these goal measures and effort can be attributed to the daily situation. This provides further justification for the view that the work environment plays a large role in the lives of these adolescents in terms of goals and behaviours at work. This variance may be due to a host of environmental stimuli or events, but I turn now to discuss the psychological contract breaks as a possible predictor of a part of this variance.

8.4.3   Promise Breaks as a Negative Environmental Factor

8.4.3.1   Daily Mood

In the current study I found that vocational trainees reacted negatively to a daily instance of a promise break. There were significant drops in the adolescents' positive activation mood on days where a promise was broken, and on these days there was a significant increase in tense arousal. In other words a promise break leads the vocational trainees to be less energetic and more negatively activated. A promise break is experienced as a negative incident when it occurs. This finding confirms the association of broken promises impacting negatively on mood, which has been found in cross sectional studies in the past (Zhau, et al., 2007; Montes & Irvings, 2008, Bolger et al., 1989) and in a diary study (Conway & Brinner, 2002). I found that this change in mood was short lived, however, as

there was no significant change in the young peoples' mood when taking the day after the promise breaks into account.

When looking at the effect sizes of broken promises regressed on daily mood, Conway and Brinner (2002) found large Beta coefficients and reasonable R^2 scores, and state that broken promises must be considered as one of the most destressing events that are experienced, on a par with arguing with one's spouse. Unlike Conway and Brinner (2002), I found small effect sizes on the within level with only 2% of the variance in daily negative arousal and 1% of daily positive arousal being put down to broken promises. The variation between persons was moderate, at 6.6% (energetic arousal) and 5.4% of (tense arousal). This indicates that although broken promises impact significantly on individual's activated mood, there are still environmental and person related explanations for the differences in mood yet to be accounted for in vocational trainees. It seems when comparing these results to Conway and Brinner's (2002) that there may be other daily factors specific to vocational trainers that account for the residual variance as more variance was explained in their study of older, more experienced workers.

8.4.3.2 Work Effort

Cross-sectional studies have found a number of self-regulatory reactions to broken PC promises including withdrawal from work tasks (Rayton & Yalabik, 2014) less absorption in tasks (Bal, 2008;) and making less of an effort at work (Bal, 2008; Parzelfall & Hakenen, 2010; Rayton & Yalabik, 2014). From a motivational standpoint I found effort at work to be the most interesting of these constructs to consider as effort put in at work is a reflection of how motivated a worker is. In study two, I found that the percentage of promises broken to the vocational trainers was linked to less reported OCBs which entails being less conscientiousness and less altruistic at work as well as performing their duties less well (see section 7.3.4.1.). I wanted to investigate this on the daily level to discover whether specific incidences of promise breaks would lead to lower effort on that day, also to find out whether trainees whose contracts were regularly violated would be less inclined to try hard at work. I found support for only one of these theories, as effort was negatively associated with work effort on the between level only. This means that vocational trainees who reported more instances of promise breaks over their diaries reported putting in less effort at work over that period. On the within level on days where a promise was broken, participants reported putting in no less effort at work for that day. The variance explained by this model is small, however. On the between level approximately 5% of the variance of effort at work can be explained through promise breaks over the day, which means that much of the variance in effort is not explained by this model.

One explanation why vocational trainees may not report lowered effort at work on days with a promise break could be due to timing. When devising the diaries I did not include a time scale for the broken promises so it is not clear at what time in the day the promises were broken. If a promise was broken

at or near the end of the day, for instance, a trainee being told that they were not allowed to leave at the promised time and that they must do overtime, then it is conceivable that the young people's effort over the whole day was not affected by the break but that there would be repercussions the next day. As I had hypothesised an effect that extended into the next day (H2L) before starting the analysis, I am able to discuss the plausibility this theory.

8.4.3.3 Lag effects

I tested the data for lagged effects. This means testing whether a broken promise one day lead to a significant decrease in effort at work the next day. If timing were the issue rather than that there was no effect of a broken promise on effort, one would expect to see a drop in the work effort the day after a promise break occurred. It is reasonable to think that the motivation to try hard at work would be lower the day after a break occurs. Previous studies have postulated that there is a constant reassessment of the psychological contract parameters after promise breaks (de Vos, Buzens & Schalk, 2003). This would presumably be occurring the next day at work, with the trainee making amendments to the employee side of the psychological contract and lowering their effort to redress the in-balance of the contract (Jensen, Opland, & Ryan, 2010; Shaw & Barksdale, 1998). I tested the self-rated work effort the day after breaks occurred (H2L) and found that the work effort was significantly lower than when no promise had been broken. This provides some evidence that a reassessment and rebalancing does actually occur the day after a break. The effect size here was, again, small as it explained under 2% of the variance.

To my knowledge, there are no diary studies that have investigated whether promise breaks have a negative motivational role on work effort the next day so these findings may help us understand the role PCs play in motivating workers to work hard. In order to unpick the question further, and to find out whether timing really was at the heart of the fluctuating effort put in at work, a further study could measure more than one time point in the day, using a momentary sampling procedure to pinpoint the time a break occurred and to see the impact of this over smaller time slots.

8.4.3.4 Work Performance

Turning now to discuss the data related to work performance, we see that there was only partial acceptance for hypothesis 2a — that daily broken promises would lead to lowered daily work performance. We can see that although the betas for daily work performance on the within side of the model were negatively polled, meaning that there was lower self-reported performance on days with promise breaks; this was not a significant relationship. Nevertheless, on the between side of the model a significant negative relationship was found, meaning that over the entire diary period trainees who reported more broken promises also reported performing significantly worse at work than trainees with none or fewer broken promises. The variance explained by this model on work performance is

reasonable. On the between level approximately 18% of the variance of performance at work can be explained through promise breaks over the day, which means that some of the variance in performance is not explained by this model.

There are two explanations as to why there was no significant daily reaction to a broken promise in terms of work performance. Firstly, as with the case of work effort, a broken promise on a particular day may not have affected individual vocational trainees' work performance if the PC breach was at the end of the day. This would not affect the work performance throughout that day but perhaps consequences emerge the next day. I had expected performance to be lower on the day of, and the day after a promise break anyhow, and so tested the lag data (H2L). There was marginal evidence of a link between a promise break and reduced work performance the next day, with the regression reaching the $p < 0.10$ level. Taken in combination with the similar results of work effort, this provides support to the idea that a vocational trainer will withdraw work related behaviours that profit the firm the day after a promise break, perhaps to redress the unequal balance of give-and-take in the psychological contract, or as a consequence of lowered motivation and moral.

Surprisingly there is not a non-significant effect of broken promises on work performance on the within side of the model, i.e. the day-to-day level. In a large meta-analysis (Zoah et al., 2007) breaches in PCs were found to be strongly negatively related to two kinds of performance measures, in-role behaviours and OCBs. These findings indicated that workers with breached PC promises display lower productivity and are less likely to finish their job tasks, and produce a lower standard of work than workers with a PC that is intact. Similar findings can be found throughout the PC literature in cross sectional studies using both composite and global measures of PCs (Bunderson 2001; Kickul, Lester & Finkl, 2002; Lester et al. 2002; Restubog, et al., 2009; Tekleab & Taylor 2003; Turnley et al., 2003). These studies do differ from my diary study in both design and approach. Most research linking PC breach to performance measures of some kind, do not ask participants to report actual promises that are broken, but ask them to rate on a pre-defined list generic promises that are supposed to apply to most workers. This simplifies the analysis process, however may not be reflecting the intricacies of the PC relationship and therefore not extracting reliable data. My diary study asks participants to report on specific instances of broken promises per day, which should, in theory, be a more accurate measure of promise breaks than more global PC break scales. This indicates that the associations between PC breaks and work performance may not be as dramatic as previously thought.

A further explanation for the only partially accepted hypothesis of broken promises on daily performance lies in the performance rating scale I used. In order to keep the diary as short as possible, I utilised a one item measure for performance which I developed myself. This asked the vocational trainees to rate the sentence "*Today I worked very well*" on a six point scale. It could be that using a multi-item scale here would have covered different aspects of performance that may have been more

affected by a broken promise. Restubog, et al. (2006) found that there were different reactions to breaches in two types of employee performance (in-role behaviours and civic-virtue performance). The negative association between breach and civic-virtue performance was larger than that of breach and in-role behaviours. This difference between the performance measures was made even clearer when adding a mediator variable of affective commitment into their model. Whilst affective commitment fully mediated the relationship between psychological contract breach and civic virtue behaviour, this was not the case between breach and in-role performance. A possible and plausible explanation of this was given: the types of performance behaviours may have differing antecedents.

My performance indicator taps general in-role behaviour. This is thought to be more linked to rewards and incentives, skills and abilities (Borman & Motowidlo, 1993), and organizational procedures (Staw & Boettger, 1990), than to civic virtue, which is linked rather to more attitudinal antecedents such as job satisfaction (Organ & Ryan, 1995) and personality traits (Organ,1990). Vocational trainees are given specific jobs to fulfil, which are considered minimum requirements of their jobs and which must be learned. If these are not fulfilled the trainees face the threat of failing their traineeships when tested on them. In-role performance is therefore perhaps not as elective for these youths as OCBs or civic virtue performances, or indeed, for more established employees. Reactions to broken promises in terms of in-role behaviours may, therefore, be dampened or limited, for fear of repercussions in the long run. Further research could investigate the difference between in-role and extra-role behaviour reactions to promise breaks in vocational trainees, by using a longer performance rating scale which differentiates between the two types of performance.

In general, the vocational trainees reported performing well at work leading to a high mean on the self-reported performance score (see Table 30). The scale is a 6 point scale with the diary results yielding a mean of 5.03 (as the ICC value was acceptable and the within-and between- level variances were highly significant, the scale was accepted for use in the analysis). This is similar to the findings in the previous cross sectional study (see chapter 7), where the mean of the OCB performance score was rather high (5.82 on a 7 point scale). This indicates that the vocational trainees are perhaps not yet able to distinguish subtle differences in their performance at work, assuming that as long as they are present and somehow completing the minimum requirements of the job, they must be working very well. Truly critical reflection of one's own maximum daily performance and the ability to rate one's own performance very accurately may be something that workers become better at through practice and experience. This experience is lacking in the case of trainees who are new to the workforce.

8.4.3.5 Personal Work Goals

The final daily variables that I tested in this diary study against the backdrop of the psychological contract were personal work goal progress and personal work goal salience. I expected to find a negative association between broken promises on a particular day and a vocational trainee's work goal

progress (H3a) and work goal salience (H3b) on that day. I fact I found this to be only partly the case. I found that although work goal salience was seemingly not affected by broken promises, work goal progress was. Vocational trainees reporting higher incidences of broken promises over the two-weeks had significantly lower work goal progress than trainees with fewer broken promises or none at all. This accounted for a small amount of variance in goal progress on the between level (R^2=0.04) with much of the variance here still undetermined. I also tested whether there were negative effects on the trainees' personal work goal the day after a promise break occurred, however, none were evident.

It is not clear why trainees' goal salience was not affected by broken promises. One explanation for the non-significant findings may lie in the item itself. I asked trainees to rate how important a role their goal had played that day. This item may be too broadly defined and interpreted differently by different trainees. Indeed if goal progress is made then the goal would have presumably played an important role. On the other hand, if the young person wishes to progress towards their goal but a broken promise puts them into the position where goal progress is not possible, they may feel conflicted and restrained by a broken promise. These feelings of preoccupation and rumination on the unreachable goal may also be interpreted as "playing an important role" for the trainee.

In the case of work goal progress, although the analysis did not uncover a lowered progress rate as a reaction to broken promises on a daily basis (within) there were differences between trainees. The results show what I had anticipated, which is that if you are unlucky enough to be a trainee with a PC partner who is unreliable in keeping their promises, this leads to significantly lower goal progress in general. As postulated in the introduction and Chapter 5, I believe this could be due to a working situation that is non-facilitative to the personal work goal. Firstly, goals are chosen and then plans made to reach them in a specific context (Salmela-Aro, 2010; Schulman & Nurmi, 2010). In the trainees' cases this context is their vocational training job. If this context is shifted, altered or constricted, due to a broken promise, then the context and attached resources may not be congruent to goal progress any more, thus making progress towards the goal unmanageable. Previous studies have demonstrated that non-facilitative environments can lead to lowered personal goal progress and well-being (Maier & Brunstein, 2001; Pomaki, Maes and ter Does, 2004). My results are in line with these findings but my study goes further, in that I identify a specific negative situational feature of the work context (a PC breach) that has an impact on the congruence of the situation for personal goal progress.

To sum up, broken PC promises have an effect on vocational trainees' goal progress, affect and work attitudes and behaviours. I set out a research question for this study which was to investigate how much trainees differ in the strengths of these associations. I took each variable in turn and tested whether there were random slopes which would indicate differing strengths of associations in different individual trainees, but these were all non-significant. For the further analyses the regression slopes were fixed between the trainees. This result indicates that vocational trainees tend to have very similar

responses to broken promises. This is rather surprising as I was expecting differences here since the trainees in my sample represent a range of jobs and schooling.

Research question three posed the question as to what may be the reason for any differences in associations. As the slopes were not random, further analysis of the data to answer this question would have been fruitless. I can only suggest possible explanations for the similarities between the trainees' strengths of associations to broken promises. One explanation may be that extreme reactions to broken promises would be undesirable for a trainee in their working position. For vocational trainees at the workplace, there are a set of rather rigid formal minimum requirements to which they should adhere. Failure to conform to the minimum course requirements and production goals, could lead to a trainee being disciplined or even fired, and not being able to complete their training certification (BIBB, 2016). Such standards would apply regardless of whether or not a promise had been made to them.

It was clear from the interview study that I carried out (see Chapter 6) that trainees tend to be monitored very closely by their superiors and so any outbursts, deviant behaviours or drops in production or work quality would likely to be picked up on and dealt with rapidly by the young person's vocational trainer. This controlled context and their low ranking in the workplace hierarchy may serve to dampen any extreme differences between trainees in the strength of the associations between broken promises and affect, work attitudes and goal activities. When interpreting these results then, it could be that the reactions displayed by a vocational trainee when faced with a broken promise may be rather more context driven and measured than those of a worker with a fixed contract who has tenure at a place of work. Individuals who may be prone to more extreme reactionary behaviours to stimuli may curb these behaviours because of what is at stake— a training qualification which will serve them in their adult lives. For these young people they perhaps simply cannot afford to stand out in a negative way, even when treated unfairly by their PC partners.

8.4.3.6   General Between level variables

As an interesting additional feature of this study using the participants' identification codes, I was able to link participants' diary data to their responses from the previous cross-sectional study. Thus, I was able to triangulate the data from the cross-sectional study, whilst analysing the broken promise occurrences during the diary period, in relation to more general work attitude measures. For this study I chose to include a measure of general life satisfaction, three work related attitude and satisfaction measures (job-satisfaction, meaningful work, and trust in trainer), the personal work goal appraisals (in an aggregated form) and the percentage of promises broken from the PsyCoVo scale.

One limitation of this approach, which should be mentioned before continuing this discussion, is that because the diary study took place after the cross-sectional data was collected (typically the following Monday); there can be no evidence for a causal relationship between the incidences of broken

promises in the diary and the responses in the cross-sectional study. Nevertheless, incidences of broken promises in the diary data period are likely to be indicative of a problematic PC in general, so the results are informative in that sense. Interpretation of the results, should, therefore, be done with this in mind. These results can only represent a very general trend. The analysis for these additional level two variables was done in a stepwise manner, with groups of variables being switched into the model at each stage. Please refer to the analytic strategy for more details on this procedure. Within this discussion I refer to the final full model (Model 6; see Table 32) unless otherwise stated.

I found that broken promises over the diary period was not associated with vocational trainees' satisfaction with their lives (H5). In addition there was no association between broken promises in the diary and how meaningful the trainees found their vocational training jobs to be (H6b). This was an interesting result as in the cross-sectional study (Study two, Chapter 7) the links between the PsyCoVo percentage scores and these variables were occluded by the strong effects of what actually happened at work — i.e. the actual delivered inducements. The lack of association in both of these variables in the daily scores could be due to the fact that they are both higher order satisfaction scores. A problematic PC relationship may simply not significantly impact such higher order constructs. Both satisfaction with one's life, and the meaning one assigns to a job are rather distant in abstraction level from the day-to-day happenings at work, which the diary captures (and even the items in the PsyCoVo cross-sectional scale). In other words, the meaning vocational trainees place on their work is perhaps more affected by issues concerned with people's personal identification with their jobs (for instance, how motive congruent the job is in terms of higher order strivings such as 'to help people' or 'to be creative' (c.f., Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001) rather than by the daily doings and interpersonal relationships at work which make up PC exchanges. It could be that the PCs daily ups-and-downs are not impactful enough to make an impression on the super-ordinal construct of meaning at work. In the same vein, satisfaction with life is also a general measure of satisfaction (c.f., Diener, Emmons, Larsen & Griffin, 1985). The daily hassles of PC breaks at work may not be significantly reflected in a trainees' overall life satisfaction as they may not be impactful enough to create unrest on that superordinate level. In fact, when we turn to the lower-order and more domain specific satisfaction measure of job satisfaction, we see a more significant result (H6a).

I found that vocational trainees' satisfaction with their training jobs, measured through the cross-sectional study (see Chapter 7), was moderately negatively associated with the amount of broken promises that they subsequently reported in their diaries $p= 0.06$, one-tailed (see Model 6, Table 32). Although not highly significant and with only 2% of the variance explained by this variable, this finding is still of interest. We must bear in mind that this result is indicative of the negative trends associated with a problematic PC, rather than being a direct consequence of the specific promises that were broken during the diary period. This negative relationship was predicted and is in line with previous findings that link breaches of psychological contracts to decreases in job satisfaction (Coyle-

Shapiro & Kessler, 2000; Conway, Guest & Trenberth, 2011; De Wang & Hsieh, 2014; Sutton & Griffin, 2004; Tekleab, Takeuchi & Taylor, 2005). In the cross-sectional study itself (see Chapter 7) I found a stronger link between the percentage of promises broken in the more general PscCoVo scale and job satisfaction, explaining up to 31% of the variance in job satisfaction(see Table 23). This present negative relationship between daily promise breaks and general job satisfaction goes some way in triangulating those findings.

When taking the relationship between a vocational trainer and their trainees under the loop, I found a highly significant negative link between the average number of promise breaks reported by a trainee over the diary period and the amount of trust they reported having in their trainer. This result confirms findings both in my cross-sectional study (see Chapter 7), where a small but highly significant negative link was discovered between promise breaks and trust, and from previous studies looking into erosion of trust in PC relationships (Bal et al., 2008; Guest, 2004; Robinson, 1996; Robinson, Kraatz & Rousseau, 1994). It follows that having a trainer who is prone to breaking promises brings the psychological contract into a poor state. Consequently, vocational trainees may have a difficult interpersonal relationship with them, including finding it hard to trust them. Promise breaks over the diary period explained over 10% of the variance in the amount of trust vocational trainees reported having in their trainers. For a young person starting out in the working world, it is rather unfortunate to have a PC partner whom they cannot trust. A supportive partner in a supervisory role who vocational trainees can trust is a feature of a job environment and training that I believe should be available for the adolescents. Navigating the work place is a demanding task for vocational education students (Uhly, 2012) even without the added complications of an unreliable PC partner. It is therefore recommended that practitioners be aware of the impact that broken PC promises can have on the interpersonal relationship between a trainee and their training partner and try to promise only what is realistic and attainable.

Within the cross-sectional study participants rated their most important personal work goal on the goal attributes of commitment, attainability and progress, (see Chapter 7) which have been identified in previous studies as important for well-being and mental health (Harris et al., 2003; Klug & Maier, 2014; Maier & Brunstein, 2001; Sheldon & Elliot, 2000). Trainer support for the personal work goal was also included in the scale as social support from peers, parents and significant others for personal work goals has also been found to impact well-being (Duffy & Lent, 2009; Jokisaari & Nurmi, 2005; Maier & Brunstein, 2001;). In the cross-sectional results I found that the higher the percentage of promise breaks the vocational trainees reported, the lower the personal work goal appraisals were. This was especially the case for work goal attainability and progress. For the present study, an aggregate score of the goal appraisal subscales was used to indicate what general state the adolescents' most important personal work goal was in, directly before the diary study began. Here, promise breaks in the diary were found to be moderately negatively associated with personal work goal appraisals (see

Table 32) .This means that there is some evidence to suggest that vocational trainees with a psychological contract that tends to be broken by their trainer or superior also tend to have personal work goals that are in a poorer state than those of their peers.

An explanation of this association between broken promises and poorer work goal appraisals, is that promise breaks create an unstable situational platform on which to choose and manage work goals. Young people actively choose their goals and then create plans of how to pursue them (Shulman & Nurmi, 2010). Such goals and plans are chosen and pursued within a context, which for adolescents Salmela-Aro (2010) refers to as a 'developmental landscape' (p.14). This landscape helps young people to situate and to centre their goals, in that it provides a framework of possibilities and constraints in which to act, plan and strive.

In the case of vocational trainees, the vocational training programme itself offers a structured space that is available for the duration of the training. The young peoples' PCs form a large part of this developmental landscape, encompassing promises in the workplace and, as a consequence of these promises, expected outcomes on which to form goals (see Chapter 6). If these promises are broken, the boundaries of the developmental landscape shift, making the plans for the work goals harder to manage as attainability becomes an issue, commitment suffers, progress becomes dampened, and the adolescent feels mislead rather than supported by their trainer. Shifting landscapes at work, in the form of PC promise breaks, may necessitate the adolescents to a reassess and restructure their personal work goals in order to accommodate the new situation and to revisit any goals that would now be unattainable, taking its toll on goal commitment, progress and also well-being (Brandtstädter & Rothermund, 2002; Heckhausen, 1999; Wrosch, et al., 2003; Uno, Mortimer, Kim & Vuolo, 2010).

The last of the level two variables included in this study was mainly included for triangulation and validity purposes. On between level of the model, I regressed the number of promise breaks over the diary period on the percentage of promises reported to have been broken from the PsyCoVo scale in the cross-sectional study (see chapter 7). This association was highly significant. Vocational trainees who reported broken promises in their diaries were also more likely to have a higher percentage of their PC promises broken in the PsyCoVo scale. This significant result indicates two points. Firstly, that some trainees were subject to promise breaks rather frequently, both in their diaries and the PsyCoVo scale, whilst others consistently had non-violated PCs. Secondly, the results reveal that the promises which I targeted in the PsyCoVo scale are highly linked to the actual number of promises that vocational trainees report as being broken on a day-to-day basis. This goes some way to adding validity to the PsyCoVo scale.

The results that emerged from this study are of importance because to date, very little is known about the way that broken promises impact upon workers on a day-to-day level. Diary studies in the past have concentrated solely on positive and negative affect after promise breaks (Conway & Brinner,

2002) and have not investigated behavioural or motivational consequences of breaks. In this study I have looked at mood, behavioural and motivational consequences of broken promises adding to the research base in this respect. Even more importantly, no empirical studies that I am aware of, have studied broken promises or personal work goals in the vocational training population, and certainly none have studied the constructs in relation to each other. There are currently over 1.3 million German youths within the dual vocational training system (BIBB, 2016) who face the difficult task of socialising into the world of work. It is clear that large transitions, such as moving from full-time education into a vocational programme are challenging (Heckhausen, 2000; Shulman & Nurmi, 2010), but up to now little is known about the day-to-day trials facing these young people on the macro level. Constructs such as the psychological contract and personal work goals can help to shed light onto which daily struggles these young people face and what can be done to ease their transition into fully fledged, confident and productive members the workforce.

To this end, it is my recommendation that staff who are training vocational trainees, are made more aware of the impact that the psychological contract can have on the mood, productivity and goal strivings of their young charges. The promising of items that cannot be realised should not be done flippantly, and certainly not become a normal HR practice in which to entice trainees into their firm in the first place, to increase their outputs whilst at work, or in an attempt to motivate them. Such promises may have the desired effect at the time they are made (see study two for a discussion), however at the breaking point the young people are left with negative experiences and a relationship with their trainer that lacks trust. Ultimately, along with the vocational trainee it is the firm that suffers the consequences. At the end of the day, promise breaks lead to a lack of effort and reduced performance by the young people which the firm is left to contend with, along with the adolescents not making progress towards their desired work goals. Progress made by the trainees would very often benefit the firm. Treating the psychological contract promissory agreements with care and attempting to honour them would therefore be of advantageous for the training firms, as well as benefitting the vocational trainee.

8.4.4 Limitations

Firstly, as mentioned earlier, having the trainees state the time at which the psychological contract promise break occurred, or having multiple time points throughout the day, would have been helpful in gaining a more accurate picture of the promise breaks. With such detailed data one can come closer to making causal assumptions about these negative daily events. As I did not collect this information, in this study it is not clear whether the daily reports of mood, effort, goal progress, goal salience, and performance were mainly after (if the break occurred in the morning) or before (if the breach occurred shortly before the end of work) a promise break occurred. A broken promise in the morning may affect a trainee's moods, strivings and performance more over the day, than a promise break just before

stopping work. On the other hand, a broken promise just before finishing work may lead to more extreme reactions, as the event would have happened shortly before the trainee filled in the diary, and the reactions would be fresh in their minds. I was able to carry out an analysis of the reactions to broken promises the day after a breach, to test how long reactions to broken promises last and to control somewhat for the lack of information regarding the timing of the breaks.

A further limitation was that in an attempt to keep the diary as short as possible I made one-item scales. In the case of performance at work this only tapped into the behavioural outcome of in-role behaviours, rather than touching on other aspects of OCBs such as conscientiousness. In future diary studies focusing on the psychological contract, a more elaborate performance measure containing elements of in-role behaviours and OCBs is recommended. Lastly, although the sample size for this study was very large compared to other published diary studies, I was not able to test whether the importance of a broken promise to the personal work goal had a mediating effect on the outcome variables. This is due to the fact that only days where promises were broken could be included in the study and the model was under-identified since there were not enough broken promise days to accommodate the large number of parameters to be tested. Collecting additional data with more broken promise days would be a next step for this research.

8.5 Conclusions

This study set out to investigate the affective, motivational and behavioural consequences of broken PC promises on a day-to-day basis. In testing broken psychological contract promises on a day-to-day timeframe, I was able to extend the research that was carried out in the first two studies in this project, by painting a more complete picture of the lives of vocational trainees and their experiences in the workplace. This study gave insight into the daily doings of the young trainees and their affective and behavioural reactions to negative workplace events. By collecting data from the vocational trainees every day for a two week period, I was able to differentiate the variation that stemmed from the daily situation and that which stemmed from the differences between participants themselves. This would not have been possible in a standard cross-sectional design.

I have found that daily broken PC promises do, indeed, impact upon vocational trainees. Associations were found between broken promises and daily mood on a daily and person level, and between broken promises and behavioural, motivational and specific satisfaction measures on the between level. Although there is still much of the variance to be explained, and further investigations are necessary, the results go some way in furthering our understanding of the daily work life of vocational trainees in Germany. Apart from the multi-level analysis that was carried out, a main finding of the study was the sheer number of broken promises the young people had to deal with. It is perhaps not surprising that there is such a high attrition rate within German vocational training programmes (BIBB, 2015) when approximately half the participants have to deal with violations in their working agreements on a

weekly basis. Recommendations were given in order to make vocational trainers more aware of the consequences of breaking promises, and to avoid breaking agreements made within the psychological contract if at all possible. This would be of benefit to both trainer and trainee in dual vocational training programmes.

9 Conclusions

9.1 Main Findings and Theoretical Implications

Making the transition from school to work is a developmental milestone for young people the world over. Currently, for 1.5 million youths in Germany this transition is being navigated through a three-year programme of vocational training, where the young person carries out formal on-the-job training supported by theory lessons at a vocational school. Adolescence is a time that has been pinpointed as being of particular importance for healthy identity development, and one motivational mechanism that is key during this time is the youths' personal goals system (Salmela-Aro, et al., 2010). Being at work also means being exposed to the work environment. One feature of this environment which the young workers have to manage is the psychological contract. This is an implicit contract based on promises between the employee and employer specifying what the employee can expect from the employer and what is owed in return.

In this series of three studies I investigated the roles of PCs and the personal work goals of vocational trainees and how these impact on the young peoples' well-being, flourishing and work attitudes. The first study, a qualitative interview analysis, focused on exploring the PCs of 10 vocational trainees concentrating on their lived experiences. The second study, a large scale cross-sectional study, had a wide focus emphasising personal work goals attributes, and PC promise breaks as predictors of well-being and work attitudes. The final study was a diary study, which followed a set of vocational trainees over a 2-week period, measuring vocational trainees' reactions to broken promises.

In this conclusion I outline the main results and theoretical implications of the results and go on to summarise the limitations of the studies. I end the dissertation with the practical implications of my work and recommendations for professionals in the vocational training field before making a closing statement. Throughout the conclusion I also pinpoint avenues for future research.

9.1.1 Interview Study

Firstly, in an interview analysis I took an in-depth look at the PCs of 10 vocational trainees. As no research to date has studied the PCs of vocational trainees, my aims for this study were exploratory. I wanted to explore three topics which I framed as research questions: firstly, the main structural features of the PCs, secondly, the state of the young workers' PC deals, and thirdly, background or personal factors of the trainees that impact their PCs. I aimed to highlight any features of their PCs that were unique or particularly pertinent to the vocational trainee population. I also had the aim to create a measure of psychological contracts that was tailored to vocational trainees and driven by the trainees' interview responses.

Important preliminary findings related to the main structural features of the PC deals. I found that the trainees' PC partners tended to be their vocational trainers, with certain demographic and personality characteristics being of importance to the trainees. For example more disparaging remarks were noted by trainees with older trainers showing a general lack of respect for more mature trainers. This has implications for PC theorists as the question, "Who is the other party to the PC?" is neglected in most research. Often phrases like 'the organisation' or 'employer' are used to describe the PC partner (e.g., Bal, et al., 2011; De Vos, et al., 2003; Tomprou, et al., 2015) which is imprecise. My research indicates that vocational trainees judge the PC partner on demographic features such as age, and personal features such as whether they are nice or not, which can influence the quality of the exchange relationship. This means that the trainees judge the PC partner on a personal level and react to them accordingly. When studies present the PC partner as an organisational entity these judgements are not taken into account. Future researchers could take note of the features of the partner in the contract and investigate their impact on the PC deals and avoid anthropomorphising the organisation. As for the promises in the contracts made by the PC partners, the trainees interviewed were able to discuss promissory terms of their contracts and showed a good understanding of what it means to have been promised terms. Most of the trainees interviewed spoke of explicit promises rather than implicit ones, which leads to less ambiguity in what is expected of them. I also found that some trainees had a rather incomplete PCs, being surprised when confronted with tasks, tests, and duties that were not discussed but were expected of them by their trainers. This was seen to lead to dissatisfaction on the part of the trainee.

I considered this finding relating to incomplete and unclear PCs important enough to test empirically in the next study, as recommendations for practice in many PC studies refer to having clearly defined PC terms (Bordia et al., 2008; Morrison & Robinson, 1997; O'Leary-Kelly et al., 2014; Reimann & Guzy, 2017) although no measure for PC clarity exists. Because of this, I created a 4-item scale to measure the clarity (explicitness and completeness) of the trainees' PCs which was tested as an antecedent to PC breaks in study 2. The results of that analysis showed that indeed, having a less clear and less complete PC lead to experiencing a higher percentage of PC promises made broken which, in turn, lead to lower job satisfaction, lower OCBs and lower vocational trainee trust in their trainer. A major strength of this dissertation is very clearly illustrated here, that a theme emerging from the interviews could be tested in the subsequent quantitative studies. This triangulation allowed me to attain a more rounded and substantiated picture of the variables tested in this study than would be possible using a single-method approach.

When exploring the second research question which focused on the state of the vocational trainees' PCs I discovered that they discussed psychological contract terms which were rather unique to their position as trainees. Concerning the state of the PCs, there was a large emphasis on how learning- and teaching- orientated the deal was, how fair the promises were, how much support they were promised,

and how the exchange relationship reflected their being full members of the workforce rather than second class workers due to their trainee status. The topics of fairness and support in the PC deals have been picked up on in previous research (Ford & Tetrick, 2012; Guest, 2004b; Herriot et al., 1997) often linking the discussion back to equity theory (Adams, 1965). What I found though is that the PC items that the trainees found fair or not were specific to their statuses as trainees. For instance, being given tasks which far exceed their training level, or only being given the dirty work to do which is not required of trained staff. The other themes to have emerged as state dimensions of PCs are thought to be particular to vocational trainees. Not being seen as a fully-fledged member of the workforce was mentioned by all 10 of the trainees and is likely not to be a concern for traditional workers at a later stage in their careers. The huge emphasis on learning also sets itself aside as a major feature of the trainees' PCs.

When looking at how this interview study impacts the existent literature, a main finding is that the PC deals that the trainees described could not be fitted into one of Rousseau's classic PC classification of transactional, relational, balanced or transitional state contracts. The emphasis on learning and teaching especially sets the trainees' PCs apart from Rousseau's well-cited and often used classification. If we look at other studies which mention training, further development or management courses as a PC item, we also witness confusion surrounding its sorting. Some classify training as a transactional item (Robinson & Rousseau, 1994; whilst others see it as a relational one (Rousseau, 1990). The learning and training orientated PCs described by the adolescents seem to be a category unto themselves and I believe it should be treated as such. A theoretical implications of this finding is that when studying the PC deals of vocational trainees, or other employees with an emphasis on learning, they should not be crowbarred into a PC category system that is aimed at adult, fully trained and traditionally contracted workers, as many nuances of their deals would be lost and an inaccurate picture would emerge. This is very much in line with Coyle-Shapiro and Kessler (2000) who, when analysing PC items, found training did not load on either a transitional or a relational factor.

Because the profiles of the vocational trainees' PCs did not fit into traditional measures of PCs, I used the interview results relating to the state of the PCs to create a measure of PCs specifically for vocational trainees. A preliminary version of the measure (the Psychological Contract Measure for Vocational Trainees - PsyCoVo) consisted of 29 items which emerged from the interview data. The measure has two response columns, one asking if a particular PC item was promised, hinted at or not promised, and the second asking to what extent the item actually happens at work. The measure's subscales at this stage were, support, fairness, valued member of the workforce, learning by doing, and learning centred. After testing the measure and carrying out two parallel factor analyses and reliability testing on the two response columns, I reduced the number of items down to 18 and reduced the number of subscales down to three: fairness, learning by doing and learning centred. I went on to

successfully use the PsyCoVo extensively in the cross-sectional study and for triangulation purposes it also featured in the diary study.

The most important result from the third and final research question from my interview study was that the trainees used personal reference points to discuss their exchange relationships and experiences at work. These reference points included the expectations and beliefs that they held about their training, their own ethical standpoints, comparisons with their peers and co-workers and most importantly, their own personal goals inside and outside of the work domain. Although not the focus of this study it emerged that the trainees' personal goals, both inside and outside of the working domain seemed to be their most salient personal reference point in assessing how well they were managing with the job, and how satisfied they were with their situations. This is in accordance with developmental psychologists who highlight the importance of personal goals during adolescence (Kaplan & Flum, 2010; Nurmi, 2001; Salmela-Aro, 2010; Schwartz et al., 2013).The trainees discussed their goals in relation to how facilitative or non-facilitative their work situations were for their goal progress. Of the ten trainees, eight of them gave examples of personal goals that were hindered by the working situation. More often than not, this was in the form of time restraints caused by the working hours or working overtime. This observation added credibility to my proposed theory which I tested in the second and third studies in this dissertation, that the PC is a dynamic environmental feature that can help or hinder the young trainees' progression towards their personal work goals and, as a consequence, impact on the trainees' well-being and job attitudes.

9.1.2 Cross-Sectional Study

The second study which I carried out was a cross-sectional investigation into the personal work goals and PCs of 475 vocational trainees learning a wide variety of jobs. Firstly I carried out a content analysis of the adolescents' most important work goals and found that the vast majority of these were focused on increasing their competencies in various areas of their training and personal development. Other goals included increasing their occupational knowledge, being taken on by the firm after completing training and being prepared for their future jobs or the final exam. This goal content is in line with what I expected and was similar in nature to a study by Hyvönen et al., (2009) who investigated the personal work goals of young managers and also found competency goals to be the most prevalent.

In the quantitative analysis I tested whether goal attainability was a moderator in the links between personal work goal commitment and personal work goal progress and whether goal progress was a mediator had an impact on the well-being and work attitude outcome criterion in this paper. I found that although there were strong links between goal progress and the outcomes, with higher goal progress being associated with higher well-being, and job attitudes and lower intent to leave the firm, there was no moderation effect of work goal attainability. This is contrary to what has been reported in

previous research (Brunstein et al., 1999). There were, however separate simple mediation paths of work goal commitment and attainability through work goal progress to the outcome variables. I did find that for all of the outcome variables but OCBs, work goal attainability was the strongest predictor, whilst for OCBs goal commitment was the stronger predictor (see Figure 31 for a schematic depiction of the associations found).

This has theoretical implications for research based on the telenomic model of well-being (Brunstein, 1993; Brunstein et al., 1999; Brunstein & Maier, 2002; Brunstein, Maier & Djargel, 2007), as it seems that that goal attainability does not moderate the link from goal commitment to goal progress for all groups of workers. Vocational trainees are probably in a somewhat more controlled work setting than traditional workers would be, with the firms also having a vested interest in producing a well-rounded and competent worker. After all, vocational trainees are costly for a firm if they cannot work productively. This rather controlled environment with its short-term three-year perspective may mean that being highly committed to the goals is rather irrelevant as the system itself leads the young people in their quests for competence, personal development, and ultimately passing the final exam. This lack of moderation may also be because the young people reported their self-set personal work goals, rather than rating generic goals chosen by a researcher. This means that each trainee was likely to be rather highly committed to their most important work goal and there may not have been sufficient variance in this variable to discern any moderation effects stemming from it (Klein et al., 1999).

A further finding pertaining to the vocational trainees' personal work goals was that trainers' support for the trainees' goals was important for all of the outcome variables. Although this was tested as a moderator in the path between work goal commitment and the outcome criterion, it was found to be a direct predictor instead. Job satisfaction in particular, and trust in trainer were positively affected by having increased supportive attention from the trainer for the young people's personal work goals. This adds to the literature on support for personal goals within close relationships, indicating that having a supportive trainer or supervisor can make a great difference to a young person's striving and well-being, in the same way that a supportive spouse can aid goal striving in supportive relationships (Biringer et al., 2016; Diener & Fujita, 1995, Orehek & Forest, 2016). This finding was interpreted as the trainer themselves being a social feature of the work environment, able to facilitate or hinder goal progress simply by their supportive or non-supportive behaviours.

One major finding that has implications for PC theorists is that I found that the percentage of promises broken was only a better predictor than promises made and the actual practice at the firms for the outcomes of job satisfaction, OBCs and trust in trainer. The other three variables of SWL, meaning at work and intention to leave were better predicted through the simple variable of what actually happened in the workplace. This indicated that for some outcome variables the effect of making a promise to the trainees was inconsequential. This was put down to the abstraction level of the

variables and their non-work domain specificity. As the actual practice in the firms was found to be a stronger predictor than broken promises in some cases this finding calls into question research into SWL and intention to leave in relation to PCs and broken promises that does not control for actual practices in their analyses. It is likely that in these cases the actual inducements that are delivered is the part of the PC deal that has the most predictive power over and above whether a promise was made or not. That promises are not as important in the PC deal as previously thought was touched upon by Montes and Zweig (2009), and my research adds to their observation that in many situations what employees get from their employers is much more important than what they are promised.

In a similar vein, I found that having a promise of employment at the end of the training was not a significant predictor of satisfaction and work attitude for the trainees. In most cases it is the wish to be taken on which increases flourishing in the workplace. Again, this highlights the fact that promises may not hold as much predictive power in the employment relationship of vocational trainees as it does for traditional workers. Only in the case of OCBs was there a significant relationship stemming from a promise of employment, albeit a negative relationship, which is the opposite direction to what was predicted. This was put down to the fact that after a promise of employment has been made, the vocational trainee feels it is safe to reduce their effort at work. Interestingly then, some promises seem to lead to a reduction, rather than a ramping up of effort from the employee. This is a novel finding that I have not encountered in other research and is worthy of further investigation.

A final important finding from the cross-sectional study is that my theorised link between broken PC promises and personal work goals was substantiated. The higher the percentage of promises made that were broken the lower the OCBs, job satisfaction and trust in trainer, which was mediated through the personal work goals either through work goal attainability (OCBs) or work goal progress (job satisfaction and trust in trainer). This finding indicates that vocational trainees' PC breaks are what Duffy & Lent, 2009) would describe as being a 'goal relevant environmental obstacle' and Little (2007) would classify as a 'dynamic contextual feature' that impact on the young peoples' personal work goals. Higher numbers of broken promises negatively impact the young peoples' goal progress and how attainable they believe their goals to be. This means that when a trainer breaks a PC promise they are not simply withholding the promised inducement, the consequences reach much further, with the individual's motivation suffering and their satisfaction, work behaviours and trust in their trainers being negatively affected. When discussing this finding in terms of a classic goal theory, Kuhl's (1987, 1994) research on action control theory has found that individuals with an action control rather than a state control tend to react dynamically and flexibly in changing situations, and complete their plans for action. As the PC landscape is dynamic it may be that individuals with an action control orientation rather than a state control orientation deal with broken promises better. Bearing this in mind, an interesting next study would be to investigate how much an individual's control orientation impacts their goal progress when broken promises make the work situation unstable.

9.1.3   Daily Diary Study

A volunteer subset of the vocational trainees who participated in the cross-sectional study also participated in the last study in my dissertation which was a daily diary study. This study of 119 vocational trainees followed the participants for two weeks, with a short questionnaire to fill in at the end of each working day. With this study I attempt to capture the dynamic nature of the daily work environment of the vocational trainers and to investigate the trainees' own broken promise experiences. I was interested in how daily broken promises impacted the trainees' daily mood, work performance and work effort and also whether it affected the trainees' ability to progress towards their most important work goal and how salient the goal was on that day.

A number of interesting findings emerge from the study. Firstly as in the second study there were a large number of promises broken reported, with just over half of the trainees experiencing a promise break in the two-week period. The number of promise breaks differed significantly between participants with some experiencing more breaks than others. I content analysed the promises that were broken and found that although some matched the PC categories and codes which I had extracted from the interviews in study 1, I did need to add one category to the code manual. This was the largest category in which promises were broken, which I named daily framework. The category consisted of promises being broken relating to overtime, days off and break times. The second largest category of broken promises was that of learning and teaching, indicating that alongside scheduling issues broken promises relating to the amount and the way the young people were learning, and the quality of teaching were common. A theoretical implication of this content analysis is in line with the findings from study 1, which showed that the promise breaks faced by vocational trainees cannot be easily fitted into one of Rousseau's (2000) PC types. Learning and teaching promise payed a large role in these trainees lives, both in the diary study and in the previous studies in this dissertation, which I believe represents a specific type of PC deal, specific to vocational trainees whose main task is to learn the job at hand.

The results of the quantitative inquiry showed that the situation accounted for the majority of the variance in the study variables. For instance 46 percent of goal progress was attributed to the vocational trainees' person, and 53 percent attributed to the daily situation. This suggests that the daily situation is of high importance to the trainees in terms of their motivation. The pattern was similar for the other variables with only between 26 and 49 percent of the variance being attributed to the person rather than the situation in mood, performance and effort. The large role that the working environment has on these outcome variables is an important finding. Ensuring a supportive and nurturing daily situation which facilitates the trainees flourishing may go some way in making the daily working lives of young trainees easier to manage.

I found that broken PC promises in a day impacted negatively upon the mood of the vocational trainees on both the within and between levels. Daily promise breaks also impacted negatively upon the amount of effort and the performance level of the vocational trainees on the between level. That means that over the diary period trainees with more broken promises reported less average effort and performance over the two weeks. This is also the case with goal progress, with more broken promises in the two week period leading to less goal progress over that time. There was not a significant within person effect for goal progress, work effort and work performance indicting that daily fluctuations in these variables due to a broken promise were not large enough to reach statistical significance. I also tested promise breaks as a predictor of goal salience but there was no association on the within or between levels.

I tested the participants' responses for the day after promise breaks occurred and found that although there was no change in effort on the day of a broken promise, the trainees reported putting in less effort at work the day afterwards. This has interesting theoretical implications as it shows that, as Shaw and Barksdale, (1998) and Jensen et al., (2010) suggest, vocational trainees will adjust their contributions after a broken PC deal. The trainees in my study tried less hard at work the day after a promise was broken, although by that stage the differences in activation score (PA and NA) had returned to a non-significant level. By trying less hard, it is likely that the vocational trainees attempt to redress the balance in the exchange relationship the day after the broken promise incident occurred.

An interesting additional feature of this diary study is that I was able to test the participants' general level two satisfaction and work attitude criterion variables, which I collected in study two, against their diary entries. The results do not indicate causality in any way because the cross-sectional survey was carried out before the diary study. Nevertheless, the results do reveal that a generally less healthy exchange relationship, characterised by more broken promises over the two week diary period, was associated with less trust in trainer, job satisfaction, and less healthy personal goal attribute scores (attainability, commitment, progress and goal support combined). In line with the results of study 2 I found that there was no association between broken promises over the diary period and SWL or meaning at work. As discussed above, this is presumed to be because the abstraction levels of these two criterion variables are too far removed from the concrete phenomenon of broken promises. Finally, I did find a significant relationship between daily broken promises and the percentage of broken promises from the PsyCoVo scale. This is encouraging in terms of the PsyCoVo scale as it goes some way in triangulating the findings stemming from that measure, indicating reliability and construct validity. Daily broken promises over the diary were strongly associated with the percentage of promises broken according to the PsyCoVo.

The general trends in this diary study supported the PC theory that breaches in PC promises have negative implications for employees in terms of mood, job performance, and effort at work as well as

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being negatively linked to trust in the trainer and job satisfaction (Bal et al., 2008; Conway et al., 2011; De Wang & Hsieh, 2014; Zhau, et al., 2007). In addition the results added backing to my theory that broken promises create a barrier for affective goal progress, as broken promises were seen to be negatively associated with goal progress over the two-week diary period. This also triangulates with the results of study 2 which also show a negative association between broken promises and goal attainability and progress.

9.2 Limitations of the Studies

With this dissertation I took a mixed method approach which was one of the strengths of the study. I was able to triangulate my research findings between the three studies which added depth and a more complete account of the experiences of vocational trainees in the dual-training system. Nevertheless, each study design brought with it potential limitations for the interpretations of the results which I discussed and I will recap here. Firstly, the interview study had 10 participants, and although they were from varying jobs I was not able to cover all of the job areas available to trainees in Germany. This means that although saturation seemed to occur within this study with no new codes being added in the last interviews, there may have been themes specific to a certain industry, (e.g., handcrafts), which I did not uncover. The findings from this first study should therefore not be generalised to trainees in other industries. In addition, I carried out the interviews in German and I am not a native speaker. Although my level of the language is good, there may have been nuances in the scripts which I was not able to identify or interpret. I attempted to reduce this risk, by carrying out inter-rater reliability on the coded data and discussing any phrases which I found to be ambiguous with German research assistants.

The second study in my dissertation was a cross-sectional study, and as such no causality can be inferred from the results. I attempted to overcome this limitation by triangulating the data with a diary-study which could capture the dynamic aspects of PCs and personal work goals. A further limitation of this study was that although being valued as a full member of the workforce and receiving support were found to be important for the trainers in the interview study, I had to remove these questions from the PsyCoVo measure leaving the measure more reliable but somewhat incomplete. Future research could concentrate on generating more reliable items for these two sub-scales for inclusion in the measure. A third limitation is that I did not control for the content of the goals or broken promises although past research has shown that both goal and PC content can impact well-being (Dweck, 2007; Hui et al., 2004; Hyvönen et al., 2010; Locke & Latham, 2006; Raja, et al., 2004). This is an area for future investigation, as the PC broken promise may interact, thus affecting goal progress and well-being. One other interesting line of further enquiry emerging from the cross-sectional study would be to follow a set of trainees over the transitional period at the end of their vocational training. Investigating whether promises relating to future employment and being taken on at the end of the

training would acquire a more important role for the adolescents nearer the end of the training could yield fascinating results.

For the daily diary study, asking the vocational trainees to record the time at which any promise breaks had occurred would have made the interpretation of the results easier and the links clearer. I would recommend any researcher carrying out similar research to do this. To control for this some extent, I carried out an analysis into the vocational trainees' reactions a day after a break had occurred. In this study I had planned on testing whether the importance of a broken promise for the vocational trainees' most important goal moderated the effect of the broken promise on goal salience and goal progress on the within and between levels. Unfortunately this could not be tested as the model was under-identified because there were not enough cases of broken promises in the results to carry out a reliable analysis. Theoretically this question is still important and by collecting more data to increase the case numbers this could, and should still be tested.

A theoretical limitation to the studies, which also applies to the cross-sectional study, is that the PC is a two-way construct. It is the perceived agreements made between two parties of what is promised and what is delivered in return. I did not include the vocational trainer's understanding of the deal in the analysis. It is therefore not clear to what extent the vocational trainees delivered on their PC terms too. In some cases trainees not fulfilling their end of the deal may have triggered a broken promise to occur in the first place, with the trainer redressing the balance themselves. Future lines of research should consider including a measure of the vocational trainers' understanding and responses to the PC deals to gain a more comprehensive understanding of the PC deals between vocational trainees and their trainers.

9.3 Practical Implications

An aim of any psychological research should be to identify the practical implications of the results and to offer specific recommendations for improving the lives of the target group. From the results of the three studies in my dissertation I was able to identify a number of implications for practitioners in the field of vocational training. Many of the recommendations here start with the trainer-trainee dyads openly discussing the trainees' personal goals and forging open lines of communication. In order to form a supportive bond and to help the trainee move towards accomplishing their goal, it is imperative for the goals to be at least discussed in an open way, and, if possible, steps formed together to aid the trainee's progress. Firstly, helping vocational trainees improve their commitment levels towards their most important goals may be a way to aid their goal progress.

An intervention to increase commitment levels could be as simple as the trainee informing their trainer which personal work goal they are striving towards, and receiving regular feedback from the trainer relating to their progress towards the goal. This recommendation is supported by research from goal

setting theory (Locke & Latham, 2006), and cognitive theories such as social cognitive theory (Bandura, & Locke, 2003) and control theory (Carver & Scheier, 1998). These state that progress monitoring should promote goal attainment because it serves to identify discrepancies between the current state and the desired state, and thus enables people to recognize when additional effort, self-control and commitment are needed. A recent meta-analysis of such theories found that feedback and monitoring increases goal progress and performance by improving the effectiveness of detecting discrepancies (Harkin et al., 2016). They found that feedback is especially effective if the goal is physically written down, is reported to someone else, and is monitored regularly. Thus trainers should be encouraged to meet regularly with their charges to give feedback on their goal progress, and to document the results of these feedback sessions in written form.

Secondly, a further antecedent to goal progress is the belief that the work goal is attainable in the given situation. Interventions in this regard are twofold. Firstly, effort should be invested into creating an environment that is conducive to the young peoples' goal strivings. Increasing the resources which the young person needs to attain their goal (e.g., time to practice skills, equipment, social support, and control) could go some way in raising the attainability of the trainees' personal work goals. Alternatively, restructuring personal goals in the face inopportune situations, and adjusting goals to make them more attainable, or even giving up on the goal altogether, is an adaptive strategy in terms of well-being (Gollwizer & Moskowitz, 1996; Heckhausen et al., 2010; Nurmi, 2008; Salmela-Aro, 2010; Salmela-Aro & Suikkari, 2008; Stumpp, 2006). Therefore, helping the trainee to adjust their work goals in order to better fit the constraints of the training environment available to them is an option which is based on a large body of research. Again, the vocational trainer should discuss the intended goal with the trainee, and could then assess the feasibility of it, given the resources available in the workplace. If progress towards the goal would be impossible with the resources available and the current situation, the trainer could help the trainee to restructure the goal into a more attainable one in accordance with Barlow et al. (2016), Heckhausen et al. (2010), Salmela-Aro & Suikkari (2008), and Salmela-Aro (2010).

I found that having a trainer who supports the trainees personal work goals was advantageous for the trainees especially in terms of how much the trainee trusted their trainer. A recent theoretical paper has argued that in a supportive partnership, being able to both receive and give support for goals or as the authors put it having mutual perceived instrumentality could increase productiveness for both partner's goals as well as building foundations for a stronger relationship (Orehek & Forest, 2016). Taking this research into account a recommendation would be for the trainer to also share their own personal work goals with the trainer and for them to mutually support each other in their goal strivings. This simple step could also help to educate the trainee by example; by making it clear to them that continued development through personal work goals throughout one's career is prudent and giving them insights into the next possible steps in their careers.

In line with findings from many PC studies (e.g., Bal, 2017; Conway et al., 2002a; Jensen, et al., 2010; Lapointe et al., 2013; Rousseau, 2000; Zagenczyk et al., 2014) a primary recommendation for practitioners in the field of vocational training is to attempt to reduce the number of promise breaks that the trainee perceives. This is especially important in the case of vocational trainees since trainees reported more promise breaks than traditional workers do. Trainers breaking their PC promises to their charges were found to be detrimental for the trainees' well-being, work attitudes, mood, work performance and effort. The shifting sands of an unstable PC also lead to an environment that is not facilitative to the goal striving which impacted negatively on the trainees motivational system. One practical approach to reduce the incidences of PC breaches would be to educate vocational trainers in the impact that breaking PC deals have on trainees. Making communication between the parties of a psychological contract has been recommended in many studies (Reimann & Guzy, 2017; Morrison & Robinson, 1997; Bordia et al., 2008; O'Leary-Kelly et al., 2014) and I would also recommend this course of action. Concrete praxis tips are rarely given on how to achieve this transparency in practice. I recommend firstly instructing vocational trainers in how to converse about PC deals in a constructive manner with their trainees. This could benefit the trainees and the trainee-trainer relationship. Focus should be given to ensuring the trainers do not engage in flippant promise making as a management tool, reducing ambiguity in promises so trainees do not perceive a promise when none is actually being made, and by covering the promises comprehensively so as not to have trainees left with incomplete PC deals.

In cases where a breach of the PC contract in unavoidable, to reduce a possible withdrawal of OCBs, a reduction in job satisfaction and mistrust in the trainer, I recommend that trainers attempt to maintain an environment that is facilitative to the trainee's goal striving and which actively triggers goal strivings in spite of the broken promise. This recommendation is in accordance to Duffy and Lent's (2009) Social-Cognitive Career Theory of Work Satisfaction and Little's (2007) Social Ecological Model of Personal Projects. Both of these highlight the role of dynamic contextual features and environmental supports that facilitate goal striving, in keeping goal progress active, which affects well-being and flourishing. Compensating for the broken promise may well be possible by ramping up efforts in other areas depending on the content of the break. This could be achieved through offering alternative resources to the trainees and increasing social support for the goal, which I found this to be important for well-being and trust in trainer in Study Two, commensurate with findings from Orehek & Forest, (2016), Brunstein et al., (1996) and, Pomaki & Maes, (2006). In addition, trainers could attempt to increase the amount of control latitude the trainee has over their environment so they can adapt it to fit their goal strivings better. Changing the environment to fit the goal is described in the life-span theory of control (Heckhausen et al., 2010; Heckhausen & Schultz, 1995) as an adaptive primary control strategy and is one of Kuhl's (1994) well regarded six action control strategies. In line with developmental theories (Heckhausen et al., 2010; Salmela-Aro, 2010 and Salmela-Aro & Suikkari, 2008) if all of these measures fail and the environment is not at all facilitative to the goal, as

a last resort I would recommend guiding the trainee to adapt or restructure their goals to fit the new situation which over time, may help to restore their satisfaction, trust and OCBs.

9.4   Final Statement

I feel it is imperative that we try to improve the working situations of vocational trainees. They are our next generation of workers. Their ability to navigate the workplace, learn their trade effectively, complete their training to a high degree of excellence, and to interact with their superiors in an effective way is what will equip them to be effective and motivated workers in the future. Indeed, these are the very personal work goals which the trainees report striving towards. Through creating a facilitative working environment for theses strivings to blossom, which includes honouring promises that are made to them in the workplace, we would allow for more effective workers in the long run. This would undoubtedly be beneficial to the individual trainees, the firms which they work for and the society in which they will ultimately work as trained professionals.

10 References

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Appendix

Appendix 1. Interview Schedule

1.1 Introduction to be read

"Some people find that starting vocational training can be pretty difficult at times. One of the things they talk about is the way that they feel about their bosses, and what is expected of them at work, and how it was difficult when they started. Because you are doing vocational training I would like to ask you about that, using some of your experiences as examples. Do you have any questions before we start?"

1.2 Questions and Prompts

1) **Can you tell me a bit about where you work and your job?**

   Prompts: Your job, how big firm , your team, your responsibilities.

2) **Was starting work how you expected it to be?**

   Prompts: What was different? What was what you thought it would be like?

   Was it hard to go to work? What about now?

3) **What do you expect from your work?**

   Prompts: what do you think the people at work should do for you?

   Pay, support, training.

   Why do you think this?

   Do you think they know that you expect these things? Why?

4) **What is expected of you at work?**

   Prompts: hard work, punctual, polite to boss, work late, etc.

   How do you know that you should do these things? (prompt, others at work, boss, direct instruction etc)

   Do you do all of these things?

5) **Did anyone at work make you any promises to you about your work at the beginning?**

Prompts: training, days off, help, future.

Did they keep these promises, or do you think they broke them?

What about later on, has anyone promised you anything recently?

6) Has anyone said anything to you about your future here?

Prompts: Do you want to work here in the future? Why, why not?

Do they know that?

7) Do you think the people here care about if you are happy or not?

Pompts: Why?

Feel cared for? Comfortable?

8) Do you get enough help and support at work?

Prompts: If you had a question/problem could you ask someone?

9) Did you have to stop doing something else when you started this training?

Prompts: hobbies, seeing friends, seeing family, more free time?

What was it like to make that change?

10) Was this your first choice of a job before you began to work here?

Yes: why did you want to work here?

No: What did you want to do instead? Why? Why didn't it work out?

How did you feel about learning this job instead?

11) Do you think this is a good place to work?

Why? Why not?

Do you think you are getting a fair deal compared to other people working there?

Prompts: people? Friendly? good fun? interesting work? nice to have a job? Nice to get paid.

Appendix 2. Code Manual - Study 1

This coding Manual was used by me and all research assistants to coding the interviews and to document the codes and their frequencies and number of contributors. It contains a description of each category, and information relating to each code. The codes and their definitions are presented in English as used in the dissertation text, whilst the example quotations from the interviews and the keywords are given in the original German. Any specific coding rules are presented under that code's definition.

Abbreviations used in this document: Freq' = Frequency; Part' =Number of participants contributing to code; PC= psychological contract; VT=vocational trainee; VTg=Vocational training; WP= working partner (who the VT sees as being the other partner in the PC i.e. boss, line manager or trainer).

A. Background Factors

A1. Alternatives to VTg

The VT discusses the other options that were available to them before starting the VTg and the importance of the VTg to the VT

Code	Definition	Example	Freq'	Part'
No Alternative to this VTg	The VT indicates that there was no alternative for them other than to start this VTg.	„ich wurde halt nur bei der Rentenversicherung genommen oder mir wurde angeboten, ne Ausbildung zu machen."	5	3
Alternatives to the VTg	The VT indicates that there were other options open to them when starting the VTg	„oder ich hätte theoretisch auch weiterhin zur Schule gehen können."	24	8
VTg as first choice	The VT indicates that VTg in general was their first choice of progression.	„ich habe mich ja nebenbei in meinem letzten Schuljahr beworben für eine Ausbildung und hab mir gesagt, wenn ich keinen Ausbildungsplatz bekomme, dann gehe ich halt weiter zur Schule und versuch mein Abi zu machen."	7	3
This VTg as first choice	The VT indicates that *this* particular VT was his first choice	„das fand ich jetzt so am umfangreichsten von allem, weil da spezialisiert man sich ja nur auf die Augen oder nur auf Krebspatienten."	6	4

VTg as secondary choice	The VT indicates that VTg in general was not their first choice of progression and that they would have preferred to do something else instead: eg Abi, school, full time job, study. *RULE: only code as secondary if it is obvious that the first choice was not realised:*	„ich wollt ja eigentlich Abitur machen"	13	7
This VTg as second choice	The VT indicates that *this* VTg was not their first choice of progression and that they would have preferred to do something else instead, e.g. another VTg job. *RULE: only code as secondary if it is obvious that the first choice was not realised:*	„such ich mir einen neuen Betrieb in derselben Fachrichtung und versuch dann im 2. Lehrjahr wieder anzufangen"	5	3
Job Choice help family/friends	The VT indicates that they got help choosing the VTg or Job direction by talking to their family and friends.	„dann, das hat mein Vater dann auch gesagt, ja,"	6	4

Key Words: keine Wahl; keine Alternative; Alternative; Auswahl; andere Bewerbungen; erste Wahl; erster Wunsch; nur diese Ausbildung; nicht erste Wahl; Schule; ABI; Studieren; diese Ausbildung als zweite Wahl; Hilfe von Mutter/ Vater / Freund/-e/-in/-innen; Hilfe mit Entscheidungen; Zukunft zusammen diskutieren.

A2. Applications

This category pertains to how the VT applied for the VT position.

Code	Definition	Example	Freq'	Part'
Traditional application	The VT states that they sent a traditional application through the traditional process	„Ja, ich hab, ich hab ja nur 8 Bewerbungen —glaub ich— geschrieben"	21	8
Personal contacts	The VT indicates that the VT position was applied for through personal contacts.	„Glück! Und dieses Vitamin B."	8	2

Key Words: Bewerbung; Bewerbungsgespräch; Vitamin B; über Freunde/Familie

A3. Wider Framework

This category includes talk of the wider framework that the Vtg finds itself in. This includes the economic background as well as the legal framework of the training in itself.

Code	Definition	Example	Freq'	Part'
Economic climate	The Vt talks about the economic climate.	„wegen der wirtschaftlichen Lage„	6	4
Framework of the VTg	The Vt discusses the formal framework of the VTg- e.g. how many hours they have to work and what are the minimum requirements to complete the VTg.	„Das ist im Ausbildungsrahmen halt, steht das mit drin."	23	7

Key Words: Ökonomie, Finanzielle Situation, Krise, Politisch, Ausbildungsrahmen, Stundenplan, Stunden, Rahmen.

A4. Previous experience

The VT talks of their previous experience in the world of work.

Code	Definition	Example	Freq'	Part'
Previous work experience	The Vt states that they have had previous work experience, could be work practice.	„Praktikum gemacht und"	22	7
Probezeit- trial period	The Vt has completed a trial period before working at the firm they are completing their Vtg in now	„und, ähm, ja, durfte dann gleich Probearbeiten irgendwie ne' Woche später"	15	6
Previous completed VTg	The VT indicates that this VTg is not their first VTg and that they started and completed another VTg before the current one.	-	0	0
Previous incomplete VTg	The VT indicates that they started another VTg before this one but did not finish it. e.g due to being fired or breaking off the VTg.	„ich hatte schon mal ne Ausbildung angefangen"	8	2

Key Words: vorherige Ausbildung beendet/abgeschlossen; vorherige Ausbildung abgebrochen/gekündigt/verlassen/rausgeworfen; Probezeit, vorherige Arbeit, vorher gearbeitet, in meiner letzten Ausbildung, Erwachsener werden, aufwachsen,

B. PC Partners

B1. PC holder: Working partner

This category relates to *who* the VT see as their PC partner/s and, what their opinion is of this partner

Code	Definition	Example	Freq'	Part'
PC partner	The VT indicates who their PC partner/s is/are	„Nee, ich hab eine andere Arzthelferin, die für mich zuständig ist"	10	7
Not PC partner	The VT indicates who are not PC partner/s	„und es gibt dann auch noch die Ausbildungsleitung. Diese Leitung sieht man eigentlich nicht so oft, mit denen hat man auch nicht so viel zu tun"	6	3
Nice / satisfied with PC partner(s)	The VT indicates that they think their PC partner is nice, friendly etc. or that they feel satisfied with them	„ja also mit denen, die sind eigentlich sehr nett."	35	9
Not nice / not satisfied with PC partner	The VT indicates that they do not think their PC partner is nice, friendly etc. or that they are not satisfied with them	„Mein damaliger Chef und ich waren mehr oder weniger auch auf Kriegsfuß"	19	7
Respect for WP	The VT indicates that they respect their WP	"der ist da gut dabei, wird demnächst auch Abteilungsleiter, wenn mein Altmeister in Rente geht."	4	3
No respect for WP	The VT indicates that they do not respect their WP	„'n bisschen also, aufgrund das der Chef sowieso so blöd war, war das eigentlich nicht so schade." „Ja, der ist, ja der, wir machen auch so Späße mit ihm, aber er ist mehr so, ja, wie soll ich sagen, ja, man kann ihn nicht mehr so ernst nehmen, sag ich jetzt mal."	6	3
Strict	The WP is described as being strict	" ...ja, also sie hat gleich von Anfang an gesagt: "Also das geht bei mir nicht, krank melden!", dies und das,	3	2
Not strict	The WP is described as not being strict	"ich dachte, der ist so streng und hart, aber ist er ja gar nicht"	3	3
Encouraging/	The WP is described as being encouraging to the VT	„und so halt, ne, um einen wieder aufzuwecken und halt die Motivation zu wecken, sag ich mal."	7	4

Code	Definition	Example	Freq'	Part'
Not encouraging	The WP is described as not being encouraging	" war allein, ne Frage zu stellen, schon mal mit nem andern Aufwand verbunden."	1	1
Young	The WP is said to be young in the VT's opinion	„Also noch ziemlich jung"	5	5
Old	The WP is said to be old in the VT's opinion	„Und mein alter Chef, der war einfach nur, der war alt"	6	3

Key Words: Ansprechpartner; Ausbilder; Chef; nicht mit ihm zu tun; der Chef ist nett; zufrieden sein mit dem Chef; der Chef ist freundlich; der Chef ist nicht nett; den Chef mag ich nicht; Unzufrieden mit dem Chef; respektieren; Vorbild; nicht respektieren; streng; locker; easy; fordernd; jung; alt.

B2. PC Holder VTg

This category relates to the VT him/herself. What attitude does he/she have regarding the VTg. What characteristics do they show has an influence on the PC?

Code	Definition	Example	Freq'	Part'
Can't be bothered	The Vt shows that they can't be bothered to carry out a task or aspect of the job or to work hard. They lack motivation for some reason.	„Ab und zu halt sag ich auch mal, "hab ich jetzt keine Lust","	5	3
Try their best/dedicated	This code indicates that the VT tries their best to do well in the VTg, to be "good" at work, to make a good impression and to be a good team member and colleagues. They want to fulfil all the responsibilities that are given to them. They want to learn a lot, and learn it well. They have an emphasis on wanting to learn more and more and to better themselves.	„und trotzdem habe ich drum gebeten, dass ich diese Lehrgänge mitmachen kann" „Ich geb mein Bestes."	60	10
Give to firm / expected of VT	The VT indicates what is expected of them at the firm. They speak about what they give the firm.	"Ja, dass ich halt gründlich arbeite, äh"	23	9

Key Words: sein Bestes geben; engagiert; alles geben; versuchen zu verbessern; habe kein Bock; will nicht; keine Lust. Geben dem Firmen; tue was ich zu tun habe.

C. Framework of the Psychological Contract

C1. Promises

Under the category *Promises* falls interview data relating to implicit or explicit promises made, kept or broken by the VT's WP. It also includes any specific mention of a lack of promises made. These promises could include, e.g., a promise of extra pay, time off work, additional training courses etc.

Code	Definition	Example	Freq'	Part'
Promises made	Indication that a promise was made to the VT by the WP	„Aber mir wurde auch gleich gesagt, wenn alles klappt, dann verkürzt sich meine Ausbildung um'n halbes Jahr." „Der Chef hat gesagt, für jede Person, die wir einschreiben, kriegen wir 1 Euro."	18	7
Promises kept	A promise has been kept that has been promised to the VT by the WP.	„diese Abmachung hat sie erfüllt..."	16	7
Promises broken	A promise has not been kept that was made to the VT by the WP.	„obwohl mir vorher was anderes versprochen wurde."	4	2
Lack of promises	This indicates a lack of promises made to the VT by the WP.	„Mhhh, mir wurde eigentlich nichts versprochen,"	6	4

Key Words: etwas versprechen; Versprechen; mir wurde gesagt…; Versprechen erhalten; etwas zusagen; garantieren; etwas zusichern; jmd. sein Wort geben; Versprechen brechen; Zusagen nicht erhalten/einhalten; angelogen; sein Wort nicht halten; keine Versprechungen gemacht/vorhanden; keine Zusagen.

C2. Clarity

This category encompasses factors relating to how clearly the PC was/is imparted to the VTs.

Code	Definition	Example	Freq'	Part'
explicit	The VT indicates that the PC is clearly imparted by the WP e.g. their responsibilities and how they are to behave are stated directly to the VT.	„Ja, das wurde so gesagt".	79	10

Code	Definition	Example	Freq'	Part'
implicit	The VT states the PC is implicitly imparted by the WP, e.g., through modelling of behaviours or other indirect methods.	„Ja, es wurde noch nicht so drüber geredet, aber es wird davon ausgegangen,"	18	10
incomplete	The VT implies that important aspects of the PC were left unsaid and then came as a surprise when they were expected of him/her	„Da wurde, nee, da wurde halt nur von dieser Zwischenprüfung geredet, die nach der Hälfte der Ausbildung geschrieben wird,"	18	6

Key Words: Klarmachen; deutlichen machen; explizit/ausdrücklich gesagt; nicht ausdrücklich gesagt aber jeder weiß es; Ich weiß es nur; habe gesehen; es ist selbstverständlich; nicht gewusst; überrascht; nicht vorbereitet; etwas kommt überraschend; wurde nicht im Vorstellungsgespräch gesagt; nicht erahnen können.

C3. Temporal factors

This category includes features relating to the expected duration and of the work with the WP and consequently of the PC

Code	Definition	Example	Freq'	Part'
Fixed term	The VT expects the PC and work to continue only to the end of the VTg time.	„Nein, das nicht. So sah, ähm.....ich bin da nie von ner Übernahme ausgegangen"	1	1
Employed/taken on-promise	The VT expects that work and PC to continue past the VTg time. e.g. they indicate that they have been told/ expect they will be taken on after the VTg.	„Ja, das wurde uns halt auch gesagt, dass wenn wir unsere Ausbildung mindesten mit ner' 3 abschließen, dann werden wir auch für mindestens 1 Jahr übernommen" „also diese Zusage habe ich jetzt schon gekriegt."	21	5
Wish- taken on	The VT indicates that they wish to be taken on at the end of the VTg	„weil ich übernommen werde, dann werde ich das auf jeden Fall weitermachen, ja."	10	6
Wish – not taken on	The VT indicates that they do not wish to be taken on at the end of the VTg	„ich glaub, ich werde mich irgendwie so neu orientieren".	9	5

Code	Definition	Example	Freq'	Part'
unstable	The VT indicates that they feel in an unstable position e.g. that the VTg could be suddenly terminated	„Ich weiß auch nicht, ob der Betrieb noch lange macht. Interviewer: Ja? Azubi: Also, ich hoff mal, dass ich meine Ausbildung da noch beenden kann."	12	4
Leaving would disappoint WP or harm future learning.	The VT indicates that if they were to leave the VTg after the end of the VT time that the WP would be disappointed, or there would be consequences on the part of the VT, eg. that the training would cease or be reduced , reduced effort on the part of the WP would be a result of them redressing the PC balance.	„Ah, ich glaub, mein Chef wär schon'n bisschen beleidigt, wenn ich sagen würde, ich will nicht mehr in der Praxis… also nach meinem Abschluss,"	1	1
WP believes VT will stay on	The WP believes that the VT will want to/ will stay on after the VTg period has ended. They have not been informed of a decision to the contrary	„ich glaube schon, dass er sich darauf verlässt, dass ich nach meiner Ausbildung da bleibe."	8	5
Planed future outside of this firm	The VT indicates that they have planned a future for themselves that is outside the VTG firm. E.g., they intend to leave for another firm/course/school/uni	„Entweder dann halt im Betrieb von meinem Vater oder, ja,"	10	4

Key Words: Terminierung; Arbeit nur bis zum Ende der Ausbildung; Arbeit nicht länger als über die Ausbildungszeit hinaus; Festeinstellung; weiter arbeiten; übernommen werden; Vollzeitkraft; festen Arbeitsplatz; Wunsch des Azubis übernommen zu werden/weiter arbeiten zu dürfen/eine Festeinstellung zu erhalten; Der Azubi will nicht in der Firma bleiben/übernommen werden/keine feste Einstellung; Angst jeder Zeit kündbar zu sein; plötzliches Ende der Ausbildung; überraschender Abbruch der Ausbildung durch dir Firma; die Firma geht pleite/in Insolvenz; WP wird beleidigt / enttäuscht / wütend; WP wird VT weniger Aufgaben/ Schulungen/ Aufmerksamkeit geben, wenn er gehen will; WP glaubt, dass der VT weiterarbeiten wird/möchte; Job in Aussicht; nicht bleiben wird; weg zu gehen: nicht hier bleiben.

D. Psychological contract state dimensions

D1. Learning and teaching

This category targets the factors in the PC pertaining to learning and teaching new skills to the VT.

Code	Definition	Example	Freq'	Part'
Learning by doing	This indicates that the VTs are expected to learn new skills practically	„der Meister lässt einen selber viel machen,"	41	10
Mistakes as learning process	The VT indicates that the attitude to making mistakes is relaxed; making mistakes is seen as part of the learning process	„und wenn man Fehler gemacht hat, draus lernen, kein zweites Mal machen."	27	8
Mistakes not tolerated	The VT indicates that making mistakes is not tolerated.	„aber es gibt ja immer Abmahnungen wegen irgendwelchen dummen Sachen."	8	2
Learning VT responsibility	The VT indicates that they are responsible for their own learning	„weil er sagt, wenn wir nicht lernen wollen, dann macht's für ihn auch keinen Sinn, seine Zeit zu opfern und zu versuchen, das irgendwie rein zu prügeln."	35	10
Learning WP responsibility	The VT indicates that they see the WP as responsible for the VT learning the appropriate skills and theory.	"Natürlich die Förderung der Azubis liegt irgendwo meinem Meister,"	1	1
Learning centred	The VT indicates that the PC has an emphasis on constant learning, and on striving to better the VT.	„Die erklären's mir auch zehnmal"	45	9
Minimum learning	The VT indicates that a minimum is done to encourage the VT's learning of new skills.	„aber denen war's ja auch egal, ob du was lernst oder nicht."	33	6
Testing	The VT states they are formally tested on new material learned.	„Genau, genau, also wir schreiben auch Klausuren auf der Arbeit"	12	6
Checking	The VT states that their work is checked and / or corrected by others.	„also die Sachen, die man bearbeitet hat zum Kontrollieren,"	14	6
Praise / reward	The VT speaks about praise and rewards. e.g. that there they are praised or that they are not praised that they wish they had more praise and rewards that they are given.	„und da hat dann auch mal ein Geselle gesagt: "Ja, haste gut eingekauft"," „sag ich jetzt mal, ne, "haste gut gemacht" und der hat dann auch halt vom Wechselgeld n'Euro oder so genommen. Konntest behalten."	15	6

Key Words: praktische Anwendung; machen und tun; ausprobieren; klassisches Lernen; auswendig lernen; Theorie; stumpfes Lernen; Fehler sind nicht schlimm/dürfen gemacht; aus Fehlern lernt man;

negative Konsequenzen wenn Fehler gemacht werden; fehlerfrei sein müssen; Fehler dürfen nicht gemacht werden; Angst Fehler zu machen; das ist meine Verantwortung; eigenverantwortliches Lernen; für sich selbst lernen; Konsequenzen selbst tragen; neg. Konsequenzen werden dem Arbeitgeber zugeschrieben; Abgeben der Verantwortung an den Arbeitgeber; keine Eigenverantwortung; der Azubi überträgt die Verantwortung auf die Firma; konstantes Lernen; Lernen im Sinne der Verbesserung des Azubis; regelmäßiges lernen; konstante Arbeitsaufträge; bestehendes Lernumfeld regt beständiges lernen an; wenig/minimal Lernen; es werden keine Aufgaben gegeben; der Azubi wird nicht gefordert; wenig/keine Bereitstellung von Lerninhalten; kein Beibringen von wichtigen Aufgaben; testen; getestet werden; Prüfungen; Arbeitsschritte kontrollieren; genehmigen; anschauen/ Prüfen/nachgucken/korrigieren.

D2. Help /Support

This category relates to the amount of help or support that the VT gets from the PC partner.

Code	Definition	Example	Freq'	Part'
Help	The VT indicates that help is available from the WP when needed.	„aber helfen tun sie einem immer."	24	10
Continuing Support	The VT states that he/she is continuously supported by the WP, i.e daily	„weil ich bin nicht allein auf mich gestellt,"	30	8
No Continuing Support	The VT indicates that he/she is not continuously supported by the WP. ie that support is lacking.	„und mein voriger Meister hat sich gar nicht um die Azubis gekümmert"	12	5
Well-being supported	The VT indicated that the WP is committed to supporting the well-being of the VT.	„Also ich glaub schon, dass die möchten, dass ich mich da wohl fühle bei denen."	25	9
Well-being not supported	The VT indicates that the WP is not committed to supporting the well-being of the VT	„ Ja, den interessiert nur, wie ich arbeite" „Keiner hat sich um keinen gekümmert,"	13	5

Key Words: Hilfe; hilfreich; Unterstützung; nicht allein sein/fühlen; die möchten dass ich mich wohl fühle; aufeinander achten; nicht wohlfühlen; nicht aufeinander achten

D3. Fairness

This category describes the state of fairness within the PC

Code	Definition	Example	Freq'	Part'
Fair	The VT sees their WP, or the agreements made with the WP as being somehow fair. They also see the way they are treated as being fair.	„Also jeder wird gerecht behandelt,"	85	10
Unfair	The VT views the WP or the agreements made with the WP as being unfair. Or they are treated unfairly or unjustly by the WP.	„Beweise hat er nicht gehabt, hat mir aber gleich die Kündigung ausgestellt"	71	7

Key Words: fair; gerecht; gleich behandeln; ebenbürtig; unfair; ungerecht; anders behandeln.

D4. Valued Full Member of Workforce

The VT indicates that they are / are not seen as a "full" member of the workplace / work-team. *cf. participation:*

Code	Definition	Example	Freq'	Part'
Not a full member of workplace	The VT indicates that they are not seen or do not see themselves as being a full member of the workforce. e.g they indicate that they do not have a say.	„weil ich nur Auszubildende bin." „aber ich kann ja nicht zu meinem Chef sagen: "Stopp!" (lacht)" „Man äh, natürlich ist es manchmal so, weil man als Auszubildender hat man nicht so viel zu sagen…"	34	10
Full member of the workplace	The VT indicates that they are seen or see themselves as being a full member of the workforce.	„Also ich hab schon das Gefühl, dass ich'ne volle Arbeitskraft bin so im Team"	14	5
Integral/ indispensable member of the workplace	The VT indicates that they feel integral to the team/ workforce. i.e. if they were ill/ or would leave the firm that consequences would be felt...e.g. more stress for others, they could not cope without the VT.	„und wenn ich dann krank werde als Auszubildende, dann kriegen die, dann wird's schon stressig für die"	8	5

Code	Definition	Example	Freq'	Part'
Taking a stand against the firm	The Vt shows that they stood up against the firm somehow. They fought for their rights for an issue or confronted a problem.	„da gab's dann auch noch mal ne Email, die ich mit an die, ähm, an die Geschäftsleitung geschrieben habe deswegen," „aber ich hab das mit Teilschicht angesprochen, dass ich das nicht gut finde."	17	4

Key Words: nur ein Auszubildender; nichts zu sagen; kein Recht; Team; dabei; vollwertiges Mitglied; nichts zu sagen haben als Auszubildender; volle Arbeitskraft; unfehlbar; Stress für die Kollegen, wenn ich krank bin; wenn ich gehen würde kriegen die Probleme; stark sein; etwas sagen.

E: Typologies

E1. Transactional

This category includes features of the PC that are considered to fall under Rousseau's (2000) notion of a transactional PC. This includes economic exchange, specific, narrow duties and a lack of involvement in the organisation.

Code	Definition	Example	Freq'	Part'
Money	Money as a feature of the PC	„und die ganz gute Bezahlung"	32	10
Specific duties	The VT indicates that they have specific duties	„die kriegen wir halt vorgelegt"	10	6
Narrow duties	The VT indicates that they have narrow / limited duties to fulfil	„Ich bin zur Zeit nur noch im Labor und lerne Blut abzunehmen"	13	4
Lack of involvement in the organisation	The VT indicates a lack of involvement and participation in the organisation outside his /her specific duties	„und dann, ähm, kann sich nicht, äh, ja, wie soll ich sagen, viel leisten"	3	3

Key Words: Geld; Vergütung; Kohle; Bezahlung; Lohn; aufgabenspezifisch; bereichsspezifisch; Experte für bestimmte Aufgaben; ich mache nur…; eingeschränktes Aufgabenfeld; nicht involviert in Aufgaben, die über das spezifische Tätigkeitsfeld drüber hinausgehen.

E2. Relational

This category includes features of the PC that are considered to fall under Rousseau's (2000) notion of a relational PC. This includes soceo-emotional features of the PC such as trust and loyalty.

Code	Definition	Example	Freq'	Part'
loyalty	The VT indicates that they feel loyal to the organisation	-	0	0
Protect/promote firm image	The VT tries to protect or promote the firm's image.	„damit wir halt irgendwo am Markt halt gut gestellt sind"	4	2
VT trust	The VT indicates that they feel that they can trust their WP	"Wenn die Zwischenprüfung „jetzt im Sommer gut läuft, dann klappt das"	1	1
WP trust	The VT indicates that they feel trusted by the WP	"Sie hat das komplett vorfinanziert und dann haben wir halt in dem Fall ein Rückzahlungsvereinbarung so mündlich getroffen."	2	2
Participation in the organisation	The VT is involved in the organisation and participates in duties that are outside his/ her specific duties	-	0	0

Key Words: Loyalität/Treue gegenüber der Firma; Solidarität; Verteidigung/Schutz des Firmenimages; Vertrauen in den Arbeitgeber; Glauben an den Arbeitgeber; der Auszubildende hat das Gefühl, dass ihm Vertrauen entgegengebracht wird; involviert in Aufgaben, die über das spezifische Tätigkeitsfeld drüber hinausgehen;

E3. Balanced

This category includes features that are considered to fall under Rousseau's (2000) notion of a balanced PC. This focuses on VT and firm opportunities to develop career advantages. VTs are expected to have a dynamic role in the organisation to help the firm remain competitive. Both VT and WP contribute to each other's learning and development.

Code	Definition	Example	Freq'	Part'
Employability-external	The VT indicates that the WP tries to increase the VT's external employability i.e developing marketable skills outside of the organisation	„man kann sich auch noch weiterbilden …"	0	0
Employability-internal	The VT indicates that the WP tries to increase the VT's internal employability i.e. by teaching skills that are valued by current WP	„und ja Perspektiven da habe, also Möglichkeiten,"	0	0
Dynamic performance	VT is expected by WP to perform new and more	„Ja oder z.B. bietet ja jetzt diese AOK ein neues	2	1

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	demanding goals to help the firm stay competitive.	Hausarztmodell an, wo Leute eingeschrieben werden müssen. Unser Chef hat, und wir müssen ungefähr, also was er so geschätzt hat, das wir mindestens 800 Leute einschreiben müssen in dieses Hausarztmodell."		
Dynamic responsibility	VT takes personal responsibility for making the organisation more successful.	-	0	0

Key Words: zusätzliche Fähigkeiten für andere Berufe; Beförderung; hocharbeiten; aufsteigen in der Firma; Fortbildungen; Wettbewerbsfähigkeit der Firma verbessern; Firmenziele verfolgen; die Firma gibt steigende Ziele zur Verbesserung der gesamten Firmenleistung; Eigenverantwortlichkeit des Azubis die Firma zu verbessern.

E4. Transitional

This category includes features that are considered to fall under Rousseau's (2000) notion of a transitional PC. The VT indicates by mistrust, uncertainty and erosion of the exchange relationship.

Code	Definition Example		Freq'	Part'
VT Mistrust	The VT does not trust his/her WP	„Sagt sie, aber das glaub ich trotzdem nicht"	4	1
WP Mistrust	The VT indicated that they believe the WP does not trust them	"Er hat dann mehr oder weniger immer nach'm Grund gesucht, mich zu kündigen"	3	2
Uncertainty	The VT is uncertain as to their future obligations in the organisation	„aber ich weiß nicht, ob ich danach noch da bleiben werde"	19	7
erosion	The VT expects less from the WP in the future than they get today.	-	0	0

Key Words: Misstrauen/Kein Vertrauen gegenüber dem Arbeitgeber; „die vertrauen mir nicht…"; Misstrauen/kein Vertrauen gegenüber dem Azubi; „… der Azubi ist nicht vertrauenswürdig"; Unsicherheit bzgl. der Zukunft in der Firma; düstere Zukunft; Sorge darüber das die Leistungen, die die Firma gewährt, in Zukunft abnehmen werden z.B. Lohnkürzungen/ Wegfall von Zusatzleistungen.

E5. Reciprocity

Reciprocity relates to the PC as it is an exchange relationship, where both parties, the WP and VT give and take from the relationship.

Code	Definition	Example	Freq'	Part'
Balanced reciprocity	The VT indicates that they get as much from their WP as they give in return.	„Ich glaub, das wär genau gleich."	10	4
VT over-obligation	The VT indicates that they give more than they get in return.	„Also ich hab fast nichts bekommen und hab versucht, alles rauszuholen, was in mir steckt."	12	5
VT under-obligation	The VT indicates that they give less than they receive in return.	„Also so viel gebe ich denen bestimmt nicht da in der Ausbildung."	4	2
Redressing balance	The VT indicates that action is taken to ensure the PC is not one sided e.g. that they work more as a result of increased trust, or that they do less work because they do not get enough respect/ trust etc.	„aber ich hoffe natürlich irgendwo für mich selber, dass, wenn ich dann ausgelernt bin, dass ich der Firma dann Dementsprechendes zurückgeben kann."	11	4

Key Words: das Selbe zurückbekommen wie man gibt; ausgeglichenes Arbeitsverhältnis; Geben und Nehmen; ausbalanciert; der Azubi gibt mehr als er zurückbekommt; mehr Arbeit investieren als die Firma in die Ausbildung; mehr bekommen von der Firma als man gibt; später gebe ich zurück was ich erhalten habe; zurückzahlen der „Leistung"; Ausgleich/Ausbalancierung des Ungleichgewichts; Lob; gut gemacht; positives Feedback; keine Lob.

F: Personal Reference Points for Trainee

F1. Comparisons with Others

This category pertains to the trainees making comparisons to other trainees, workers, students, pupils etc. The comparisons may be favourable or not favourable.

Code	Definition	Example	Freq'	Part'
Comparisons	The VT indicates that they have formed expectations of their PC through other VT's or workers' experiences	„die andern Arzthelferinnen können sich z.B. Plus- und Minusstunden nehmen,"	62	10
Favourable inside comparisons	The VT compares their situation favourably to others who are also doing VTg or to themselves in a different area of their VT.	"Ach so, äh, ja, also von anderen höre ich, dass die Ausbildung zum Teil noch anstrengender ist,"	43	9

Code	Definition	Example	Freq'	Part'
Unfavourable inside comparisons	The VT compares their situation unfavourably to others who are also doing VTg	„ich hör halt von anderen, von Freunden, die auch eine Ausbildung machen, da werden halt nicht, werden keine Klausuren geschrieben und so,"	20	6
Unfavourable outside comparisons	The VT compares their situation unfavourably to others outside the VTg system	„wo die frei hatten halt und abends weg gegangen sind, (…) ich musste zu Hause bleiben"	19	5
Favourable outside comparisons	The VT compares themselves favourably to others outside of VTg e.g. school friends	„Also ich find's ganz gut, im Vergleich zu Schülerin,"	8	3

Key Words: vergleichen; besser als Mitschüler; so gut wie Mitschüler; besser dran sein als Mitschüler; schlechter als/ nicht so gut wie Mitschüler; schlechter dran sein wie Mitschüler; genauso gut dran sein wie Auszubildende/Freunde aus anderen Berufen; nicht so gut dran sein wie Auszubildende/Freunde aus anderen Berufen

F2. Expectations and Beliefs Concerning Training

Expectations of the VT is a start to the PC as it is a part of the schema the VTs have about the job (Rousseau, 2001) This category pertains to utterances about expectations regarding the VT or job coming from VT.

Code	Definition	Example	Freq'	Part'
Expectations	This is utterances about expectations regarding the VT or job coming from VT.	„Also im Großen und Ganzen bis auf so'n paar Tätigkeiten habe ich sie mir so vorgestellt,"	74	10
Beliefs	This is a belief perhaps built on what the VTs schema of what the VT/job/branch etc., should be like. This is what they think they know about the VT.	„Aber ich glaub, irgendwie in dem Fall auch so als Selbstverständlichkeit" „weil sonst, äh, glaube ich nicht, dass man so weit kommt, wenn man sich schon so festfährt, was man darüber denkt"	33	7
Safe job after VTg	The VT speaks about the job being safe and secure after the VTg is finished -or that he/she is sure they will get a job after they have finished the Vtg.	„und wenn man halt übernommen werden würde nach der Ausbildung, weiter da arbeiten kann, dann ist es halt'n relativ sicherer Job"	17	5

Key Words: ich habe geglaubt/gedacht; ich habe mir vorgestellt; ich glaube; ich weiß es; sicheren Job, ich kriege den Job.

F3. Adjusting to the PC/Training

This category pertains to the way the VT adjusted to the PC and the working environment.

Code	Definition	Example	Freq'	Part'
Adjusting	The Vt refers to the way they adjusted to the PC and the working environment.	„Das ist ne heftige Umstellung"	102	10
Gaining independence / becoming more adult	The VT indicates that the VTg has given them added independence, or that they feel more adult as a result of the VTg.	„Das ist natürlich schon'n ziemlicher Einschnitt ins echte Leben, wenn ich das mal so sagen darf."	20	5

Key Words: anpassen; sich an etwas gewöhnen; Anfangsschwierigkeiten; nicht gewohnt, sich dran gewöhnen; Gewöhnung.

F4. Personal goals

The VT speaks about his/her goals and strivings. They indicate what their strivings are e.g. what they wish to do/be later on in life, or what goals they have set themselves in the VTg. They also indicate any conflicts between their goals and their situation.

Code	Definition	Example	Freq'	Part'
Trainees' Personal goals	The VT speaks about his/her goals and strivings. They indicate what their strivings are e.g. what goals they have set themselves in the VTg. Can be personal or work related.	„dann hab ich mir schon das Ziel gesetzt Abitur" „Also was ich jetzt davon, ich hoffe, dass ich meine Ausbildung verkürzen kann"	46	10
Furthering horizons: wants to go further than this VTg	The VT indicates that they want to further their horizons somehow, to self -actualisation; that they wish to do more than this VTg will allow them to.	"aber ich bin dann halt davon ausgegangen oder hatte die Hoffnung, dass ich halt noch später dann irgendwas Besseres machen kann."	21	6
Conflicting with plans / goals	The VTg somehow conflicts with other plans, goals or wishes that the VT has.	„und das schränkt schon ein, weil man dann erst abends die Familie sieht"	24	8
Facilitation or not conflicting with goals /plans	The Vt indicates that there are no conflicts between the Vtg and other goals, plans or wishes that they have.	„Das hat auch bestimmt damit zu tun, ähm, aber das Training ist inzwischen halt so spät, dass ich da auch keine Probleme hätte."	13	5

Key Words: ich wünsche...; ich will...; ich habe vor...; ich hoffe... (bzgl. Ziele z.B. nach der Ausbildung noch studieren); weiter; nicht still stehen; Konflikt; wiedersprechen; Ich will, aber schaffe es nicht; einfach alles zu schaffen; mehr als dieses Ausbildung.

F5. Ethical considerations

This category relates to the Vt's ethics and the firm's ethics. The firm's ethical practices are in focus and the VTs reaction to these ethics, e.g. taking a stand against the firm.

Code	Definition	Example	Freq'	Part'
Disagrees with aspect of firm's ethics / practices	The Vt shows that they are dissatisfied by the way that the firm goes about their business, or that they have an ethical/ moral question about the firm's practices	„auf der andern Seite kann ich, ähm, also bei den Idealen irgendwie so Kommerzialisierung der Kultur (…) warum ich da nicht hin möchte, ähm,"	12	3

Key Words: richtig, falsch, nicht zu stimmen, unmoralisch; finde es nicht gut, unethisch; skrupellos

G: Subjective characteristics of Job

G1. Subjective characteristics of Job

This meta-category describes the subjective characteristics of the job and how the VT believes their job to be; is it interesting, easy, too difficult, whether it is a dream job etc.

Code	Definition	Example	Freq'	Part'
Engaging/ Interesting	The VT indicates that the work is engaging or interesting	„Ja, find ich ganz spannend so"	14	5
Not engaging	The VT indicates the work is not engaging or is boring	„Dann guck ich nur noch auf die Uhr und denk mir, gleich nach Hause!"	9	6
Easy	The VT indicates the work he is given is easy	„Also mir persönlich fällt's momentan leicht,"	5	3
Too easy	The VT indicates the work he is given is too easy	-	1	1
difficult	The VT indicates the work he is given is difficult	„Ja, also das ist wirklich heftig."	35	9
Too difficult	The VT indicates the work he is given is too difficult	„aber ich schaff's halt nicht immer."	14	5

Code	Definition	Example	Freq'	Part'
Manageable	The VT indicates that the work they are given is manageable. Cf. difficult and easy	„also ich komm eigentlich ganz gut damit klar"	12	6
Enjoyable/satisfied:	The VT indicates that he finds the job/task enjoyable and / or they are satisfied with the situation	„aber irgendwo freu ich mich schon da drauf, die zu machen," „also, es macht so einfach Spaß"	70	10
Not enjoyable	The VT indicates that he does not find the job/task enjoyable and/or are not satisfied with the situation	„Mhm! Aber es ist halt nervig, wenn man da den ganzen Tag nur für den Doktor steht, 8 Stunden lang."	43	8
Indifference	The VT is indifferent towards his VTg. They do not find it good or bad.	„..aber arbeiten find ich jetzt auch nicht unbedingt schlimm"	12	4
Variety	The VT indicates that the VTg is varied in its content	„also verschiedene Aufteilungen und nach der Hälfte wechselt man das Büro einmal."	8	4
VTg as "dream job"	The VT indicated that *this* VTg was their idea of a dream or ideal job	„Also ich würd für mich schon sagen, dass das so'n Traumberuf für mich ist."	3	3
VTg not dream job	The VT indicated that this VTg was not their idea of a dream or ideal job	„Also, das ist jetzt nicht so mein Traumberuf gewesen (…)"	6	3
Drecksarbeit- dirty-work	The VT indicates that they have to do jobs that they see as "dirty"	„oder, also, ich sag mal so: in Anführungszeichen "Drecksarbeiten", erstmal."	5	3
stressful	The VT indicated that the job is stressful.	„vorne ist grad die Hölle los an der Anmeldung und dann kommt er noch von hinten und sagt: "Machen Sie mal das und das", und dann klingelt noch das Telefon und er möchte irgendwie, dass man das so alles unter einen Hut kriegt."	17	5
Tiring	The VT finds the job tiring.	„Nach 6 Stunden dann ist meine Aufmerksamkeit… auch weg"	13	4

Code	Definition	Example	Freq'	Part'
positive relationships / friendly atmosphere	The VT states that they have good relationships at work and there is a friendly atmosphere at work. The working climate is good.	„also wir verstehen uns sehr gut in der Praxis. Haben so ein freundliches Verhältnis"	37	8
Problematic relationships	VT indicates there is a problematic atmosphere at work and that they have negative relationship/s with others at work. The working climate is not a positive one	„das Betriebsklima war einfach kacke, auf gut Deutsch,"	7	4
Control	The VT indicates that they are given control over their training/environment/work by the WP, or that they feel somehow in control	„Ja, er sagt auch selber immer zu mir, wenn's zu viel wird, dann soll ich sagen "Stopp, ist mir zu viel, kommen Sie später noch mal",	29	7
Not in control / no agency	The VT feels that they are not in control of an aspect of their training or their work. They feel low/ no agency.	„aber ich kann ja nicht zu meinem Chef sagen: "Stopp!" (lacht)"	22	5
Safe	The VT indicates that they feel safe in their VTg and where they work, e.g. they feel settled, or that they feel safe in the tasks that they have to do at work, they feel sure in what they are doing		1	1

Key Words: interessant; spannend; uninteressant; umspannend; einfach; zu einfach; Kinderarbeit; schwer; knifflig; zu schwer, nicht machbar; unmöglich; gut mit etwas klarkommen; schaubar; möglich; gerade zu schaffen; hinkriegen; Spaß; lustig; gefällt mir; kein Spaß; gefällt mir nicht; verschieden; anderes zu tun; Traumberuf; nicht Traumberuf; Drecksarbeit; Scheißarbeit; sicher fühlen; sicher; gutes Arbeitsklima, Arbeitsklima schlecht; positive Zusammenarbeit; Mannschaft; schlechte Team; schwierige Verhältnisse; freundlich; unfreundlich.

H. Rest Code

These utterances are thought to be somewhat relevant to the research questions but cannot be coded into the above codes and categories due to double meanings, unclear themes or lack of fit to the codes.

Appendix 3. Code Manual Extension – Study 3

I used this continuation of the code manual presented in Appendix 2 from study 1 to code the broken promises that were recorded. It contains a description of each category, and information relating to each code. The codes and their definitions are presented in English as used in the dissertation text, whilst the example quotations from the interviews and the keywords are given in the original German. Any specific coding rules are presented under that code's definition.

Abbreviations used in this document: Freq' = Frequency; Part' =Number of participants contributing to code; PC= psychological contract; VT=vocational trainee; VTg=Vocational training; WP= working partner (who the VT sees as being the other partner in the PC i.e. boss, line manager or trainer).

C. Framework of the Psychological Contract

C3. Temporal factors.

This category includes features relating to the expected duration and of the work with the WP and consequently of the PC

Code	Definition	Example	Frequencies
Shorten training	the VT indicates that they were promised that they could shorten their training but that promise has been broken	Mir wurde versprochen, dass ich verkürzen kann und das wurde heute gebrochen!	1

Key Words: verkürzen

C4. Daily Framework

This category includes promises that have been broken in regards to daily organisational features.

Code	Definition	Example	Frequencies
Break times	The VT were promised a break or lunch break but this was not allocated to them or shortened	Mir wurde eine tägliche Pause von 30 min. versprochen, ich hatte heute nur 5 min. zum essen Zeit.	9

Code	Definition	Example	Freq'
Free Day	The VT was promised a free day but this was not allocated to them or they had to work	Ich muss übernächsten Samstag arbeiten, obwohl mir gesagt wurde, dass ich frei bekomme.	21
Overtime	The VT states that they they were promised no or little overtime and that they then had to work overtime.	Ich musste heute Überstunden machen, obwohl mir gesagt wurde, dass ich nur 8 Stunden arbeiten darf.	39
Holiday	The VT states that they were promised particular holidays but this is not allocated to them any more.	Ich durfte mir keinen Urlaub nehmen, obwohl mir gesagt wurde, dass ich das jeder Zeit machen kann.	4
Location	The VT states that they were promised work in one city or location, but now have to move to another location	Das ich im Hauptsitz bleiben darf und in keine Zweigstelle wechseln muss.	2
Shift timings	The VT was promised certain shifts and others were allocated	Ich musste heute früher anfangen, obwohl mir gesagt worden ist, dass ich die Woche erst später anfangen muss.	2

Key Words: Wechsel, Urlaub, Stunden, Überstunden, Spät, Schicht, Früh, Frei, Freie Tag, Pause, Standort.

D. Psychological contract state dimensions

D1. Learning and teaching

This category targets the factors in the PC pertaining to the learning and teaching of new skills to the VT.

Code	Definition	Example	Frequencies
Responsibility and independence missing	The VT indicates that although they were promised more responsibility they are not given the opportunity to be responsible or independent	Ich mache immer noch unwichtige Aufgaben, obwohl mir versprochen wurde, dass ich Verantwortung übernehmen darf.	2
New work tasks	The VT discusses a (new) task that they were meant to carry out but were then not allowed to or have not yet been taught to do it because of a broken promise	Ich musste heute das gleiche machen, wie immer, obwohl gesagt wurde, ich sollte heute was Neues dazu lernen.	11
Next step in organisation	The VT indicates that although it was promised to them, they are not progressing at the desired	Du wirst Shop Leiter im Juni	2

Code	Definition	Example	Frequencies
	rate or in the right direction to next step up o the next level in the firm (promotion)		

Key Words: Steigerung, Aufstieg, neues lernen, neuen Aufgabe, Verantwortung, Selbständigkeit

D2. Help /Support

This category relates to the amount of help or support that the VT gets from the PC partner

Code	Definition	Example	Frequencies
Questions from VT not answered	The VT indicates that they did not get an answer to a question they asked, although they were promised that they could ask questions any time.	Ich habe heute Ärger bekommen, weil ich was nachgefragt habe, was ich noch nie gemacht habe, obwohl mir versprochen wurde, dass ich fragen darf, wenn ich was nicht weiß.	6

Appendix 4. PsyCoVo Instructions and Item

Instructions

Was wurde dir bisher bei der Arbeit versprochen und wie ist es tatsächlich?

Bestimmt haben dein/e Chef/in oder dein/e Ausbilder/in Andeutungen oder Versprechen gemacht, wie bestimmte Dinge während deiner Ausbildung ablaufen werden, z.B. wie die Arbeitszeiten sein werden, wie viel Unterstützung du bekommen wirst oder was genau du alles lernen wirst.

Manchmal stellt man dann aber während der Ausbildungszeit fest, dass nicht alle dieser Versprechen tatsächlich eingehalten werden.

Ein _festes_ Versprechen

Ein _angedeutetes_ Versprechen

Bei den folgenden Fragen sollst du verschiedene Versprechen, die es während einer Ausbildung geben kann, **auf zwei Arten beurteilen.**

In Spalte **A** sollst du ankreuzen, ob und in welcher Weise dir Versprechen gemacht wurden.

In Spalte **B** sollst du einschätzten, wie es tatsächlich in deinem Ausbildungsbetrieb läuft.

↓ ↓

Bitte fülle Spalte B auch aus, wenn keine Versprechen gemacht wurden. Bitte beantworte die Fragen Zeile für Zeile und nicht Spalte für Spalte.

A **B**

Es wurde mir von Seiten des Ausbildungsbetriebs versprochen oder angedeutet, dass...			Tatsächlich ist es bei meiner Arbeit so, dass…			
Kein Versprechen ↓	**Wurde mal angedeutet** ↓	**Wurde fest versprochen oder niedergeschrieben** ↓	**Stimmt nicht** ↓	**Stimmt kaum** ↓	**Stimmt fast** ↓	**Stimmt** ↓
1	**2**	**3**	**1**	**2**	**3**	**4**

Scale Items

Note. R = reverse score items. *= Not included in final scale.

Support

S1…es dem Betrieb wichtig ist, dass ich mich wohl fühle.*

S2...es den Betrieb interessiert, ob ich glücklich bin.*

S3…es eine/n Ansprechpartner/in für mich gibt, wenn ich nicht weiter weiß.*

S4…ich beim Arbeiten unterstützt werde.*

S5...wenn ich um Hilfe bitte, ich die Hilfe bekomme, die ich benötige.*

S6…ich nicht die gleiche Verantwortung trage wie ein/e ausgelernte/r Arbeiter/in im Betrieb.*

Fair

F1…ich nicht mehr Drecksarbeit machen muss als alle anderen, die im Betrieb arbeiten.

F2…alle gleich behandelt werden, wenn sie gute Arbeit leisten

F3… ich gerecht behandelt werde.

F4…wenn ich Überstunden mache, ich diese abbummeln darf.

F5 ….wenn ich Überstunden mache, ich diese abbummeln darf

F6…ich vom Betrieb die Dinge bekomme, die mir zustehen.

Learning by Doing

LBD1…ich Dinge wiederholen darf, bis ich es kann.

LBD2...ich selber arbeiten darf und nicht nur zuschauen muss.

LBD3…ich in der Ausbildung viel ausprobieren darf.

LBD4…ich Dinge alleine machen darf.

LBD5...ich selber viel machen darf.

Learning Centred

LC1…sie mir viele Dinge erklären werden.

LC2…mir während der gesamten Ausbildungszeit viel beigebracht wird.

LC3…meine Aufgaben während der Ausbildungszeit immer schwieriger werden.

LC4…mir Feedback zu meiner Arbeit gegeben wird.

LC5... positiv auf Fragen von mir reagiert wird.

LC6...sie mir helfen werden so viel wie möglich zu lernen.

LC7…es nicht schlimm ist, wenn ich Fehler mache, solange ich daraus lerne.

LC8...ich Konsequenzen spüren werde, wenn ich Fehler mache.(R)*

Valued full member

V1…ich nichts zu sagen habe, weil ich nur ein Azubi bin.(R)*

V2…ich meine Meinung über den Betrieb äußern kann, auch wenn sie kritisch ist.*

V3…ich von den wichtigen Arbeiten ausgeschlossen werde. .(R)*

V4…ich da bin, um ausgenutzt zu werden. .(R)*

V5…ich als wichtiger Teil des Teams gesehen werde.*

Appendix 5. Scales Used in Study 2

Note Please see Appendix 4 for the Psychological Contract Measure for Vocational Trainees.

R= Reverse Coded; *= In original published scale but not included in my analysis.

Personal (Work) Goal Appraisals

Personal Work Goal Commitment

Brunstein (1993, 2001)

1. Auch wenn es mich sehr viel Anstrengung kosten sollte, werde ich alles tun, um dieses Anliegen zu erreichen.
2. Dieses Anliegen will ich unter keinen Umständen aufgeben.
3. Ich kann es kaum erwarten, etwas für dieses Anliegen zu tun.
4. Mit diesem Anliegen identifiziere ich mich voll und ganz.

Personal Work Goal Attainability

Brunstein (1993, 2001)

1. Mein Alltag ist voller Anregungen, etwas für dieses Anliegen zu tun.
2. Mein Alltag bietet viele Gelegenheiten, um etwas für die Verwirklichung dieses Anliegens zu tun.
3. Die Verwirklichung dieses Anliegens hängt von Umständen ab, die ich nicht beeinflussen kann. (R) *
4. Ich kann meine Lebenssituation so gestalten, dass sie für die Verwirklichung dieses Anliegens besonders günstig ist.
5. Aus meinen Kontakten zu anderen Menschen erhalte ich viele Ideen, wie ich dieses Anliegen verwirklichen kann.
6. Andere Menschen ermutigen mich, etwas für dieses Anliegen zu tun.

Personal Work Goal Progress

Brunstein (1993, 2001)

1. Bei der Verwirklichung dieses Anliegens mache ich kaum Fortschritte.
2. Bei der Verwirklichung dieses Anliegens komme ich sehr gut voran.
3. Viele meiner Bemühungen, etwas für dieses Anliegen zu tun, misslingen.
4. Bei der Verwirklichung dieses Anliegens habe ich viele Erfolgserlebnisse.

Trainer Support for Trainee's personal Work Goal

Brunstein, Dangelmayer and Schultheiss (1996)

1. Mein/e Ausbilder/in gibt mir viele Gelegenheiten, an meinem Anliegen zu arbeiten.
2. Mein/e Ausbilder/in zeigt mir, dass er/sie von meinem Anliegen nicht begeistert ist.(R)
3. Mein/e Ausbilder/in unterstützt mich zuverlässig bei der Erreichung meines Anliegens, wenn ich sie/ihn darum bitte.
4. Mein/e Ausbilder/in arbeitet in einer Art und Weise, die im Konflikt zu meinem Anliegen steht.
5. Mein/e Ausbilder/in gibt mir kaum Zeit, um mein Anliegen zu erreichen.(R)
6. Mein/e Ausbilder/in zeigt viel Verständnis für mein Anliegen.

Satisfaction with Life

Original scale by Diener et al., (1985) German version from Maier (2001).

1. Im Allgemeinen verläuft mein Leben genauso, wie ich es mir wünsche.
2. Meine Lebensumstände sind ausgezeichnet.
3. Ich bin mit meinem Leben zufrieden.
4. Bislang habe ich in meinem Leben die Dinge erreicht, die mir wichtig waren.
5. Wenn ich mein Leben noch einmal von vorne beginnen könnte, würde ich fast nichts ändern.

Meaning at Work.

Original Scale by the author

1. Meine Arbeit ist mit dem verbunden, was ich im Leben für wichtig halte.
2. Meine Arbeit passt zu meinen Werten und Überzeugungen.
3. Mit dieser Arbeit bin ich genau, wo ich sein möchte.
4. Ich sehe einen Sinn in meiner Arbeit.
5. Meine Arbeit bringt mir mehr als nur Geld.

Intention to Quit

Questions 1 and 2 original by author; Question 3 (Hackman & Oldman, 1980);Question 4 (Mobley, Griffeth, Hand & Meglino, 1979).

1. Willst du gerne in diesem Betrieb bleiben, nachdem du deine Ausbildung beendet hast?
2. Würdest du in deinem Ausbildungsbetrieb bleiben, wenn es dir angeboten würde?
3. Hast du konkrete Pläne, deine Ausbildung innerhalb der nächsten Monate zu kündigen?
4. Denkst du oft daran, bei deinem Ausbildungsbetrieb zu kündigen?

Job Satisfaction

Short version oft he"Arbeitsbeschreibungsbogens" (Neuberger & Allerbeck, 1978).

1. Wie zufrieden sind Sie mit Ihren Kollegen?
2. Wie zufrieden sind Sie mit Ihrem Vorgesetzten?
3. Wie zufrieden sind Sie mit Ihrer Tätigkeit?
4. Wie zufrieden sind Sie mit den Arbeitsbedingungen?
5. Wie zufrieden sind Sie mit der Organisation und Leitung?
6. Wie zufrieden sind Sie mit Ihren Entwicklungsmöglichkeiten?
7. Wie zufrieden sind Sie mit Ihrer Bezahlung?
8. Wenn du nun an alles denkst, was für deine Arbeit eine Rolle spielt (z.B. die Tätigkeit, die Arbeitsbedingungen, die Kollegen und Kolleginnen, die Arbeitszeit usw.), wie zufrieden bist du dann *insgesamt* mit deiner Arbeit?

Promise of Employment

Original scale.

1. Will dein Ausbildungsbetrieb dich übernehmen?
2. Wenn du mit Ja oder Nein geantwortet hast, kreuze bitte unten an, warum?
   ... weil mein/e Ausbilder/in es mir gesagt hat.
   ... weil mein/e Ausbilder/in es angedeutet hat.
   …weil ich es im Gefühl habe.

PC Clartiy

Original scale by auhor

1. Mein/e Ausbilder/in hat mir klar gesagt, was von mir erwartet wird.
2. In meiner Ausbildung musste ich selbst herausfinden, wie es in meinem Ausbildungsbetrieb läuft.
3. In meinem Ausbildungsbetrieb habe ich Verpflichtungen, von denen mir niemand im Betrieb erzählt hat.
4. Mein/e Ausbilder/in hat nicht deutlich geäußert, was er/sie von mir erwartet.

Organisational Citizenship Behaviours

German Organisational Citizenship Behaviours (OCB) scale (*Fragebogen zur Erfassung des leistungsbezogenen Arbeitsverhaltens*). by Staufenbiel und Hartz (2000).

Altruism

1. Ich helfe anderen, wenn diese mit Arbeit überlastet sind.
2. Ich wirke bei auftretenden Meinungsverschiedenheiten ausgleichend auf Kollegen / Kolleginnen ein.
3. Ich ergreife freiwillig die Initiative, neuen Kollegen/Kolleginnen bei der Einarbeitung zu helfen.
4. Ich bemühe mich aktiv darum, Schwierigkeiten mit Kollegen/ Kolleginnen vorzubeugen.
5. Ich muntere Kollegen/Kolleginnen auf, wenn diese niedergeschlagen sind.

Conscientiousness

1. Ich komme immer pünktlich zur Arbeit.
2. Ich informiere frühzeitig, wenn ich nicht zur Arbeit kommen kann.
3. Ich zeichne mich durch besonders wenige Fehlzeiten aus.
4. Ich nehme mir nur in äußerst dringenden Fällen frei.
5. Ich beachte Vorschriften und Arbeitsanweisungen mit größter Sorgfalt.

In-role behaviours

1. Ich erfülle übertragene Arbeitspflichten in angemessener Weise.
2. Ich komme den in der Arbeitsplatzbeschreibung festgelegten Verpflichtungen nach.
3. Ich führe die Aufgaben aus, die von mir erwartet werden.
4. Ich erfülle die gesetzten Leistungsanforderungen an meine Position.
5. Ich vernachlässige Dinge, die zu meinen Pflichten gehören.

Trust in Trainer

Addapted from Brunstein, Dangelmayer and Schultheiss (1996)

1. Ich bin mir nicht sicher, ob ich meinem/meiner Ausbilder/in voll vertraue.
2. Mein/e Ausbilder/in ist offen und direkt zu mir.
3. Ich glaube, dass mein/e Ausbilder/in hohe Moralvorstellungen hat.
4. Ich denke, dass die Absichten meines/meiner Ausbilders/Ausbilderin im Allgemeinen gut sind.
5. Mein/e Ausbilder/in ist nicht immer ehrlich und sagt nicht immer die Wahrheit.
6. Ich glaube nicht, dass mein/e Ausbilder/in mich fair behandelt.
7. Ich finde, dass mein/e Ausbilder/in mich in einer gleichmäßigen und vorhersehbaren Art behandelt.

Appendix 6. Code Manual: Most important Personal Work Goal

I used this coding Manual to code the interviews. It contains a description of each Meta-category, category, and information relating to each code. The codes and their definitions and the keywords are presented in English as used in the dissertation text, whilst the example quotations from the interviews are given in the original German.. Any specific coding rules are presented under that code's definition.

Note: All meta-category names and descriptions apart from *relationships at work* stem from Hyvönen et al., (2009). I inductively created all of the categories and codes and their definitions. The examples are all real examples taken from the trainees reported goals.

A. Competence

Starting or finishing training, job performance, and professional development.

A1 Become Qualified

Gain the vocational qualification and becoming well qualified in their job area.

Code	Definition Goal is to…	Example	Frequencies
Finish training successfully / pass tests	…successfully pass the VTg[94] qualification	„…meine Ausbildung erfolgreich abschließen"	113
Be good at the job	…be a good worker	„…eine gute Arbeitskraft sein"	14
Performance - be the best	…be the best or one of the best.	„…am Ende der Ausbildung zu den Top 10 in NRW zu gehören"	7
Shortened training	…compete a shortened training programme due to good performance	„…meine Ausbildung in 2,5 Jahren schaffen"	5
Success	…generally be successful in the VTg	„…erfolgreich sein"	5

Key words: finish, manage, pass, complete, good work, good worker, best, top, better than, shorten, short training, success.[95]

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[94]Abbreviations used in this document: PWG = Personal work goal; VT = vocational trainee; VTg = Vocational training.

A2 Personal Growth

Improve personally by bettering oneself, and improving soft skills.

Code	Definition Goal is to…	Example	Frequencies
Gain independence	…become more independent	„…selbständiger werden"	53
Gain experience	…get more experience	„…viel Erfahrung in diesem Beruf sammeln"	30
Gain confidence / become surer	…become more confident and sure of oneself	„…sicherer werden in den Sachen, die ich mache"	16
Personal development	…develop personally and to improve soft skills	„…besser mitdenken"	12
Take on responsibility	…become more responsible	„…lernen Verantwortung für meine Handlungen zu tragen"	7
Own Project	…have a project of one's own to work on independently	„selbständig ein eigenes Projekt bearbeiten"	5
Engagement-effort	…to engage at work, or to put in more effort at work	„…mich zu 100% in dem Betrieb engagieren"	4

Key words: independence, independent, alone, experience, collect, practice, confidence, strong, sure, develop, more, better, improve, responsible, responsibility, to be trusted, effort, own, solo, project, try hard, engage.

A3 Learning

To learn what the job entails.

Code	Definition Goal is to…	Example	Frequencies
Knowledge acquisition	…increase knowledge	„…so viel wie möglich an Fachwissen für meinen Beruf erlernen"	30
Learn specific skill	…increase competencies in particular skill or task. Learn how to do a certain skill or task	„…sicher sein im Umgang mit Kunden"	11

[95] As I coded these goals alone rather than in collaboration with German research assistants I documented the keywords in English rather than German

Code	Definition Goal is to…	Example	Frequencies
Learn complete job	…get a complete picture of the job being learned. To learn all aspects of the job.	„…alle Abteilungen und Aufgaben einer Bürokauffrau kennen zu lernen"	4

Key words: learn, know, knowledge, be able to do, all, complete, totally.

A4 Be prepared

To be well prepared for what is to come

Code	Definition Goal is to…	Example	Frequencies
well prepared for future /future job	…be prepared for future events and prepared for life as an adult.	„… für meinen weiteren beruflichen Werdegang gut vorbereitet sein!"	31
well prepared for final test	…be well prepared to tackle the final assessment.	„…mich gut für die Prüfung vorbereiten"	17

Key Words: prepared, ready, able to start, test, future, life.

B Job Security

Receiving a permanent contract or the continuation of employment. To have a safe and secure job in the future.

Code	Definition Goal is to…	Example	Frequencies
Get job	…get a job at the end of the training	„Ich möchte eine Festanstellung nach meiner Ausbildung."	33
Be Taken on	…be taken on by the VTg firm at the end of training	„Ich möchte nach der Ausbildung übernommen werden."	22
secure future	…have a safe and secure future.	„Eine gesicherte Zukunft haben"	10

*Key words***:** job offer, get job, employed, employment, not unemployed, job contract, taken on, carry on in firm, safe, secure, secured, not uncertain, certain.

C Progression

Advancing to a higher position and promotion

Code	Definition Goal is to…	Example	Frequencies
Career Progression	…progress towards a better job.	„Ich möchte eine Abteilung leiten.“	37

Key Words: improve, career, better, further training, better job, study, university, further, improve job.

D Well-Being

Health, work satisfaction, and work-life balance

Code	Definition Goal is to…	Example	Frequencies
Enjoyable work	…have an enjoyable, fun job.	"Spaß während der Arbeit"	7
Earn respect / make positive impression	… be respected by others, be seen in a good light.	„Ein gutes Ansehen in der Firma erreichen“	9
More free time	…to have increased amounts of free time or holidays	"Mehr Freizeit haben"	3

Key Words: fun, enjoyment, satisfied, enjoyable, respect, respected, looked up to, reputation, esteem, kudos, free time, more time, holidays.

E Relationships at Work

Relationship with colleagues, trainees, and colleagues.

Code	Definition Goal is to…	Example	Frequencies
Relationships at Work	…maintain positive relationships with colleagues, fellow trainees, and superiors	„Ich möchte einen guten Umgang mit Kollegen und Vorgesetzten.“	12

Key words; relationships, personal, relate, friendly, amiable, working relationship, good, positive, nice, dealing.

F Finance

Receiving regular salary and pay rise.

Code	Definition Goal is to…	Example	Frequencies
Finance	…raise finances or getting a well-paid or better paid job, to have money	„…Ich möchte arbeiten und Geld verdienen."	5

Key Words: money, cash, bank, pay.

G Rest

Personal work goals that cannot be coded due to a lack of information

Code	Definition	Example	Frequencies
Rest	Goal cannot be coded into the existing or a new inductive code	„Veränderung"	1

Appendix 7. Instructions and Scales used in Study 3.

General Instruction

Danke, dass du das Logbuch ausfüllst. Bitte fülle es 2 Wochen lang nach der Arbeit aus. Es wird jeden Tag etwa fünf Minuten dauern, das Logbuch fertig zu stellen.

Scale Items

There was one question per scale for the following items.

Goal Progres : Ich bin heute sehr gut zu diesem Anliegen vorangekommen.

Goal Salience: Heute hat dieses Anliegen eine wichtige Rolle gespielt.

Work Performance: Ich habe heute sehr gut gearbeitet.

Work Effort: Ich habe mich heute sehr angestrengt gut zu sein.

Work Goal Progress: Ich bin heute sehr gut zu diesem Anliegen vorangekommen.

Activated effect

Short German version (Brunstein, 2001); of the UWIST Mood Adjective Checklist (Matthews, Jones and Chamberlain, 1990)

Auf dieser Seite sind einige Wörter aufgeführt, die verschiedene Gefühle und Emotionen beschreiben. Bitte lies jedes Wort und entscheide, wie jedes der Wörter dazu passt, wie du dich heute bei der Arbeit gefühlt hast. Bitte denke daran nur eine Zahl (pro Wort) anzukreuzen

Ich fühlte mich…

1. ...aktiv
2. ...entspannt
3. ...hellwach
4. ...ruhig
5. ...nervös
6. ...energielos

7. ...gelassen
8. ...aufgeregt
9. ...tatkräftig
10. ...träge
11. ...unruhig
12. ...passiv

Instruction for Broken Promises Scale

Bestimmt haben dein/e Chef/in oder dein/e Ausbilder/in zu dir gesagt oder dir versprochen wie es für dich bei der Arbeit sein wird. Manchmal werden diese Versprechen oder Abmachungen gebrochen...

Versprochen   **Gebrochen**
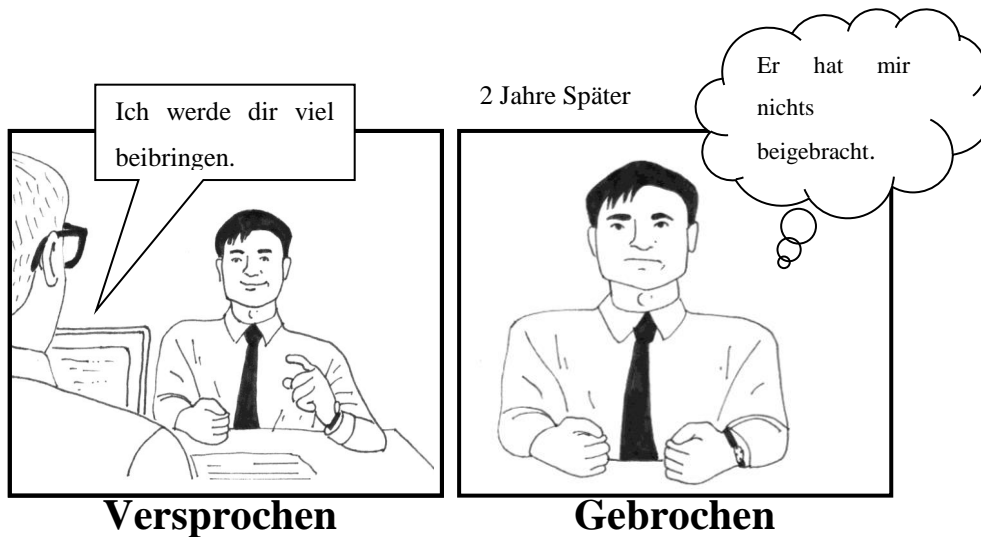
Versprechen müssen nicht immer ausgesprochen werden. Manchmal kann man sie auch aus dem Verhalten anderer Menschen erkennen.

Manchmal werden diese Art von Versprechen auch gebrochen...

Versprochen   **Gebrochen**

Reporting Promise Breaks

Trage in die Kästchen ein welche Versprechen heute gebrochen wurden (das Versprechen kann alt oder neu sein).

Wenn keine Versprechen gebrochen wurden, lass die Kästen leer und blätter weiter auf die nächste Seite.

Importance of the broken promises for the personal work goal

Wie wichtig war dieses Versprechen für deine eigenen beruflichen Anliegen?