

# **Bridging careers and commitment**

*The moderating effect of career opportunities on the relationship between career commitment and organizational commitment*

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## **Abstract**

This study investigates the relationship between career commitment and organizational commitment, examining the moderating role of perceived career opportunities. Drawing on commitment system theory (CST) with social exchange theory (SET) as a driver, the research addresses a gap in understanding how multiple commitment targets interact in organizational settings. A quantitative approach was used, utilizing survey data from The Healthy Brain Study with a sample size of 455 employees in their thirties. Results revealed a positive relationship between career commitment and organizational commitment, supporting the initial hypothesis. Importantly, perceived career opportunities were found to moderate this relationship, with a stronger positive association observed when career opportunities were perceived to be high. These findings contribute to the theoretical understanding of commitment dynamics in the workplace by demonstrating the interrelated nature between multiple, interacting targets of commitment. By examining the interplay between these two types of commitment, this research bridges a gap between the career and commitment literatures and promotes a more integrated understanding of these traditionally separate areas of research. CST is combined with SET in order to explain how career opportunities drive commitment systems. The results lay a foundation for future studies on multi-target commitment systems in diverse work environments. Future research should further examine the moderating role of other contextual factors in commitment systems.

**Keywords:** Career commitment, Organizational commitment, Commitment system theory (CST), Career opportunities, Social exchange theory (SET)

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## 1. Introduction

People have been changing jobs more frequently over the past decade. For example, the number of people changing jobs in the Netherlands has doubled compared to 10 years ago (UWV, 2023). This is causing concern among employers. It is therefore important for employers to know what kind of support and stimulation they need to provide to these individuals in order to keep them working in their organization, in other words, to keep them committed to their organization. Commitment refers to “a volitional psychological bond reflecting dedication to and responsibility for a particular target” (Klein et al., 2012, p. 130). Organizational commitment is important, because organizations can use it as a tool to enhance employee retention and performance (Stazyk et al., 2011).

However, because bonds of commitments also exist independent of organizations, another commitment target might play an interesting role in this context, such as commitment towards one’s career (Meyer, 2009). Specifically, career commitment refers to “an individual’s attitude toward his or her vocation, or an individual’s willingness to keep membership in an occupational field, or an emotional linkage between an individual and his or her vocation.” (Zhu et al., 2021, p. 506). Career is an interesting target because people search for a sense of security, which includes feeling stable, having a purpose in life, and knowing who they are (Meyer, 2009), even as they care about their careers. While ‘the organization’ as a target has been studied most often in the commitment literature (Van Rossenberg et al., 2022), ‘career’ as a target of commitment has been studied within the careers literature, but much less so (Zhu et al., 2021). Although less studied, commitment to one's career is crucial for employers as it is linked to individual competencies and allows employees to accumulate expertise and achieve career success (Ahmed, 2017). Since Europe is currently experiencing a tightening of the labor market, it is now even more important for employers to retain employees (European Labour Authority, 2023). Career commitment and organizational commitment have therefore become an important research agenda in the field of Human Resource Management (HRM), however it remains an intricate question how both targets of commitment can be managed adequately together.

This study aims to address a notable gap in the existing literature by aligning two distinct yet interrelated lines of research: commitment and career literature. Currently, both domains have been studied independently, resulting in a fragmented understanding of the intricate relationship between an individual's commitment to their career and their commitment to the

organization. Career and organizational commitment developed in separate academic subfields, organizational commitment more in the HR literature and commitment to the career in the career literature. In the literature, it is noted that these two areas almost do not touch. Despite repeated calls for studies to include multiple targets of commitment, particularly those targets relevant to the workplace environment, multiple targets of commitment are rarely studied together (van Rossenberg et al., 2022). This oversight is particularly significant given that Klein et al. (2022) highlight the inadequacy of current research in explaining when commitments conflict or synergize, how these relationships evolve over time, and how they collectively influence employee behavior. It is argued that studying commitments in isolation may lead to inaccurate predictions (Klein et al., 2022), emphasizing the need for more nuanced research into multiple commitment dynamics. Moreover, Wasti et al. (2016) emphasize the importance of considering context when understanding and conceptualizing workplace commitment. However, previous research on this relationship has not particularly taken context into account.

To contribute to this research gap, the purpose of this study is to provide insight into the relationship between career commitment and organizational commitment in the context of whether or not the organization provides career opportunities. This results in the following research question: *To what extent does perceived career opportunities within the organization moderate the relationship between commitment to one's career and commitment to one's organization among employees?*

Despite the fact that organizations remain the primary mechanism for career development (Weer & Greenhaus, 2020), many organizations mismanage this crucial aspect. According to Davis (2015) there are several ways organizations mismanage career development. One of the reasons is that many organizations fail to prioritize and plan employee career opportunities (Davis, 2015). If possibilities for personal career growth are not available at the current employer, under certain conditions people may decide to pursue them at other organizations (Weng et al., 2010). Therefore, the role of career opportunities is interesting to explore in the study of commitment relationships.

To better understand and integrate the literature on career and organizational commitment, this thesis draws on commitment systems theory (CST). CST is a theory that defines commitment as a system, a set of targets that are interrelated as a whole. It considers the temporal dynamics and context of commitment systems (Klein et al., 2022), providing a framework to explore how organizational context, such as perceived career opportunities, might

influence the relationship between career and organizational commitments. Furthermore, from the perspective of CST, any two commitments can be synergistic, neutral, or conflicting, depending on the context (Klein et al., 2022). CST provides a framework for understanding commitment relationships, but it may benefit from a driver theory like social exchange theory (SET) to explain the underlying mechanisms that cause commitments to interact in specific ways under different contexts. In examining the role of career opportunities provided by the employer (context), this thesis draws on SET as a driver of commitment systems. According to SET, the relationship between employees and organizations operates on the principle of reciprocity (Homans, 1958). In other words, employees and organizations engage in an exchange of tangible (e.g., rewards) or intangible (e.g. trust) benefits that are mutually advantageous (Kuvaas et al., 2017). Indeed, previous work has built on social exchange processes requiring investment from both employees and organizations, because both parties make a long-term investment in each other, with the expectation that the beneficiary will one day return the favor (Kuvaas et al., 2017).

The first theoretical contribution this study provides is a more thorough examination of multiple targets of commitment. By integrating two targets, this study makes a valuable theoretical contribution to both career research and commitment research by bringing the two literatures closer together. The existing research on the relationship between organizational commitment and career commitment (Goulet & Singh, 2002; Ahmed, 2017) is exclusively correlational and time-lagged or causal effects are previously not examined. Career commitment itself has not been researched as thoroughly, as the literature on commitment to the career is disconnected and lacks conceptual clarity by drawing on a variety of definitions (Aryee & Tan, 1992). The second theoretical contribution of this study lies in building on and extending CST. CST is a relatively new theory, and while the literature typically discusses only one target of commitment (e.g., organizational commitment or career commitment), it is important to note that there is not a single target of commitment due to their interrelatedness within a system (Klein et al., 2022). Thus, this study makes a valuable contribution by using a novel theory that posits that commitment has multiple, interacting targets (Klein et al., 2022). The third theoretical contribution of this study is that it considers the context with the organization. This study examines the context in which the organization does or does not provide career opportunities. Career opportunities as a moderator in the relationship between career commitment and organizational commitment has not been studied before. In order to examine the context that facilitates this exchange of opportunities, this study will focus on how

context drives commitment systems. However, systems theory needs to be combined with another theory to arrive at drivers in systems. SET is used for this purpose.

Furthermore, career commitment contributes practically to both management and employees (Aryee & Tan, 1992). Employees with high career commitment are less likely to leave their jobs and careers (Weng & McElroy, 2012), which is essential for employers aiming to retain staff, especially in a tight labor market (European Labour Authority, 2023). This study helps management and HR to enhance career opportunities, such as promotions and training, to strengthen the link between career and organizational commitment. Since lack of career opportunities is a major reason for employee turnover (Davis, 2015), it is important to provide these opportunities. This study is also relevant to employees because higher career commitment is associated with greater life satisfaction and positive emotions (Demirtas & Tezer, 2012), and job satisfaction increases when career development opportunities are available (Dewi & Nurhayati, 2021).

This study applies a quantitative deductive approach using quantitative methods within a time-lag design to answer the above-mentioned research question. This approach involves testing hypotheses derived from existing theories, particularly CST and SET, through the analysis of numerical data collected at two points in time.

This thesis is structured as follows. Chapter one provides an introduction to the topic, formulates the research problem and question, and explains the significance of the study. Chapter two discusses the theoretical background of the main concepts. Following this, chapter three focuses on the methodology, detailing the research methods and techniques used for data collection and analysis. This is followed by chapter four, which presents and analyzes the research findings. Subsequently, chapters five and six delve into the discussion and conclusion.

## 2. Theoretical background

This chapter provides an outline of the theoretical background of the main concepts in this thesis. The concepts discussed in this chapter are organizational commitment and different approaches of studying this concept, career commitment, the relationship between career and organizational commitment, and the moderating role of career opportunities within the organization.

### 2.1 Different theoretical approaches to studying Organizational commitment

In order to understand the focus of the current study on commitment, it is important to explain where it fits into existing theory. Therefore, an explanation of the historically important three-component model (TCM) follows. Then the commitment system theory (CST) will be introduced to give a broader theoretical background of this study and the reasons for choosing this theory over the alternative and more widely used TCM will be explained.

The TCM, proposed by Allen and Meyer (1990), stands as the predominant framework, and has been the cornerstone of research on work commitment for nearly three decades (Somers et al., 2020). The three components of organizational commitment of this model are: affective, continuance, and normative commitment (Allen & Meyer, 1990). There has been a lot of criticism of the TCM. Solinger et al. (2008) state that this model is inconsistent and that the three components cannot be considered as components of the same attitudinal phenomenon of organizational commitment. Moreover, they conclude that the TCM is a model for predicting employee turnover rather than organizational commitment. Therefore, Solinger et al. (2008) call for the abandonment of TCM and emphasize the need for a clear, concise understanding of organizational commitment as a singular construct. Somers et al. (2020) also conclude that criticisms directed at the TCM primarily concern its structure and scope, which are perceived as overly complex and lacking logical consistency.

The criticism of the TCM was followed by the reconceptualization of workplace commitment (Klein et al., 2012) and a new measurement instrument (Klein et al., 2014). Interestingly, Mueller et al. (1992) actually called for a target neutral approach much earlier, as did Klein et al. 's (2012) definition of commitment. In fact, they showed that two forms of commitment, loyalty, and intention to stay, have much in common and are simply different measures of the same construct (Wallace & Price, 1991). This study conceptualizes

commitment by Klein et al. (2012). Klein et al.'s (2012) workplace commitment is identified as one of four types of workplace bonds on a continuum and commitment is redefined (p. 137) as “a volitional psychological bond reflecting dedication to and responsibility for a particular target” (Klein et al., 2012, p. 130). In Klein et al.'s (2012) research, the term 'bond' refers to how the bond is experienced, and the term 'target' refers to specific foci to which a bond is formed - for example, the organization, career, supervisor, and so on. This conceptualization is more widely applicable across various workplace objectives because it is not rooted in the assumptions of a specific target, such as the organization. Consequently, it is better equipped to assess commitment to multiple targets and is more applicable in a dynamic workplace environment (Klein et al., 2012).

CST posits that employees form commitments to multiple targets (Klein et al., 2022). In contrast, TCM focuses primarily on the organization as a target. Therefore, CST is more useful for this study than TCM. Van Rossenberg et al. (2022) also state that workplace commitment is better represented as a set of multiple foci of commitment rather than just 'organizational commitment', which is supported by CST, that it is better to assess commitment to multiple targets. CST is introduced by Klein et al. (2022), which provides insights into how multiple commitments are interrelated. Klein et al. (2022, p. 117) define commitment systems as “a network of interrelating commitments to a set of targets”. This theory is also more recent than TCM. CST takes a systems perspective, suggesting that the effects and operation of a commitment depend on the presence and interactions of other commitment targets within the same system (Klein et al., 2022).

Although various kinds of work-related commitment are theoretically linked, many occupational psychologists have noted that career commitment, because of its self-interested nature, is fundamentally different from other forms of commitment (Hall, 1971). Because it is important for HRM researchers to give significant thought to several target(s) of commitment (Van Rossenberg et al., 2022), the focus of this study is on the relationship between two commitment targets, career commitment and organizational commitment.

## 2.2 Career commitment

While in the past careers were usually defined in terms of the employer-employee relationship, Sullivan and Baruch (2009, p. 1543) define a career as “an individual's work-related and other

relevant experiences, both inside and outside of organizations, that form a unique pattern over the individual's life span". This definition acknowledges both the individual's interpretation, including one's view of career events, career alternatives, and outcomes, as well as the actual moves, such as those between levels, jobs, employers, occupations, and industries (Sullivan & Baruch, 2009). Besides, Sullivan and Baruch (2009) add in their research that careers are influenced by many contextual factors.

Career commitment, as defined by Blau (1985, p. 278), refers to "one's attitude towards one's profession or vocation". This definition has been widely cited in many studies (Chang, 1999; Goulet & Singh, 2002; Zhu et al. 2021). According to Lee et al. (2000), there has been a tendency in the commitment literature to use the terms profession, occupation, and career interchangeably. Professional commitment is often defined by "the strength of an individual's identification with and involvement in a profession" (Aranya et al., 1981). In a meta-analysis of occupational commitment (Lee et al., 2000, p. 80), occupational commitment is defined as "the psychological link between an individual and his/ her occupation that is based on an affective reaction to that occupation".

However, in the context of this study, 'profession' or 'occupation' is not used as a synonym for 'career', and career commitment is considered to be fundamentally different from other forms of commitment (Hall, 1971). Moreover, according to Klein et al. (2022) a person's career is a commitment target that is very interpretatively flexible and is frequently located where multiple subsystems intersect. Specifically, the term 'career' can refer to several things at the same time: a means of supporting one's employer or employing organization, a means of gaining status and professional competence, and a means of allowing one to provide for one's family. The definition of 'career' will vary based on the subsystem that is in use at the time (Klein et al., 2022). 'Work role-focused' (e.g. organization, supervisor, colleagues) and 'other profession-focused' (e.g. colleagues in other organizations, association of the profession) are examples of commitment subsystems (Klein et al., 2022). Hence, this study adopts a more recent definition of career commitment by Zhu et al. (2021, p. 506) which refers to career commitment as "an individual's attitudes toward his/her vocation, or an individual's willingness to keep membership in an occupational field, or an emotional linkage between an individual and his or her vocation".

As mentioned earlier, this study uses Klein et al. 's (2012) definition of 'commitment', thus career commitment refers to a volitional psychological bond reflecting dedication and responsibility to a career.

### 2.3 Career commitment and Organizational commitment

As mentioned in 2.1, according to the CST, the various targets of commitment are never independent and always interact with each other (Klein et al., 2022). The CST also states that these targets need to be balanced (if a commitment goal asks too much, it cannot be met). This section discusses what other literature suggests about the relationship between career commitment and organizational commitment.

The historical discourse surrounding the relationship between organizational commitment and career commitment initially underscored a perceived conflict between the two, positing that individuals devoted to advancing their careers might exhibit diminished allegiance to their employing organizations. This viewpoint was articulated in historically important works such as those by Blau and Scott (1962), Scott (1966), and Kornhauser (1996), which suggested that career-oriented professionals prioritized their profession's principles over organizational loyalty.

However, Hall (1986) countered this perspective by suggesting that commitment to the career and the organization are not necessarily incompatible, contingent upon the extent to which the employer fulfilled the individual's professional aspirations. Subsequent research, including that by Wallace (1993) and Aranya and Ferris (1984), offered nuanced insights into this relationship. While Wallace (1993) provides evidence of a positive relationship between career and organizational commitment, questions persisted regarding which commitment predominates among professionals in organizations and which one is more relevant for organizationally desirable outcomes. Aranya and Ferris (1984) further highlighted this positive relationship but stressed that such relationship is higher in professional organizations, meaning that there is more synergy between professional and organizational commitment among professional workers. Recent investigations, such as those by Goulet and Singh (2002) and Ahmed (2017), have corroborated the interconnectedness of job satisfaction, organizational commitment, and career commitment.

Accordingly, Lapointe et al. (2019) introduced the concept of commitment to organizational career (COC), defining it as “individuals’ commitment to the goal of pursuing a long and successful career in an organization” (Lapointe et al., 2019, p. 898). Although COC is not exactly the same as career commitment, it does have some similarities, so it is important to name this theory now that it talks about the relationship between career commitment and organizational commitment. Their findings indicated that COC inversely correlated with turnover intention, indicating that when COC is high, employees are less inclined to contemplate quitting and are less prone to actually resign from the organization. Moreover, COC exhibited positive associations with organization-based self-esteem, supervisory career mentoring, and organizational support for development. While distinct from traditional career commitment, COC underscores the prioritization of career advancement within the organizational context (Lapointe et al., 2019).

Zhu et al. (2021) further elucidated the alignment between career commitment and organizational commitment, supporting the argument that these constructs can relate and evolve concurrently. These findings align with prior meta-analytic studies on work commitment by Brown (1996), Lee et al. (2000), and Mathieu and Zajac (1990), reinforcing Hall's (1971) distinction of career commitment. They suggest that while conflicts between career and employer allegiance may arise, career commitment, job involvement, and organizational commitment can coexist and evolve concurrently, influenced by shared workplace experiences (Lee et al., 2000; Mathieu & Zajac, 1990; Zhu et al., 2021). Concurrently, Afsar et al. (2019) provided empirical evidence supporting the compatibility and complementarity of organizational and career commitment, affirming the positive influence of career commitment on organizational commitment and organizational citizenship behavior.

In sum, contemporary research challenges the notion of inherent conflict between organizational and career commitment, instead highlighting their potential for synergy and mutual reinforcement. Moreover, there are always interactions between commitments, as known from CST, and in this study a positive relationship is expected, as previous research generally suggests it as well. This results in the following hypothesis:

*Hypothesis 1:* Employees’ commitment to their career is positively related to employees’ commitment to the organization.

## 2.4 The moderating role of Career opportunities

As noted above, according to the CST, commitments do not stand alone. However, the commitment system also changes and takes shape based on the context (Klein et al., 2022). Interactions between two commitment targets can be either positive, negative, or neutral, depending on the context (Klein et al., 2022). In this case, the organizational context. As mentioned before, research has shown that context is critical in shaping how individuals understand and conceptualize workplace commitment (Wasti et al., 2016). This section discusses the context in which the organization offers or does not offer career opportunities to its employees and its effect on the relationship between career and organizational commitment. To explain how context drives this relationship, SET is used.

Perceived career opportunity (PCO) is defined by Kraimer et al. (2011, p. 486) as “employees’ belief that jobs or positions that match their career goals and interests exist within the organization”. More recent research explains organizational career development as “an employee's perception of the opportunities for development and advancement within his or her current organization” (Weer & Greenhaus, 2020, p. 281). This definition is used for career opportunities in this study. According to Kraimer et al. (2011), there are two main types of antecedents to organizational support for development (OSD): the participation of employees in formal development activities offered by the organization, and senior managers' informal experiences of good developmental relationships (such as career mentoring and leader-member exchanges). In fact, career opportunities are one of the employment conditions which constitute a working resource at the level of the organization (Van Veldhoven et al., 2015). In this study, the role of career opportunities is approached from the perspective of SET.

SET is used in this study because social exchange is the most common reason people commit, according to Klein et al. (2021). In addition, most research is grounded in SET (Van Rossenberg et al., 2018; Van Rossenberg et al., 2022). This suggests that social exchange is still a relevant mechanism. In this study SET is used in combination with CST, which views commitment as an interconnected system, with SET as a driver of (the formation) of commitment systems. This means that CST acknowledges that context is essential to comprehending how commitments are coupled (conflict or synergy) (Klein et al., 2022), but it does not explain how it causes commitment targets to interact in specific ways under different circumstances. This is where SET comes in. SET explains how contextual drivers, in this thesis

career opportunities, affect the relationship between career commitment and organizational commitment.

This perspective of commitment as a reciprocal process is further supported by Van Rossenberg et al.'s (2018) research, which provides insight into commitment as part of social exchange. SET perceives the employment relationship as a dynamic exchange where outcomes are evaluated against inputs, forming the basis of interaction between the organization and its employees (Van Rossenberg et al., 2018). Unlike a purely rational or transactional approach, SET incorporates emotional investment and attachment fostered by social inducements like mutual support and care. Consequently, as employees feel supported and valued, commitment may ensue as part of a reciprocal process (Van Rossenberg et al., 2018).

The results of Kraimer et al. (2011) suggested that for perceptions of career opportunities to improve performance and reduce the risk of turnover, employees' perceptions of organizational support for development (OSD) were necessary. The main discovery of Kraimer et al.'s (2011) research is that when considering employees' views on OSD alongside their perception of career opportunities (PCO), there is a noteworthy impact on both job performance and turnover. Additionally, this demonstrated that when employees perceive numerous appealing career opportunities within the organization, OSD leads to increased job performance and reduced turnover rates. Since organizational commitment is considered as a primary driver of turnover (Griffeth et al., 2000), this finding is relevant for this study.

Building on the social exchange theory, previous research has shown that factors such as perceived organizational support, opportunities for career growth, and an ethical work environment not only influence employees' organizational commitment (Weng et al., 2010), but also impact their commitment to their career (Weng & McElroy, 2012). Therefore, factors related to the organization (such as pay, opportunities for career growth, and organizational justice) are expected to play a significant role in predicting career commitment. Existing research also suggests that training and development provision is perceived by employees as an indication that their organization is interested in engaging in a social exchange with them (Newman et al., 2011). This fosters a robust psychological connection between employees and their employer (Newman et al., 2011). Employees expect their employer to provide training and development opportunities in exchange for organizational commitment (Bartlett, 2001). Consequently, training, like other HR practices, can be used to make employees more committed to the organization (Bartlett, 2001).

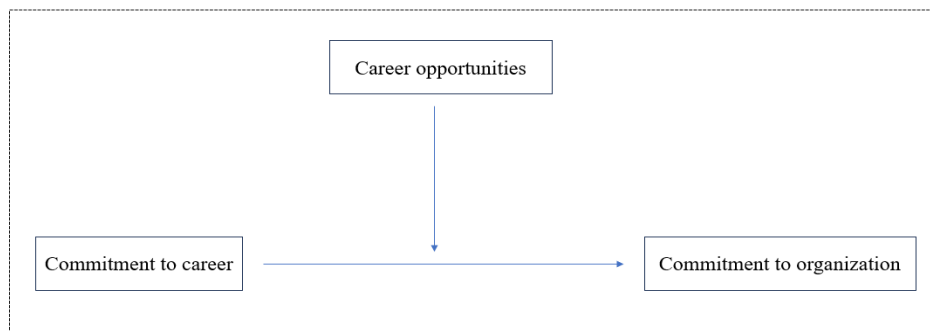
Another relevant study is that of Chang (1999), which also examined the relationship between career-related practices and organizational commitment but introduced the moderating role of career commitment. The results of Chang's (1999) research show that affective commitment is predicted by perception of internal promotion, company-provided training, and supervisory support in the career. Results indicated that while affective commitment was predicted by perceptions of internal promotion, company-provided training, and supervisory support, career commitment only moderated the relationship between supervisory support and affective commitment (Chang, 1999). This suggests that career commitment does not strongly moderate the relationship between an organization's career-related practices and organizational commitment in general. However, it is questionable how reliable Chang's results are, as the sample size is small and includes only one vocation, and it is not recent.

In summary, career commitment and organizational commitment are interrelated. Using arguments from CST, this relationship takes into account the temporal dynamics and context of this commitment system (Klein et al., 2022). In addition, based on SET, which explains the relationships and dynamics in the workplace, much research has been done in the context of organizational commitment. It is expected that when there is this reciprocal exchange, that is, when employers provide career opportunities, employees will want to reciprocate, resulting in a positive effect on the relationship between career commitment and organizational commitment. Furthermore, from the CST perspective, the interaction between career and organizational commitment will be positive if the organization provides career opportunities to its employees. This leads to the second hypothesis:

*Hypothesis 2: Career opportunities within the organization positively moderates the positive relationship between employees' commitment to their career and employees' commitment to the organization so that the positive relationship is stronger when employees perceive higher career opportunities.*

## Figure 1

*Conceptual model in this study*



The variable career opportunities is expected to positively moderate the relationship between commitment to career and commitment to organization. The main relationship between career commitment and organizational commitment is also expected to be positive.

### 3. Method

This study aims to gain insight into the relation between commitment to the career, career opportunities within the organization, and commitment to the organization. First, the overall approach and strategy for answering the research question will be described in this chapter. After that, this chapter explains the research design and data collection procedure, sample, measurement, and the analytical strategy. The chapter ends with an elaboration on the ethical considerations and the methodological limitation.

#### 3.1 Research Approach and Strategy

To comprehend how the gathered data is interpreted and handled in this study, an explanation of the selected philosophical approach, positivism, is presented. This necessitates a distinction in both ontology and epistemology. In this study, an objectivist stance was adopted for both perspectives. Namely, the study assumed the existence of an objective world independent of the subjective perceptions of the researcher. From an epistemological point of view, the objective world was considered to be objectively measurable. Such objectivistic stances on ontology and epistemology are in line with the philosophical approach of positivism (Guba & Lincoln, 1994). Positivism utilizes the hypothetico-deductive method to test a priori hypotheses typically expressed in quantitative terms (Park et al., 2019). This approach allows for the derivation of functional relationships between causal and explanatory factors (independent variables) and outcomes (dependent variables). For such a paradigmatic stance, it is suitable to empirically test theory-driven hypotheses, which implies a deductive approach of the research. Applied to this study, adopting a positivistic approach entails regarding the concepts of career, organizational commitment, and career opportunities were viewed as objectively existing phenomena that were measured using theory-driven, previously validated questionnaire measures. Because positivism often relies on quantitative methods (Park et al., 2019), and here the goal is to quantitatively express individual perceptions of career and organizational commitment, as well as perceived career opportunities, a questionnaire is the chosen data collection technique. To summarize, positivism, quantitative research and the questionnaire instrument are highly congruent and perfectly suited to the research question and objective.

### 3.2 Research design and data collection procedure

In order to achieve the research objective, the study used a time-lag questionnaire-based design. A cross-sectional design was not chosen because it involves the simultaneous measurement of variables (Williams et al., 2021). Therefore, albeit this is still a non-experimental correlational study, a two-point time-lag design was used to determine causality as accurately as possible. Namely, career commitment is measured before organizational commitment.

As a source of data, the study used secondary data by analyzing an existing dataset. The data were collected as part of the Healthy Brain Study (HBS), a cohort study investigating both laboratory and real-world conditions (Aarts et al., 2021). The data collection of the HBS took place between 2019 and 2023, but the preparations of the study already started in 2017. The dataset encompasses numerous variables, including commitment and job characteristics such as career opportunities. The aim of this cohort study was to monitor changes in human brain function that may be influenced not only by seasonal variations, but also by relevant life events and changes in biological, social and environmental factors (Aarts et al., 2021).

An advantage of secondary data is that the dataset often contains large numbers of respondents and can therefore allow more complex, interesting, and robust analyses (Williams et al., 2021). Another advantage of secondary data is data quality (Williams et al., 2021). The data was collected through different data collection methods, but for this study only online questionnaires were used to measure the variables. Questionnaires are an appropriate data collection method for this study, as Marshall (2005) states that questionnaires are a cost-effective way of collecting data from large numbers of people. If planned carefully, questionnaires can provide high quality information, achieve good response rates, and provide anonymity, which often leads to more honest responses than interviews (Marshall, 2005).

### 3.3 Sample

The HBS has studied a population-based sample with a target of 1,000 (500 men, 500 women) healthy people (aged 30-39 years), of whom 220 have a low, 340 a middle, and 430 a high level of education (Aarts et al., 2021). 905 participants were included at the start of the study, and in total 724 participants have completed the entire study. The inclusion criteria of the respondents are: people in their thirties, living in the Nijmegen region, willingness, and ability to follow the

study protocol. The HBS also formulated exclusion criteria. These criteria are: not speaking, reading, and understanding the Dutch language, having a history of significant psychiatric or neurological disorders in the past, a current disease that affects the brain, a current medication that is therapeutically targeted at the brain, being pregnant, having a contra-indication for MRI, contra-indication for the ‘submaximal Åstrand cycle test’, and contra-indication for the ‘cold pressor test’. The reasons for withdrawal in the cohort study are usually because they were too burdened, became pregnant or received a diagnosis or drug treatment during the year, which are exclusion criteria in this study (Aarts et al., 2021). Another important inclusion criterion for this study is that the participants have a paid job and are therefore employees. This resulted in a total of 455 participants, which is still quite a large sample size. Of this sample size, 38.9% are male and 61.1% are female, not the perfect balance the HBS researchers wanted, but a reasonable one. Looking at the level of education, most of the participants attended HBO; higher professional education (46.8%) or WO; academic education (30.1%). That means the vast majority are highly educated which is also a sample characteristic that needs to be considered when interpreting the study results and making implications for the general population.

The HBS selected people in their thirties because their brains have finished developing and aging has not started yet. This age group often faces major life events like career changes, burnout, buying a home, having children, or going through a divorce, which can affect their well-being, according to Aarts et al. (2021). The reason respondents must be able to understand Dutch at B1 level is that it is necessary to participate in the study protocol, for example to fill in questionnaires (Aarts et al., 2021). By taking into account an appropriate balance of gender and educational level, the sample becomes more representative, which is important for the generation of results. The choice of the Nijmegen area is due to the fact that Nijmegen is a medium-sized city in the Netherlands (Aarts et al., 2021).

The sample used in this study was carefully selected using population-based sampling, to accurately represent the target population and to generalize to the population of interest. With a large sample size and attention to the characteristics of the population, the results are likely to apply well to the wider population. While there may be some limitations, the overall quality of the sample gives confidence that valuable lessons can be drawn for the wider population.

### 3.4 Measurement

Each variable and its measurement methodology are covered in detail in the section that follows.

*Career and Organizational Commitment.* In the HBS data a one-item scale is used for commitment which matches with The Klein Unidimensional Target (KUT) measure (Klein et al., 2014). The HBS data contains five targets of commitment, i.e., the organization I work for, my supervisor, my colleagues, my career, my profession/occupation, and my partner/family/friends. By measuring commitment to multiple targets, the KUT allows for fair comparison (Van Rossenberg et al., 2022). The targets that are applicable and that are used in this study are: career and organizational commitment. Each target is measured by only one of the four elements per target. The item is stated: “At this moment, I am committed to ...[target]”. Hence in the current study, each commitment is measured with one item with the corresponding commitment target being either career or organization. Each item is measured by a seven-point Likert-scale answers ranging from ‘not at all’ (0) to ‘completely’ (6). This study measured career commitment at the first time point and organizational commitment at the second time point.

*Career opportunities.* Career opportunities are measured by one out of three items of the Questionnaire on the Experience and Evaluation of Work (QEEW2.0). QEEW2.0 is a questionnaire that contains 42 items that represent short scales for assessing different job characteristics, including career opportunities (Van Veldhoven et al., 2015). The item measured is stated: “My prospects for promotion in my job are poor”. The item is measured by a five-point scale ranging from 0 (completely agree) to 4 (completely disagree).

#### 3.4.1 Control variables

Control variables are used in this study because they are necessary to ensure generalizability (Becker, 2005). The analysis controls for gender (sex), educational level, contract type, working hours, and changed job in the analyses predicting commitment to the organization.

First, the reason that gender could be relevant is because in several studies demographic characteristics play a role, such as in the research of Aydin et al. (2011) about the commitment of teachers. This study states that there is an effect of gender on the organizational commitment,

which is in favor of males (Aydin et al., 2011). Gender is measured by a nominal scale and contains two categories: male (1) and female (2). Second, educational level is also included as a control variable, because educational background is a strong influential factor on organizational commitment (Keramati et al., 2013). This variable is measured by the highest level of education a person has attended (with or without diploma or certificate). The item is measured on an eight-point ordinal scale with the following response options: 0 (did not receive any education), 1 (primary education), 2 (VMBO), 3 (HAVO/VWO), 4 (MBO), 5 (HBO), 6 (WO), and 7 (other). Third, contract type is included. This item is used by a nominal scale and has two categories: permanent (0) and temporary (1). In their study, Cappelli and Keller (2013) discuss the changing nature of work and the existence of boundaryless work and temporary work. This could be relevant to career and organizational commitment, which is why it is included as a control variable. Fourth, working hours is included, because mismatches in working hours could be particularly important for maintaining affective commitment (Van Emmerik & Sanders, 2005). The measure of this item is numeric, so participants could report the number of work hours per week. The final control variable is whether participants have changed jobs. Changing jobs or even organizations could affect an employee's commitment to the organization they work for. This effect takes time. Therefore, a measurement later than time one is selected. This variable is measured at the second time point and has a nominal scale with the options Same job/position as previously (1) and New job/position (2). The second time point is chosen as a control variable, because this sample is bigger than the third time point of this variable.

### 3.5 Analytical strategy

The data was analyzed using SPSS, which is a quantitative data analysis software. In order to test the hypotheses, the data of the HBS was first cleaned, and missing data analysis was conducted. Data cleaning encompasses the verification of variables and codes for accuracy, along with the identification and resolution of any irregularities such as response patterns within the dataset (Hair et al., 2018). Additionally, missing data analysis involves examining the nature and significance of missing data, deciding if it can be ignored, and measuring how much data is missing for specific variables (Hair et al., 2018).

To provide an answer to the research question, a regression analysis was used to analyze the data and to test the hypotheses. According to Hair et al. (2018), the regression analysis is

the most often used dependence technique, which is applicable to research questions involving prediction or explanation. In this study, multiple linear regression and moderation analyses are used. The first hypothesis involves a direct effect of an independent variable on a dependent variable. The second hypothesis involves two independent variables and their interaction in affecting a single dependent variable, requiring moderation analysis.

### 3.6 Ethical considerations and Data management

HBS is approved by The Institutional Review Board of Radboud University Medical Center in 2019 (Aarts et al., 2021). The HBS has stored the data on a web application for personal and logistical data, which is called Ldot, as a tool to communicate with the participants of the study. Besides, the HBS used Castor EDC for data acquisition. According to Aarts et al. (2021), Ldot and Castor EDC are compliant with the requirements of the European General Data Protection Regulation. Besides, the participation in the HBS study took place on a voluntary basis (Aarts et al., 2021). These ethical considerations were done by the researchers involved in the HBS. After the thesis defense this dataset will be registered to Research Information Services (RIS). RIS for students is a secured system that can be used to register publications, register datasets, and write data management plans, to which only the student and supervisors have access to (Radboud University, n.d.). This is in line with the data requirements of the Healthy Brain Study.

## 4. Results

In this chapter, the results of the analyses are presented. First, the results of the preliminary analyses are presented. This includes the descriptive statistics and correlations of the variables. After that the assumptions of the regression analysis are discussed. Finally, the results of the regression analysis are presented, and the hypotheses are tested.

### 4.1 Preliminary Analyses

#### 4.1.1 Descriptive statistics

In Table 1, the descriptive statistics, the Mean ( $M$ ) and Standard Deviation ( $SD$ ) of the variables, are presented.

With a percentage of 61.1%, there are more female respondents than male. Looking at the level of education, most of the respondents are highly educated ( $M=5.05$ ,  $SD=0.850$ ). There is also a majority of respondents with a permanent contract (79.1%) as opposed to a temporary contract (20.9%). On average, respondents work 33.42 hours per week ( $M=33.42$ ,  $SD= 6.986$ ). Looking at the last control variable, the vast majority of the respondents (70.5%) have the same job/position at the second time point as previously. This makes an employee's answer about commitment to the organization they work for more reliable.

The respondents have an average score for career commitment ( $M=3.93$ ,  $SD=1.16$ ), considering that the seven-point Likert scale ranges from 0 (not at all) to 6 (completely), and the mean score is roughly in the middle of that range. In addition, respondents were quite positive about career opportunities ( $M=1.92$ ,  $SD=1.18$ ) when considering a five-point scale ranging from 0 (completely agree) to 4 (completely disagree), because this item asked whether your prospects for promotion in your job are poor, i.e., a higher number indicates good prospects for advancement. Finally, respondents at the second time point (T2) averaged high scores on organizational commitment ( $M=4.18$ ,  $SD=1.12$ ), which has the same seven-point Likert scale as career commitment.

The skewness and kurtosis statistics for the independent and dependent variables are within a range of +/- 3 score (Table A1), which means that the variables can be assumed to be normally distributed. The kurtosis of Working Hours and Changedjob is greater than 3, which

means that they have a too peaked distribution. As these are control variables, this does not have a major impact on the results, but it will be considered in the interpretation.

**Table 1**

*Means, standard deviations, and correlations of study variables*

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Sex	1.61	0.49	-							
2. Education	5.05	0.84	.093	-						
3. Contract	0.21	0.41	.054	.099	-					
4. Whours	33.11	7.27	-	.128*	-	-				
			.307**		.148**					
5. ChangedJobT2	1.10	0.30	-.090*	.117*	.023	.040	-			
6. CareerComm	3.93	1.16	.087	.120*	.024	.162**	.065	-		
7. CareerOpp	1.92	1.18	-.114*	.033	-.044	.216**	-.013	.313**	-	
8. OrgCommT2	4.18	1.12	.113*	.022	-.090	.093	.085	.348**	.204**	-

*Note.* \* $p < .05$ , \*\* $p < .01$ .  $N=349$ .

#### 4.1.2 Correlations

To interpret the correlation between two variables, the correlation matrix needs to be examined (Table 1). The rule of thumb to determine the size of significance of correlations, is that the size of a correlation ( $r$ ) is small ( $.1 < |r| < .3$ ), medium ( $.3 < |r| < .5$ ), or large ( $.5 < |r| < 1$ ) (Cohen, 1988).

In this study, the size of most of the correlations is small. The correlations between career commitment and career opportunities ( $r=.313$ ,  $p < .001$ ), and career commitment and organizational commitment ( $r=.348$ ,  $p < .001$ ) are positive and can be described as medium effect size. Sex and working hours ( $r=-.307$ ,  $p < .001$ ) are negatively correlated and have a medium effect size. This means that females work significantly less hours than male. Another important correlation in this study, is the relationship between career opportunities and organizational commitment ( $r=.204$ ,  $p < .001$ ) with a small effect size.

### 4.1.3 Assumptions of Multiple Regression Analysis

Several assumptions need to be evaluated before conducting a multiple regression analysis. The SPSS-output of these assumptions can be seen in Appendix A.

The first assumption is to check the linearity of the relationship between independent and dependent variables. Linearity is examined through scatter plots. This involves plotting the residuals versus the independent variables. According to Hair et al. (2018), the overall equation is linear if there is no nonlinear pattern to the residuals visible in the residual plot. No clear patterns can be observed (Figure A1), suggesting that the model can be regarded as linear.

Second, the scatterplot is used to assess whether the residuals have a constant variance. In the scatterplot (Figure A1), it is clear that the residuals are constant over the entire range of the independent variable, which means that there is homoscedasticity (Hair et al., 2018), so this assumption is also met because there is no unequal variance.

Third, a normality histogram of residuals and normal probability plots (p-plot) are used to check the normality of the error term distribution. In the p-plot it is observed that the residual line closely follows the diagonal, so the distribution is normal (Figure A3). Moreover, the histogram shows that the standardized residuals are normally distributed (Figure A2).

The last assumption is about the independence of residuals. This can best be identified by plotting the residuals against any potential grouping or sequencing variable. It is observed that the pattern appears random and similar to the null plot of residuals (Figure A3). Additionally, most of the VIF values confirm that there is no multicollinearity present in the regression analysis, as these VIF values are around 1, and all tolerance values were above .25 (Hair et al., 2018; Table A2). However, the higher VIF value of career opportunities is 11.11, so not below the threshold of 10, which indicates a possible multicollinearity issue. The high VIF for the interaction term is expected due to its composition from two variables. Because the focus of this study is on the interaction and main effects, and because interaction terms often inflate VIF values without necessarily invalidating the model, the analysis proceeds with these considerations in mind.

Although not all assumptions are perfectly met, the model is considered appropriate for the purposes of this study.

## 4.2 Hypotheses Testing

Since the assumptions for the multiple regression analysis were largely fulfilled, the results can be interpreted and applied to test the two primary hypotheses of this study. Hierarchical linear regression was conducted in multiple steps, where organizational commitment was regressed on the control variables (Model 1), the independent variable (Model 2), and the moderating variable along with the interaction term (Model 3). A summary of all regression results for models with organizational commitment as the dependent variable is provided in Table 2.

**Table 2**

*Results of the regression analysis predicting Organizational commitment*

Predicting variables	B	SE	$\beta$	t	p	VIF
1						
(Constant)	2.61	.53		4.89	<.001	
Sex	.38	.13	.17	2.98	.003	1.14
Education	-.02	.07	-.01	-0.25	.801	1.07
Contract	-.23	.15	-.08	-1.50	.134	1.04
Whours	.13	.09	.10	2.29	.023	1.16
ChangedJobT2	.37	.20	.10	1.85	.065	1.03
2						
(Constant)	2.16	.51		4.25	<.001	
Sex	.27	.12	.12	2.22	.027	1.16
Education	-.05	.07	-.04	-0.71	.478	1.07
Contract	-.26	.14	-.09	-1.83	.068	1.04
Whours	.01	.01	.06	1.17	.244	1.21
ChangedJobT2	.29	.19	.08	1.56	.121	1.03
CareerComm	.31	.05	.33	6.40	<.001	1.06
3						
(Constant)	2.66	.55		4.79	<.001	
Sex	.32	.12	.14	2.63	.009	1.18
Education	-.06	.07	-.04	-0.85	.397	1.08
Contract	-.25	.14	-.09	-1.77	.077	1.04
Whours	.01	.01	.06	1.08	.279	1.24
ChangedJobT2	.31	.19	.08	1.68	.094	1.03
CareerComm	.12	.08	.13	1.51	.131	3.07

CareerOpp	-0.25	.16	-0.26	-1.58	.114	11.11
Interaction_ CareerComm*CareerOpp	.09	.04	.47	2.41	.017	15.50

Notes. N= 349. Dependent variable: Organizational commitment (T2). B = unstandardized regression coefficient. SE = standard error,  $\beta$  = standardized Coefficients Beta, VIF = variance inflation factor.

#### 4.2.1 Relationship Career Commitment and Organizational Commitment

Model 2 (Table 2) shows that the only control variable that remains significant after introducing the independent variable (CareerComm) is sex. This means that sex is relevant in the relationship between career commitment and organizational commitment. Other control variables are not significant in Model 2 and are therefore less relevant than previously thought. In addition, Model 2 shows a positive and significant effect of career commitment ( $\beta=.33$ ,  $p<.001$ ). Furthermore, the explanatory power of Model 2 improved significantly ( $\Delta R^2 = .148$ ,  $p<.001$ ) with the addition of the independent variable career commitment. This indicates that the model, which incorporates career commitment and control variables, accounts for a significant 14.8% of the variance in organizational commitment. This indicates a positive relationship between career commitment and organizational commitment. Thus, statistical support was found for the first hypothesis of this study.

#### 4.2.2 The moderating effect of Career Opportunities

Model 3 (Table 2) suggests that career opportunities are associated with a decrease in organizational commitment. However, the p-value ( $p=.114$ ) is not significant at the 5% level. This means that no conclusions can be drawn about this direct effect.

Conversely, the results in Model 3 show a positive and significant effect ( $\beta=.47$ ,  $p=.017$ ) of the interaction term (CareerComm\*CareerOpp). Furthermore, the R-squared of the final model ( $\Delta R^2 = .174$ ,  $p = .006$ ) is significant and improves on the R-squared of Model 2. This means that 17.4% of the variance in organizational commitment is explained by the proposed model. Moreover, the significant interaction term indicates that the interaction between career commitment and career opportunities is significantly related to a moderate increase in organizational commitment. Thus, the second hypothesis of this study was also statistically supported.

**Table 3***Conditional Effects of Career Opportunities*

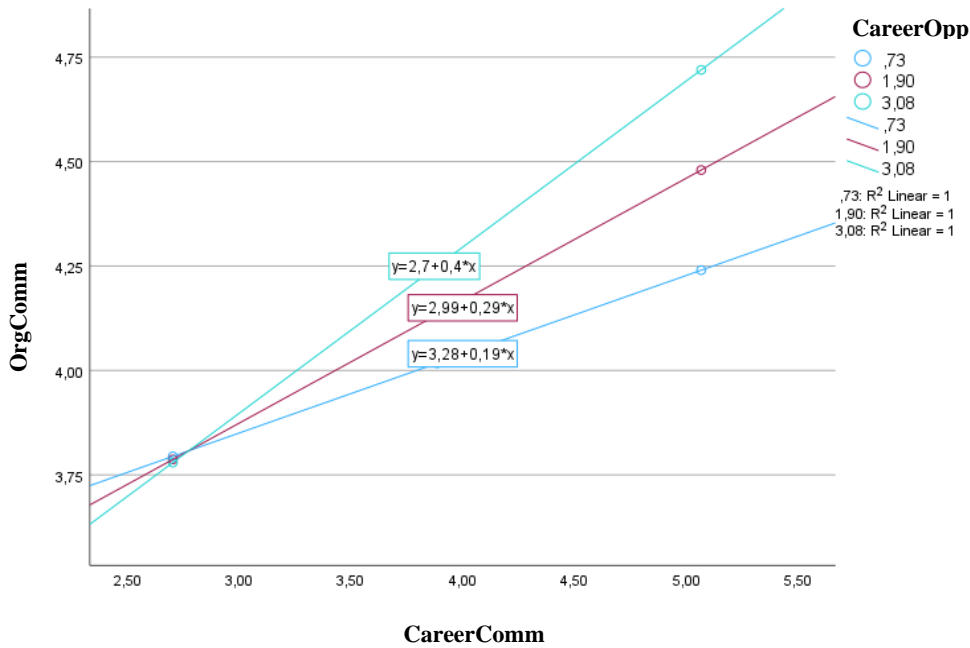
Conditional effect of CareerComm (X) on OrgComm (Y) at levels of CareerOpp (M)				
CareerOpp (M)	Effect	SE	t	p
0.7297	.19	.06	3.01	.003
1.9026	.29	.05	5.78	.000
3.0754	.40	.07	5.62	.000

*Note.* Conditioning values are  $-1SD$ , Mean,  $+1SD$ .

To provide further interpretation of the significant interaction, the interaction was probed. This positive and significant effect can also be seen in Table 3. This table shows that the effect of career commitment on organizational commitment depends on the moderator's Career opportunities. At higher values of Career opportunities ( $+1SD$ ), the effect of career commitment on organizational commitment (.40) is still significant ( $p < .001$ ), while at the lower level of Career opportunities ( $-1SD$ ) this effect decreases (.19) although it remains significant ( $p < .001$ ). So, the positive relationship between career commitment and organizational commitment gets stronger when employees are more content with the career opportunities they get. These results can be represented visually using a graph illustrating the interaction effects in Figure 2 below. This visualization aligns with the regression results, showing a stronger effect of the interaction at higher values of Career opportunities (The green line at the top represents  $+1SD$ ).

**Figure 2**

*Scatterplot of the Interaction of Career Commitment and Career opportunities on Organizational Commitment*



Note.  $-1SD = .73$ ,  $M = 1.90$ ,  $+1SD = 3.08$ .

### 4.3 Exploring the role of sex

Given that sex emerged as the only significant control variable in the initial regression analysis, its potential moderating effect on the relationship between career commitment and organizational commitment is further explored. To this end, separate moderation analyses were conducted for males and females to examine whether the interplay between career commitment, perceived career opportunities, and organizational commitment differs based on sex.

The separate moderation analyses reveal subtle differences between males and females in how career opportunities influence the relationship between career and organizational commitment. For men, the interaction is not significant at the 5% level ( $p = .181$ ). In contrast, for females, the interaction has a positive and significant effect ( $\beta = .616$ ,  $p = .020$ ) on organizational commitment. This finding suggests that career opportunities have a stronger impact on the relationship between career and organizational commitment for female employees than for male employees.

## 5. Discussion

This chapter provides an interpretation of the findings of this study, in the context of the research questions and existing literature. The primary objective of this research was to give insight into the relationship between career commitment and organizational commitment and the role of career opportunities as a moderator. The results offer important insights into this relationship, which will be discussed in relation to the theoretical framework and prior studies. This chapter therefore addresses the theoretical implications, outlines several limitations of the study, suggests directions for future research, and considers practical implications of the results.

### 5.1 Theoretical implications

This research provides insight into the relationship between two distinct targets of commitment: career commitment and organizational commitment. A positive relationship was found between these two targets of commitment, supporting the study's initial hypothesis. This finding suggests that individuals who are highly committed to their careers tend to demonstrate stronger commitment to their organizations as well. This aligns with findings from other literature (Aranya & Ferris, 1984; Goulet & Singh, 2002; Ahmed, 2017; Zhu et al., 2021), which also acknowledge the positive relationship between career commitment and organizational commitment.

However, the literature also suggests that the relationship between career and organizational commitment depends on the extent to which the employer meets the individual's career aspirations (Hall, 1986). Furthermore, Lapointe et al. (2019) emphasize the prioritization of career advancement within the organizational context. This is consistent with CST, as this theory states that commitment targets are related, but the relationship depends on the context (Klein et al., 2022). The results of the second hypothesis test support such result, showing that career opportunities within the organization positively moderates the positive relationship between employees' career commitment and employees' organizational commitment. Further analysis showed that this moderating effect was more pronounced for female employees than for male employees. Career opportunities have not been examined as a moderator of this relationship in other literature. This finding indicates that context (specific career opportunities) plays a role in the relationship between the two commitment targets. By that, this research extends the literature on CST. It also supports the logic of SET because SET assumes that when

there is this reciprocal exchange, i.e., when employers provide career opportunities, there is a positive effect on the relationship between career commitment and organizational commitment. In addition to the findings of the relationships uncovered, this is the first study to combine CST as a framework with SET as a contextual driver in the study of commitment.

This study addresses an important gap in the literature by integrating the often separate domains of commitment literature and career literature, which have typically been studied independently. In doing so, it provides a more comprehensive understanding of how these two forms of commitment (career and organizational) interact in the workplace.

Despite calls for research on multiple commitment targets (van Rossenberg et al., 2022), few studies have examined their interaction. This study responds to this need and to Klein et al.'s (2022) concerns about the limitations of isolated commitment research. By examining when career and organizational commitments conflict or synergize and how they affect employee behavior, this research advances our understanding of multiple commitment dynamics and addresses important theoretical gaps. To build on this, this study calls for further research on the interaction between several other commitment targets (e.g., supervisor, colleagues, profession/occupation, and partner/family/friends), as Klein et al. (2022) states that there is no single commitment target due to their interconnectedness within a system.

## 5.2 Limitations and future research

This study has several limitations. The first methodological limitation of this study is that this study uses only secondary data, which means that the researcher has no involvement or control in the data collection process and must rely entirely on the adequacy and integrity of the HBS process.

Second, a methodological limitation of this study is the time-lag design. It may be more useful to have data over time, because a theory of social exchange can also take time. Unfortunately, this is not possible to do in this study because of the variables involved. The variable career opportunities has, in comparison to many other measured variables in the HBS, only been measured once (Aarts et al., 2021). Future longitudinal studies are needed to address these limitations and to better understand how career and organizational commitment evolve, especially in response to changes in career opportunities or organizational contexts.

Third, the sample is drawn from one geographic region of the country (Nijmegen), which limits the diversity of the sample. This has consequences for generalizing the results to the population. Besides, the HBS participants do not fully represent the population of Nijmegen, as non-Dutch speakers are excluded from the sample. The sample also includes a majority of highly educated participants in their thirties, so it is not fully representative of the population.

Fourth, career opportunities were measured with one item of the QEEW2.0 scale, which states that career opportunities has three items (SKB, 2014). Instead, the HBS researchers measured it with only one item about promotion prospects. There are other forms of career opportunities in addition to promotion prospects, so that is a limitation of the data because it cannot provide insight into these other aspects. In addition, although the HBS initially stated it would use the KUT measure for commitment, in the data, there is only one measured question per commitment target, and that is quite limited. The KUT measure is based on four elements per target (Van Rossenberg et al., 2022). Consequently, factor and reliability analyses were not conducted for these variables. The researcher had no control over changing this for this study. Therefore, future studies should measure career opportunities and targets of commitment more comprehensively.

Another limitation is that this study uses regression as a statistical analysis. The variables involved in this study are of ordinal measurement level. However, the condition for performing a regression analysis is that both the dependent and independent variables are metric (Hair et al., 2018). Although Hair et al. (2018) generally prefer to use appropriate techniques for the level of measurement of the data, they acknowledge that treating Likert scales as interval variables in linear regression models is a common practice in many research fields. Two of the variables are measured with a seven-point Likert-scale and one by a five point-scale.

Interesting directions for future research emerged from this research. As careers increasingly take place outside the organization (Van Rossenberg et al., 2018), the findings align with and contribute to this broader trend in the modern workplace. Organizational commitment examines cross-boundary work, and career literature discusses cross-boundary careers. This is where future research can evolve by integrating cross-boundary work and careers. This is an opportunity to close the gap between them. Even more than this study has done. Further research could explore how trends like freelancing, and hybrid work arrangements impact the traditional relationship between career commitment and organizational commitment.

Furthermore, the significant findings regarding the relationship between career and organizational commitment in this study provide valuable insight into the existing gap between careers and commitment literature. In today's workplace, employees develop commitments to multiple targets, and balancing these commitments has become increasingly common (Klein et al., 2022). This highlights the importance of future research exploring additional relationships among these various commitment targets. Additionally, other moderators (e.g., other employment conditions like certainty about the future and remuneration or other forms of vitality, work-job demands, and work-resources) from QEEW2.0 (Van Veldhoven et al., 2015) could be examined to better understand their influence on these relationships in different (work) contexts. Using CST as a framework could offer a deeper understanding of how these targets function as interconnected parts of larger systems (Klein et al., 2022).

In addition, this study found that career opportunities have a stronger impact on the relationship between career and organizational commitment for female employees. Since there is support for this, although not hypothesized, but this study did not explore exactly where men and women differ, and due to the apparent lack of agreement in the literature on the relationship between gender and commitment (Metcalf & Dick, 2002), it is recommended that future research explore gender differences in this relationship. This will allow HR to provide attractive career opportunities for both men and women to strengthen the relationship between career and organizational commitment.

Finally, future research could use a cross-cultural approach to compare the relationships between career and organizational commitment in different cultural contexts. This could be accomplished by conducting a more in-depth study across multiple countries, for example, using mixed methods. This would help to identify universal versus culture-specific patterns in how these commitments interact. This recommendation arises from the fact that the data in this study were collected in only one region of the Netherlands.

### 5.3 Practical implications

This study also has practical implications.

Given the positive relationship between career commitment and organizational commitment and the positive role of career opportunities in this relationship, organizations should actively invest in developing clear and accessible career paths for employees. This involves offering

career development plans, such as continuous learning opportunities, promotion prospects with vertical as well as horizontal career moves that align with employees' career aspirations. Van der Sluis and Poell (2003) found empirical evidence to support the idea that a work environment that provides more learning opportunities positively influences how individuals perceive their career development. Furthermore, the possibility of promotion is a key aspect of career advancement (Carmeli et al., 2007). In addition to vertical advancement to the top of the organization, consider horizontal career paths where individuals can broaden their experience and advance by moving laterally (Moraveck, 2013). It is therefore important for HR managers to provide these career opportunities and to make the path to advancement within an organization more visible to and with employees so that it is better aligned with their career aspirations and influences their organizational commitment.

By providing these career opportunities, employers can not only strengthen employees' commitment to their careers but also enhance their loyalty to the organization, thereby reducing turnover, which is especially crucial in a tight labor market. Moreover, by fostering a reciprocal relationship where employees feel that their career development is being valued and supported, organizations can enhance both career and organizational commitment. It is also important that employers are aware of the organizational context in which career opportunities are (or are not) provided. This means being conscious of the specific needs and circumstances of their employees and tailoring career opportunities initiatives to meet these needs.

For HR professionals it is recommended to integrate career development plans into their standard HR practices. This integration will help align individual career goals with organizational goals, creating a more committed and motivated workforce.

## **6. Conclusion**

This study examined the extent to which perceived career opportunities within an organization moderate the relationship between employees' commitment to their careers and their commitment to the organization. The results indicate that perceived career opportunities play a moderate, significant, and positive moderating role in this relationship. When employees perceive sufficient career opportunities, the relationship between their career commitment and organizational commitment is stronger. However, without this moderator, there is still a positive relationship between career and organizational commitment, but it is less pronounced. This suggests that organizations that provide career opportunities strengthen the relationship between employees' commitment to their careers and their commitment to the organization, and thus are more likely to have employees who are highly committed to their organization.

## Reference list

- Aarts, E., Akkerman, A., Altgassen, M., Bartels, R., Beckers, D., Bevelander, K., Bijleveld, E., Davidson, E.B., Boleij, A., Bralten, J., Cillessen, T., Claassen, J., Cools, R., Cornelissen, I., Dresler, M., Eijsvogels, T., Faber, M., Fernández, G., Figner, B., ... Willemsen, A. (2021). Protocol of the Healthy Brain Study: An accessible resource for understanding the human brain and how it dynamically and individually operates in its bio-social context. *PLoS ONE* 16(12). <https://doi.org/10.1371/journal.pone.0260952>
- Afsar, B., Umrani, W.A., & Khan, A. (2019). The impact of perceived calling on work outcomes in a nursing context: The role of career commitment and living one's calling. *Journal of Applied Biobehavioral Research*, 24(1), 1-18. <https://doi.org/10.1111/jabr.12154>
- Ahmed, N. O. A. (2017). Career commitment: the role of self-efficacy, career satisfaction and organizational commitment. *World Journal of Entrepreneurship, Management and Sustainable Development*, 5(1). <https://doi.org/10.1108/WJEMSD-06-2017-0038>
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18. <https://doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Aranya, N., & Ferris, K. R. (1984). A reexamination of accountants' organizational-professional conflict. *Accounting review*, 59(1), 1-15.
- Aranya, N., Pollock, J., & Amernic, J. (1981). An examination of professional commitment in public accounting. *Accounting, Organizations and Society*, 6(4), 271-80. [https://doi.org/10.1016/0361-3682\(81\)90007-6](https://doi.org/10.1016/0361-3682(81)90007-6)
- Aryee, S., & Tan, K. (1992). Antecedents and outcomes of career commitment. *Journal of vocational behavior*, 40(3), 288-305. [https://doi.org/10.1016/0001-8791\(92\)90052-2](https://doi.org/10.1016/0001-8791(92)90052-2)
- Aydin, A., Sarier, Y., & Uysal, S. (2011). The effect of gender on organizational commitment of teachers: A meta analytic analysis. *Educational Sciences: Theory & Practice*, 11(2), 628-632.
- Bartlett, K. R. (2001). The Relationship between training and organizational commitment: A study in the health care field. *Human Resource Development Quarterly*, 12(4), 335-352. <https://doi.org/10.1002/hrdq.1001>

- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8(3), 274-289.  
<https://doi.org/10.1177/1094428105278021>
- Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58(4), 277-288.  
<https://doi.org/10.1111/j.2044-8325.1985.tb00201.x>
- Blau, P., & Scott, R. (1962). *Formal organizations*. Chandler.
- Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behavior*, 49(3), 230-251.  
<http://doi.org/10.1006/jvbe.1996.0042>
- Cappelli, P., & Keller, J. R. (2013). Classifying work in the new economy. *Academy of Management Review*, 38(4), 575-596. <http://dx.doi.org/10.5465/amr.2011.0302>
- Carmeli, A., Shalom, R., & Weisberg, J. (2007). Considerations in organizational career advancement: what really matters. *Personnel Review*, 36(2), 190-205.  
<https://doi.org/10.1108/00483480710726109>
- Chang, E. (1999). Career commitment as a complex moderator of organizational commitment and turnover intention. *Human Relations*, 52(10), 1257-1278.  
<https://doi.org/10.1177/001872679905201002>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). NY: Psychology.
- Crotty, M. (1998). *The foundation of social research: Meaning and perspective in the research process*. Sage.
- Davis, P. J. (2015). Implementing an employee career-development strategy: How to build commitment and retain employees. *Human Resource Management International Digest*, 23(4), 28-32. <https://doi.org/10.1108/HRMID-05-2015-0066>
- Demirtas, S. C., & Tezer, E. (2012). Romantic relationship satisfaction, commitment to career choices and subjective well-being. *Social and Behavioral Sciences*, 46, 2542-2549.  
<https://doi.org/10.1016/j.sbspro.2012.05.519>

- Dewi, R. S., & Nurhayati, M. (2021). The effect of career development on turnover intention with job satisfaction and organizational commitment as mediators, Study at PT Control Systems Arena Para Nusa. *European Journal of Business and Management Research*, 6(4), 11-18. <https://doi.org/10.24018/ejbmr.2021.6.4.918>
- European Labour Authority. (2023, November 14). *Persistent labour shortages in Europe: latest insights from the ESDE report*. Retrieved February 7, 2024, from <https://www.ela.europa.eu/en/news-event/newsroom/persistent-labour-shortages-europe-latest-insights-esde-report>
- Goulet, L. R., & Singh, P. (2002). Career commitment: A reexamination and an extension. *Journal of Vocational Behavior*, 61(1), 73-91. <https://doi.org/doi:10.1006/jvbe.2001.1844>
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488. <https://doi.org/10.1177/014920630002600305>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In: Denzin, N. K., & Lincoln, Y.S. (Eds.). *Handbook of Qualitative Research* (pp. 105-117). Sage.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. Tatham, R. I. (2018). *Multivariate data analysis*. Pearson Education International.
- Hall, D. T. (1971). A theoretical model of career subidentity development in organizational settings. *Organizational Behaviour and Human Performance*, 6(1), 50-76. [https://doi.org/10.1016/0030-5073\(71\)90005-5](https://doi.org/10.1016/0030-5073(71)90005-5)
- Hall, R. (1986). Professionalism and bureaucratization. *American Sociological Review*, 33, 92-104.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606. <https://doi.org/10.1086/222355>
- Keramati, M. A., Horri, M. S., & Afzalipoor, S. H. R. (2013). A study on effects of personal characteristics on organizational commitment. *Management Science Letters*, 3(1), 345-350. <https://doi.org/10.5267/j.msl.2012.10.021>

- Klein, H. J., Brinsfield, C., & Cooper, J. T. (2021). The experience of commitment in the contemporary workplace: An exploratory re-examination of commitment model antecedents. *Human Resource Management, 60*(6), 885-902.  
<https://doi.org/10.1002/hrm.22040>
- Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, target-free approach. *Journal of Applied Psychology, 99*(2), 222-238. <https://doi.org/10.1037/a0034751>
- Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012). Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *The Academy of Management Review, 37*(1), 130-151.  
<https://doi.org/10.5465/amr.2010.0018>
- Klein, H. J., Solinger, O. N., & Dufлот, V. (2022). Commitment system theory: The evolving structure of commitments to multiple targets. *Academy of Management Review, 47*(1), 116-138. <https://doi.org/10.5465/amr.2018.0031>
- Kornhauser, W. (1966). The interdependence of professions and organizations. In H. Vollmer & D. Mills (Eds.), *Professionalism*. Prentice-Hall.
- Kraimer, M. L., Seibert, S. E., Wayne, S. J., & Liden, R. C. (2011). Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *Journal of Applied Psychology, 96*(3), 485-500.  
<https://doi.org/10.1037/a0021452>
- Kuvaas, B., Shore, L. M., Buch, R., & Dysvik, A. (2017). Social and economic exchange relationships and performance contingency: Differential effects of variable pay and base pay. *The International Journal of Human Resource Management, 31*(3), 408-431. <https://doi.org/10.1080/09585192.2017.1350734>
- Lapointe, É., Vandenberghe, C., Mignonac, K., Panaccio, A., Schwarz, G., Richebé, N., & Roussel, P. (2019). Development and validation of a commitment to organizational career scale: At the crossroads of individuals' career aspirations and organizations' needs. *Journal of Occupational and Organizational Psychology, 92*(4), 897-930.  
<https://doi.org/10.1111/joop.12273897>

- Lee, K., Carswell, J. J., & Allen, N. J. (2000). A meta-analytic review of occupational commitment: Relations with person- and work-related variables. *Journal of Applied Psychology, 85*(5), 799-811. <https://doi.org/IOA037//0021-9010.85.5.799>
- Marshall, G. (2005). The purpose, design and administration of a questionnaire for data collection. *Radiography, 11*(2), 131-136. <https://doi.org/10.1016/j.radi.2004.09.002>
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*(2), 171-194. <https://doi.org/10.1037/0033-2909.108.2.171>
- Metcalf, B., & Dick, G. (2002). Is the force with her? Gender and commitment in the police. *Women in Management Review, 17*(8), 392-403. <https://doi.org/10.1108/09649420210451823>
- Meyer, J. P. (2009). Commitment in a changing world of work. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations: Accumulated wisdom and new directions* (pp. 37-68). Routledge.
- Moraveck, C. (2013). The career path and working within the organization. In *Unmasking Project Management* (pp. 169-182). Palgrave Macmillan. Retrieved October 1, 2024, from [https://link.springer.com/content/pdf/10.1057/9781137356260\\_7?pdf=chapter+toc](https://link.springer.com/content/pdf/10.1057/9781137356260_7?pdf=chapter+toc)
- Mueller, C. W., Wallace, J. E., & Price, J. L. (1992). Employee commitment: Resolving some issues. *Work and occupations, 19*(3), 211-236.
- Newman, A., Thanacoody, R., & Hui, W. (2011). The impact of employee perceptions of training on organizational commitment and turnover intentions: a study of multinationals in the Chinese service sector. *The International Journal of Human Resource Management, 22*(8), 1765-1787, <https://doi.org/10.1080/09585192.2011.565667>
- Park, Y. S., Konge, L., & Artino, A. R. (2019). The Positivism paradigm of research. *Academic Medicine, 95*(5), 690-694. <https://doi.org/10.1097/ACM.0000000000003093>
- Radboud University. (n.d.). *Research Information Services*. Retrieved July 30, 2024, from <https://www.ru.nl/research-information-services/>

- Scott, W. R. (1966). Professionals in bureaucracies - Areas of conflict. In H. Vollmer & D. Mills (Eds.), *Professionalism*. Prentice-Hall.
- SKB (2014). Specimen VBBA2.0. *Vragenlijst Beleving en Beoordeling van de Arbeid*.
- Solinger, O. N., van Olffen, W., & Roe, R. A. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology*, 93(1), 70-83.  
<https://doi.org/10.1037/0021-9010.93.1.70>
- Somers, M., Birnbaum, D., & Casal, J. (2020). An empirical test of conceptual arguments to retire the three-component model of work commitment: Implications for commitment research. *Personnel Review*, 49(3), 887-902. <https://doi.org/10.1108/PR-05-2019-0246>
- Stazyk, E. C., Pandey, S. K., & Wright, B. E. (2011). Understanding affective organizational commitment: The importance of institutional context. *The American Review of Public Administration*, 41(6), 603-624. <https://doi.org/10.1177/0275074011398119>
- Sullivan, S. E., & Baruch, Y. (2009). Advances in career theory and research: A critical review and agenda for future exploration. *Journal of Management*, 35(6), 1542-1571. <https://doi.org/10.1177/0149206309350082>
- UWV. (2023, January 23). *In Nederland heeft een kleine Great Resignation plaatsgevonden*. Retrieved April 16, 2024, from <https://www.uwv.nl/nl/persberichten/in-nederland-heeft-een-kleine-great-resignation-plaatsgevonden>
- Van Emmerik, I. J. H., & Sanders, K. (2005). Mismatch in working hours and affective commitment differential relationships for distinct employee groups. *Journal of Managerial Psychology*, 20(8), 712-726. <https://doi.org/10.1108/02683940510631462>
- Van der Sluis, L. E. C., & Poell, R. F. (2003). The impact on career development of learning opportunities and learning behavior at work. *Human Resource Development Quarterly*, 14(2), 159-179. <https://doi.org/10.1002/hrdq.1058>
- Van Rossenberg, Y. G. T., Cross, D., & Swart, J. (2022). An HRM perspective on workplace commitment: Reconnecting in concept, measurement and methodology. *Human Resource Management Review*, 32(4). <https://doi.org/10.1016/j.hrmr.2021.100891>
- Van Rossenberg, Y. G. T., Klein, H. J., Asplund, K., Bentein, K., Breitsohl, H., Cohen, A., Cross, D., de Aguiar Rodrigues, A. C. Dufлот, V., Kilroy, S., Ali, N., Rapti, A., Ruhle, S., Solinger, O., Swart, J., & Yalabik, Z. Y. (2018). The future of workplace commitment: Key questions and directions. *European Journal of Work and*

- Organizational Psychology*, 27(2), 153-167.  
<https://doi.org/10.1080/1359432X.2018.1443914>
- Van Veldhoven, M., Prins, J., van der Laken, P., & Dijkstra, L. (2015). *QEEW2.0: 42 short scales for survey research on work, well-being and performance*. SKB.
- Wallace, J. E. (1993). Professional and organizational commitment: compatible or incompatible?. *Journal of vocational behavior*, 42(3), 333-349.
- Wasti, S. A., Peterson, M. F., Breitsohl, H., Cohen, A., Jørgensen, F., de Aguiar Rodrigues, A. C., ... & Xu, X. (2016). Location, location, location: Contextualizing workplace commitment. *Journal of Organizational Behavior*, 37(4), 613-632.  
<https://doi.org/10.1002/job.2094>
- Weer, C. H., & Greenhaus, J. H. (2020). Managers' assessments of employees' organizational career growth opportunities: The role of extra-role performance, work engagement, and perceived organizational commitment. *Journal of Career Development*, 47(3), 280-295. <https://doi.org/10.1177/0894845317714892>
- Weng, Q., & McElroy, J. C. (2012). Organizational career growth, affective occupational commitment and turnover intentions. *Journal of Vocational Behavior*, 80(2), 256-265. <https://doi.org/10.1016/j.jvb.2012.01.014>
- Weng, Q., McElroy, J. C., Morrow, P. C., & Liu, R. (2010). The relationship between career growth and organizational commitment. *Journal of Vocational Behavior*, 77(3), 391-400. <https://doi.org/10.1016/j.jvb.2010.05.003>
- Williams, M., Wiggins, R., & Vogt, P. R. (2021). *Beginning Quantitative Research*. Sage.  
<https://doi.org/10.4135/9781529682809>
- Zhu, D., Kim, P. B., Milne, S., & Park, I.J. (2021). A meta-analysis of the antecedents of career commitment. *Journal of Career Assessment*, 29(3), 502-524.  
<https://doi.org/10.1177/1069072720956983>

## Appendix A

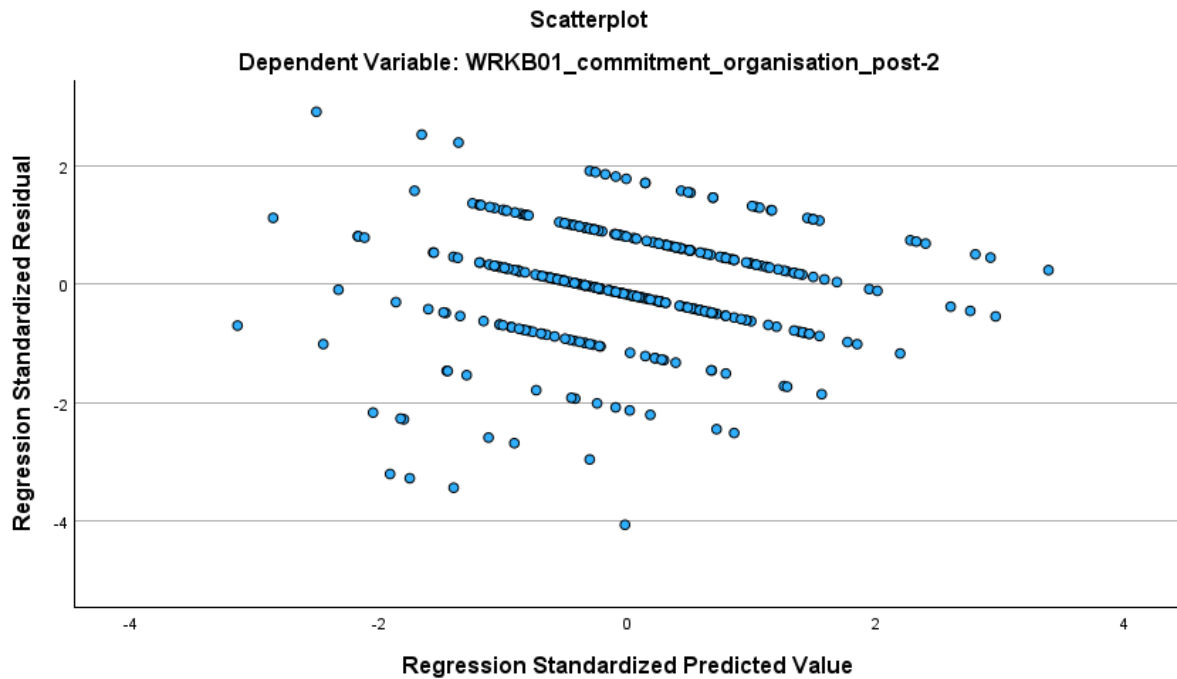
**Table A1**

*Descriptive statistics, including Skewness and Kurtosis of variables*

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Sex	455	1	2	1,61	,488	-,457	,114	-1,799	,228
EDU_REC	442	2	6	5,05	,841	-,917	,116	1,252	,232
contract	455	0	1	,21	,407	1,438	,114	,067	,228
whours WRKA03_employment_ho urs_post-1	455	0	60	33,11	7,272	-1,369	,114	3,956	,228
chanjob1 WRKC01_changed_jobs_ post-2	356	1	2	1,10	,298	2,710	,129	5,372	,258
commcareer WRKB04_commitment_car eer_post-1	455	0	6	3,93	1,159	-,537	,114	,546	,228
promot WRKC53_poor_promotion _prospects_post-1	453	0	4	1,92	1,179	-,077	,115	-,847	,229
orgcommT2 WRKB01_commitment_or ganisation_post-2	356	0	6	4,18	1,117	-,926	,129	1,834	,258
Valid N (listwise)	349								

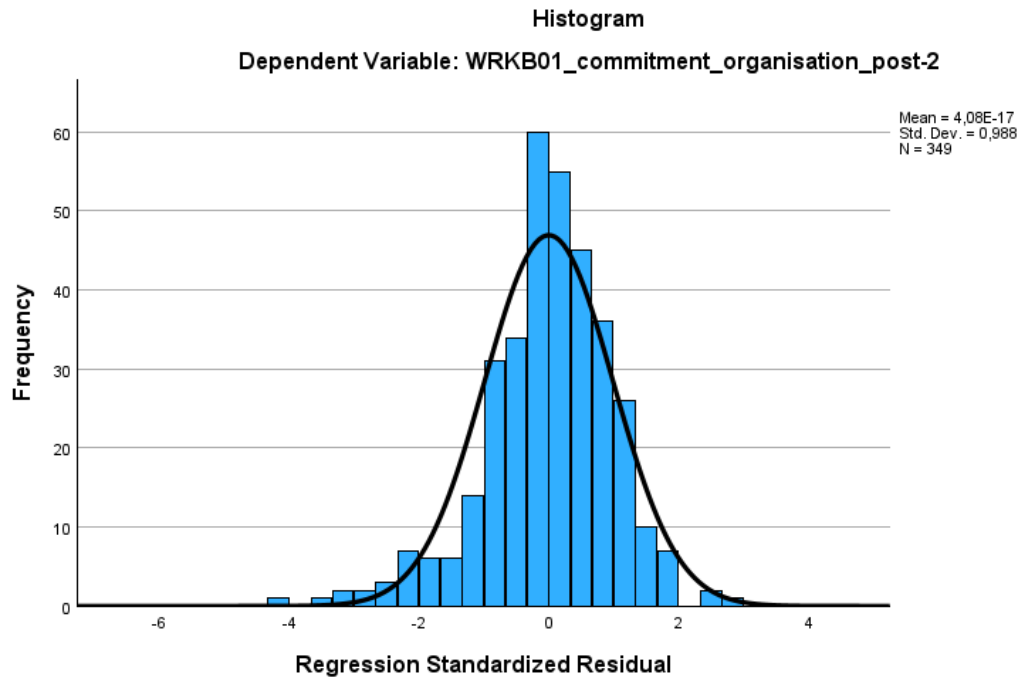
**Figure A1**

*Scatterplot of the standardized predicted values and standardized residuals*



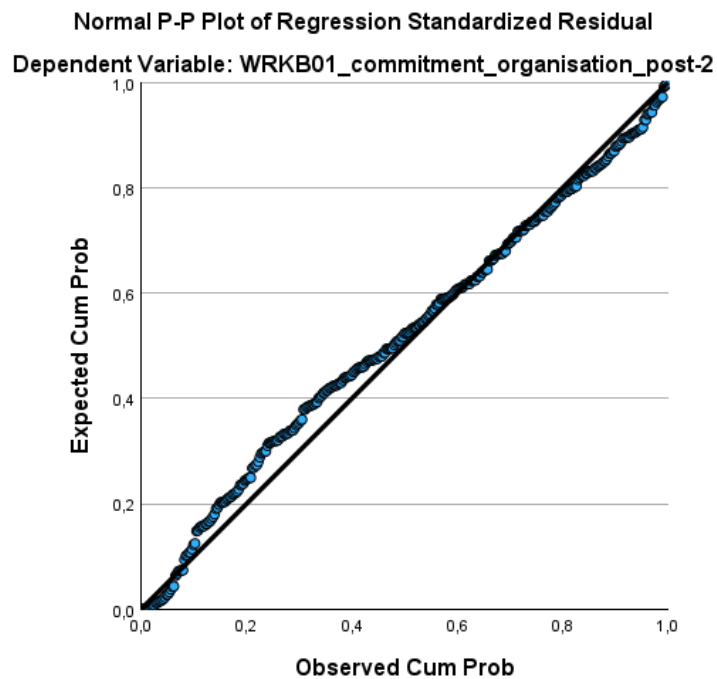
**Figure A2**

*Histogram of the standardized residuals*



**Figure A3**

*Normal P-Plot*



**Table A2**

*Collinearity statistics*

		Coefficients <sup>a</sup>					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	2,607	,533		4,893	<,001		
	Sex	,379	,127	,167	2,975	,003	,879	1,138
	EDU_REC	-,018	,072	-,014	-,253	,801	,936	1,069
	contract	-,225	,150	-,081	-1,503	,134	,964	1,038
	whours WRKA03_employment_ho urs_post-1	,021	,009	,130	2,287	,023	,859	1,164
	chanjob1 WRKC01_changed_jobs_ post-2	,367	,198	,099	1,851	,065	,976	1,025
2	(Constant)	2,164	,509		4,253	<,001		
	Sex	,271	,122	,119	2,221	,027	,862	1,160
	EDU_REC	-,048	,068	-,037	-,710	,478	,931	1,074
	contract	-,260	,142	-,093	-1,833	,068	,962	1,039
	whours WRKA03_employment_ho urs_post-1	,010	,009	,064	1,167	,244	,828	1,207
	chanjob1 WRKC01_changed_jobs_ post-2	,292	,188	,079	1,556	,121	,972	1,029
commcareer WRKB04_commitment_car eer_post-1	,311	,049	,329	6,404	<,001	,942	1,062	
3	(Constant)	2,633	,550		4,786	<,001		
	Sex	,320	,121	,141	2,633	,009	,848	1,180
	EDU_REC	-,057	,067	-,043	-,849	,397	,928	1,077
	contract	-,248	,140	-,089	-1,774	,077	,961	1,040
	whours WRKA03_employment_ho urs_post-1	,009	,009	,059	1,084	,279	,809	1,236
	chanjob1 WRKC01_changed_jobs_ post-2	,312	,186	,084	1,681	,094	,970	1,031
	commcareer WRKB04_commitment_car eer_post-1	,124	,082	,131	1,513	,131	,326	3,072
	promot WRKC53_poor_promotion _prospects_post-1	-,248	,156	-,260	-1,584	,114	,090	11,107
	InteractionTerm	,089	,037	,467	2,409	,017	,065	15,498

a. Dependent Variable: orgcommT2 WRKB01\_commitment\_organisation\_post-2

**Table A3***Separate regression analysis for male*

		Coefficients <sup>a,b</sup>					Collinearity Statistics	
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	Tolerance	VIF
1	(Constant)	1,456	,913		1,594	,113		
	EDU_REC	,112	,122	,077	,920	,359	,933	1,072
	contract	-,406	,288	-,120	-1,408	,162	,893	1,120
	hours WRKA03_employment_ho urs_post-1	,051	,016	,265	3,163	,002	,933	1,072
	chanjob1 WRKC01_changed_jobs_ post-2	,224	,308	,059	,727	,469	,981	1,019
2	(Constant)	1,371	,861		1,594	,113		
	EDU_REC	,043	,116	,029	,369	,713	,915	1,093
	contract	-,571	,274	-,169	-2,082	,039	,876	1,142
	hours WRKA03_employment_ho urs_post-1	,027	,016	,142	1,690	,093	,824	1,213
	chanjob1 WRKC01_changed_jobs_ post-2	,223	,290	,059	,769	,443	,981	1,019
	commcareer WRKB04_commitment_car eer_post-1	,347	,081	,353	4,309	<,001	,864	1,157
3	(Constant)	1,710	,897		1,907	,059		
	EDU_REC	,050	,116	,034	,432	,666	,907	1,103
	contract	-,555	,273	-,164	-2,029	,044	,874	1,145
	hours WRKA03_employment_ho urs_post-1	,028	,016	,145	1,709	,090	,799	1,251
	chanjob1 WRKC01_changed_jobs_ post-2	,264	,290	,070	,910	,364	,975	1,026
	commcareer WRKB04_commitment_car eer_post-1	,165	,139	,167	1,186	,238	,287	3,479
	promot WRKC53_poor_promotion _prospects_post-1	-,221	,261	-,206	-,844	,400	,096	10,381
	InteractionTerm	,084	,062	,399	1,345	,181	,065	15,370

a. Sex = 1 male

b. Dependent Variable: orgcommT2 WRKB01\_commitment\_organisation\_post-2

**Table A4***Separate regression analysis for female*

		Coefficients <sup>a,b</sup>					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	3,864	,509		7,591	<,001		
	EDU_REC	-,033	,088	-,028	-,371	,711	,862	1,161
	contract	-,108	,163	-,046	-,663	,508	,994	1,006
	hours WRKA03_employment_ho urs_post-1	-,001	,011	-,010	-,129	,898	,865	1,156
	chanjob1 WRKC01_changed_jobs_ post-2	,602	,254	,166	2,366	,019	,978	1,023
2	(Constant)	3,194	,516		6,192	<,001		
	EDU_REC	-,047	,085	-,040	-,551	,582	,860	1,163
	contract	-,091	,157	-,039	-,576	,566	,993	1,007
	hours WRKA03_employment_ho urs_post-1	-,005	,011	-,033	-,452	,652	,860	1,163
	chanjob1 WRKC01_changed_jobs_ post-2	,453	,247	,125	1,831	,069	,957	1,045
commcareer WRKB04_commitment_car eer_post-1	,253	,061	,282	4,137	<,001	,963	1,038	
3	(Constant)	3,981	,615		6,469	<,001		
	EDU_REC	-,073	,085	-,062	-,865	,388	,836	1,195
	contract	-,083	,155	-,035	-,536	,592	,993	1,007
	hours WRKA03_employment_ho urs_post-1	-,005	,011	-,035	-,483	,630	,835	1,197
	chanjob1 WRKC01_changed_jobs_ post-2	,447	,244	,124	1,835	,068	,955	1,047
	commcareer WRKB04_commitment_car eer_post-1	,039	,100	,044	,390	,697	,346	2,887
	promot WRKC53_poor_promotion _prospects_post-1	-,324	,193	-,382	-1,684	,094	,084	11,892
	InteractionTerm	,106	,046	,616	2,337	,020	,062	16,036

a. Sex = 2 female

b. Dependent Variable: orgcommT2 WRKB01\_commitment\_organisation\_post-2