

Investigating job crafting from a prosocial perspective

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ABSTRACT

Prosocial and proactive behaviours among employees have been a central issue in the study of organizations in the past 30 years due to the considerable changes that have occurred within the world of work. In order to provide greater autonomy for work teams organizations have been implementing a flatter structure. The management style of supervisors has also changed as they increasingly rely on their workforce to be proactive and introduce changes to their jobs. In parallel with the focus on proactivity, the social and prosocial aspects of work have also received increased research attention. A shift from a manufacturing to a service economy resulted in a growing number of new working relationships, in which employees can express and experience prosocial behaviours. However, there has been very limited work on combining these two emerging areas. This PhD research aims to provide a significant contribution by investigating the fruitful integration of proactive and prosocial behaviours through examining a specific form of job crafting, namely Prosocial Job Crafting (PSJC). PSJC behaviours reflect the processes through which individuals modify their jobs' task, relational, and cognitive boundaries to allow them act in a manner that positively benefits the work and lives of colleagues and customers. The thesis includes three empirical studies. In the first two studies a new scale is developed and validated for the measurement of PSJC with two samples: sample one of 500 participants collected via Amazon Mturk, and sample two of 243 participants collected from academic libraries in the UK. The third empirical study describes the Structural Equation Modelling analysis of a conceptual model with a field sample of 262 participants from academic libraries in Hungary. Consistent with theoretical predictions, results show that task and cognitive prosocial job crafting were predicted by prosocial motivation, and task prosocial job crafting strongly and positively predicted self-report

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LIST OF ABBREVIATIONS

Amazon Mturk: Amazon Mechanical Turk
AVE: Average Variance Extracted
BTS: Bartlett's Test of Sphericity
CFA: Confirmatory Factor Analysis
CFI: Comparative Fit Index
CMB: Common Method Bias
CPSJC: Cognitive Prosocial Job Crafting
CR: Composite Reliability
DF: Degrees of freedom
EFA: Exploratory Factor Analysis
EM: Expectation maximization
GFI: The Goodness of Fit
IFI: Incremental Fit Index
JCE: Job Crafting Exercise
JCM: Job Characteristics Model
JCQ: Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013)
JCRQ: Job Crafting Questionnaire (Nielsen & Abildgaard, 2012)
JCS: Job Crafting Scale
JCT: Job Characteristics Theory
JR-D: Job Demands-Resources
KMO: Keiser-Meyer-Olkin
MCAR: Missing Completely At Random
ML: Maximum Likelihood
NFI: Normed Fit Index
OCB: Organizational Citizenship Behaviour
PCA: Principal Component Analysis
POB: Prosocial Organizational Behaviour
PSJC: Prosocial Job Crafting
PSJCM: Prosocial Job Crafting Measure
PSMOT: Prosocial motivation
RMSEA: Root Mean Square Error Approximation
RPSJC: Relational Prosocial Job Crafting
SD: Standard deviation
SEM: Structural Equation Modelling
SRMR: Standardized Root Mean Square Residual
T1: Time 1
T2: Time 2
TLI: Tucker Lewis Index
TPSJC: Task Prosocial Job Crafting

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INTRODUCTION

In this thesis I explore a specific form of job crafting, namely Prosocial Job Crafting. Job crafting is a relatively new concept that concerns the employee's role in customizing their job to better suit their individual needs and preferences. Wrzesniewski and Dutton (2001) define job crafting as "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (p. 179), and identified three dimensions of job crafting, namely task, relational, and cognitive crafting. My thesis extends the burgeoning job crafting literature by exploring the specific concept of Prosocial Job Crafting (PSJC), which is defined as the processes through which individuals modify their jobs' task, relational, and cognitive boundaries to allow them act in a manner that positively benefits the work and lives of colleagues and customers. Investigating PSJC is relevant as both qualitative and quantitative studies have shown that for many employees, making a positive difference in other people's lives is one of the main purpose of their work (Colby, Sippola, & Phelps, 2001; Ruiz-Quintanilla & England, 1996). Moreover, the motivation to make a prosocial difference is also a powerful driving force behind the employees' actions through increasing effort (Mitchell & Daniels, 2003), and persistence (Batson, Powell, Millon, & Lerner, 2003). Thus, increasing the opportunities to have a positive impact on others could be a crucial factor in establishing positive work meaning, work identities, and improved performance.

Prior to recognizing the importance and value of proactive workplace behaviours (such as job crafting) in organizations, the more traditional approaches to job design took a 'top down' approach. The advocacy of a top down view on job design (e.g., Babbage, 1835; Smith, 1850; Taylor, 1911) proposed job simplification and standardization as the best way for increasing productivity, and viewed employees as passive recipients of

orders, and being under the control of managers. However, this approach resulted in decreased employee satisfaction, increased turnover and absenteeism, difficulties in managing employees in simplified jobs (Hackman & Lawler, 1971), and counter-productive behaviours (Walker & Guest, 1952). As a response to these negative consequences of traditional job design, organizational scholars started to pay more attention to the motivational aspects of job design, and influential job design models took over the outdated views. Some of the most notable theories incorporating motivational factors were the Motivation-Hygiene Theory of Herzberg (1966), which proposed that jobs should be enlarged and enriched rather than simplified, and the Job Characteristics Theory (JCT) and Job Characteristics Model (JCM) by Hackman and Oldham (1974).

Although incorporating motivational factors in the design of jobs was a major step forward, models such as the JCM remained top-down in nature and failed to recognize the aspect of employee proactivity. However, recognizing the shortcomings of traditional views and the significant changes in the world of work (e.g., globalization, technological advancement, shift from a manufacturing to a knowledge and service focused economy), researchers have started to increasingly recognize the role that employees play in the design of their own jobs, focusing on the proactivity of their efforts. A number of influential proactive behaviour constructs emerged such as role innovation (Schein, 1971), voice (LePine & Van Dyne, 1998), and eventually job crafting (Wrzesniewski & Dutton, 2001), all self-starting, future-focussed, and change-oriented in nature.

In parallel with the focus on proactive workplace behaviours, researchers started to pay increased attention to the social attributes of job design that had been largely overlooked by the traditional job design theories. The shift to a service and knowledge economy resulted in an increased amount and variety of social interactions at the workplace, hence the social factors became a key focus of scholars. Moreover, one of the

consequences of rethinking business strategies was a paradigm shift from self-centeredness to interconnectedness, as businesses started to move away from self-interest to service and stewardship (Karakas, 2010). As an outcome of this trend, scholarly interest was directed to prosociality at work, which had been found to improve organizational, group, and individual effectiveness (Bailey, Madden, Alfes, & Fletcher, 2017). Consequently, a number of prosocial organizational behaviour (POB) constructs emerged, such as OCB (e.g., Organ, 1988), and mentoring (Allen, 2003). I propose that PSJC in addition to being a form of proactive organizational behaviour, is also a form of POB.

Despite the recognized significance of POBs, attention has only recently shifted towards investigating the role of job design and the work context in facilitating these positive outcomes resulting from prosocial motivation. Grant (2007) suggests that jobs that allow some room to make a prosocial difference might trigger job crafting behaviours. This is in line with some of the examples of job crafting outlined by Wrzesniewski and Dutton (2001), such as the example of hospital cleaners who crafted the aspect of patient interaction in their job to increase meaningfulness. However, this specific subset of job crafting behaviours led by the motivation to make a difference in others' lives has not yet been explored in detail. Wrzesniewski and Dutton (2001) proposed that in addition to control over the job, cultivating a positive self-image and the motivation to connect to others are important motivators behind job crafting. I propose, that in addition to these three facets, prosocial motivation is also an important motivator behind a subcategory of job crafting behaviours, namely PSJC.

Job crafting research has been relatively narrow to-date, and has not yet recognized the growing importance of prosocial behaviour and the fruitful combination of proactive and prosocial behaviours. Therefore, my thesis is addressing the lack of research in this

area, and provides a significant contribution to theory and literature. The examination of prosocial job crafting is particularly timely given the changes occurring within the economy, with an ever growing shift towards services, leaving organizations being ‘forced’ to meet the needs of their customers to succeed and survive (Oldham & Fried, 2016). The more frequent use of teams in a variety of industries resulted in a growing number of new working relationships, in which employees can express and experience prosocial behaviours. Moreover, in today’s uncertain job market, a significant percentage of people are likely to take on job roles that they did not necessarily desire, envisioned, and planned for, and PSJC can be an effective way to improve and create meaningfulness in a variety of jobs. Although, jobs can differ in the degree to which they offer room to make a positive difference (Grant, 2008b), McClelland, Leach, Clegg, and McGowan (2014) found that even with low levels of autonomy, individuals find ways to craft their jobs. My research investigates PSJC in the organizational setting of academic libraries. In this workplace setting, employees experience a variety of workplace relationships by working closely with each other, but also with their ‘customers’ (students, faculty). Due to the above noted reasons for the topic’s relevance and timeliness, I propose that there is a need to go beyond the traditional conceptualization of job crafting, and consider an exciting new concept investigating job crafting behaviours from a prosocial perspective.

The three empirical studies outlined in the thesis found support for PSJC occurring in a variety of jobs and organizational settings, and were able to demonstrate the construct’s proposed three dimensional structure, identifying a task, a relational, and a cognitive dimension. Out of the three dimensions, the task dimension returned the most promising results as this dimension demonstrated to be a strong predictor of both work engagement and performance. Next, I will briefly introduce the structure of my thesis and provide an overview of the chapters.

Chapter 2 of my thesis provides a review on job crafting research, and critically examines the most relevant theoretical and empirical studies pursuant to my research. As part of the review, Chapter 2 first provides a brief overview on the history of job design, focusing on the more traditional views. Next, Chapter 2 moves on to discuss the emerging proactive approach and concepts as a response to the limitations of the traditional approaches, followed by outlining the different conceptualizations of job crafting. In the last section of Chapter 2, I provide an up-to-date review of the existing job crafting literature, focusing on academic outputs that built on the conceptualization of Wrzesniewski and Dutton (2001).

Chapter 3 begins by introducing, defining, and discussing the key concept of my thesis, namely PSJC, and considers the concept as a form of POB in addition to being a form of job crafting. Chapter 3 also provides an overview of existing job crafting measures, and presents an argument for the need to develop a new measure to capture PSJC. Last, Chapter 3 outlines the theoretical framework of the research, and the development of nine hypotheses.

Chapter 4 presents the first two empirical studies of the thesis, namely Studies 1a and 1b. The aim of these studies was to develop and validate a new quantitative scale for measuring PSJC, namely the Prosocial Job Crafting Measure (PSJCM). As PSJC is a specific subset of job crafting behaviours that has not yet been investigated, there were no available scales for its measurement. The scale development process involved a number of steps, with both qualitative and quantitative phases, but an overall larger focus on the quantitative data collection and analysis. The analyses yielded promising results, and confirmed the three dimensional structure of the PSJCM, reflecting task (TPSJC), relational (RPSJC), and cognitive (CPSJC) forms of PSJC behaviours.

Chapter 5 details the next empirical study of my thesis (Study 2). The aim of this study was to test a conceptual model of PSJC, adapting a Structural Equation Modelling (SEM) approach. The conceptual model includes variables that were selected following careful theoretical considerations. Building on the definition of PSJC, prosocial motivation was chosen as the predictor of the three forms of PSJC behaviours. Performance was chosen as the proposed outcome of PSJC due to the variable's theoretical and practical relevance. Furthermore, two job characteristics variables (opportunity for prosocial impact and prosocial contact) were investigated to test their moderating effect on the relationships between prosocial motivation and the three forms of PSJC. All variables were measured with self-report measures, with the exception of supervisor ratings of performance. This was obtained by asking the supervisors to rate the individual level performance of their employees. Six structural models were tested in the SEM stage, and the best fitting model was used to assess the proposed nine hypotheses, theorizing relationships between the dimensions of PSJC and the antecedent, outcome, and moderator variables.

At last, **Chapter 6** discusses the findings of the three empirical studies in the light of existing literature, and provides insights into how my research enriches and enhances our knowledge and understanding of job crafting and POBs. Subsequently, the chapter outlines the theoretical and practical implications arising from the findings of the thesis, and ends by elaborating on the limitations of the research and putting forward recommendations for future research. Chapter 6 closes with a section on personal reflections, and brief concluding remarks.

CHAPTER 2: THE THEORETICAL BACKGROUND TO JOB CRAFTING

“Is there no inspiration in labor? Must the man who works go on forever in a deadly routine, fall into the habit of mechanical nothingness, and reap the reward of only so much drudgery and so much pay? I think not. The times demand an industrial prophet who will lift industry off from its rusted, medieval hinges and put pure human interest, and simple, free-spirited life into modern workmanship” (McChesney, 1917, pp. 176–177).

2.1. Chapter introduction

This chapter provides an overview of job crafting research, outlining the theoretical background to the key construct of my PhD thesis, highlighting the most influential theoretical and empirical studies. The purpose of this review is to introduce the research base underpinning job crafting, and the key theories and their limitations. I will first provide a brief overview on the history of job design, focusing on the more traditional views. Next, I move on to outline the emerging proactive approach to job design as a response to the drawbacks of traditional approaches, and to the changes in the world of work. Following, I discuss the theoretical background and the different conceptualizations of job crafting. At last, the chapter outlines a critical and up-to-date review of the relevant job crafting literature. In this review I mainly focus on academic outputs that conceptualized job crafting based on the original job crafting theory of Wrzesniewski and Dutton (2001). As it will be discussed in section 2.6.4., there is a ‘rival’ conceptualization of job crafting proposed by Tims and Bakker (2010), adapting the Job Demands-Resources Model (Bakker & Demerouti, 2007). Although a large number of the recent studies on job crafting adapted this new conceptualization, I argue that these

studies mainly provide insights into the Job Demands-Resources theory, but not into the job crafting theory of Wrzesniewski and Dutton (2001). As my PhD research aims to advance the original job crafting theory, the selection of relevant job crafting literature was guided by the job crafting framework used by the authors.

2.2. A brief overview on the history of job design

As Grant and Parker (2009, p. 3) noted, “we spend the majority of our waking hours working, and many organizational scholars have spent the majority of their waking hours trying to understand the trials and tribulations of work”. Work is an important aspect of life where one can establish relationships, develop self-identity and skills, and firm self-esteem (Pierce & Gardner, 2004). Therefore, the design of jobs has a great significance to organizational scholars, and organizations as well. As Oldham and Fried (2016, p.20) noted: “over the past fifty years, few topics in the organizational sciences have attracted as much attention as job design”. Job design focuses on the work itself, and refers to the ways “jobs, tasks, and roles are structured, enacted, and modified, as well as the impact of these structures, enactments, and modifications on individual, group, and organizational outcomes” (Grant & Parker, 2009, p.5). The main reason for this substantial amount of research attention is that job design has been shown to influence psychological outcomes such as work motivation, job satisfaction, work engagement, stress, and burnout (e.g., Parker & Wall, 1998), behavioural outcomes such as performance, productivity, turnover (e.g., Fried & Ferris, 1987), and physical outcomes such as blood pressure and heart disease (Ganster, Fox, & Dwyer, 2001; Melamed, Fried, & Froom, 2001) and cortisol levels (Fay & Hüttges, 2017).

Early works on job design (e.g., Babbage, 1835; Smith, 1850) argued that specifying and simplifying jobs to the most possible extent would allow employees to

devote their full attention to a very limited number of tasks. And in turn, this devoted attention was expected to result in improved employee productivity and efficiency. These early recommendations for job design focused mostly on cost reduction and on how to increase productivity with highly simplified and standardized operations (Taylor, 1911). In this top-down approach employees were viewed as passive recipients of orders, and being under the control of managers (Locke & Latham, 2002). Not surprisingly, this approach resulted in decreased employee satisfaction, increased turnover and absenteeism, difficulties in managing employees in simplified jobs (Hackman & Lawler, 1971), and counter-productive behaviours such as tardiness and productivity restriction (Walker & Guest, 1952).

With the aim of overcoming some of these negative consequences of traditional job design, researchers started to pay increased attention to the motivational aspects of job design (e.g., Vroom, 1964; Lawler & Porter, 1968; Hackman & Lawler, 1971). Many of these approaches adapted the Motivation-Hygiene Theory of Herzberg (1966), which proposed that jobs should be enlarged and enriched rather than simplified, with the aim of including 'motivators' in the job to enhance employee satisfaction, achievement, responsibility, and advancement (Oldham & Fried, 2016).

The Job Characteristics Theory (JCT) and Job Characteristics Model (JCM) by Hackman and Oldham (1976) became one of the most influential theories based on the motivational aspects of job design. The conceptual core of the theory built on the Expectancy Theory of motivation proposed by Vroom (1964) and Lawler and Porter (1968). The Expectancy Theory posits that employees rather than being motivated by receiving or avoiding the attention of a supervisor, and the potential of rewards, are in fact motivated by the positive feelings that result from performing well. Conversely, the negative feelings when not performing well. The JCM also adapted the pioneering

research on job characteristics by Turner and Lawrence (1965), especially the aspects of job autonomy and the amount of variety offered by jobs. The JCM proposes that five core job characteristics; skill variety, task identity, task significance, autonomy, and feedback from the job motivate individuals. Hackman and Oldham (1976) posit that these job characteristics fulfil three critical psychological states; experienced meaningfulness, experienced responsibility, and knowledge of results, and this in turn leads to improved job motivation, performance, and job satisfaction. Despite being a dominant model of job design, the JCM has received some criticism. Kelly (1992) argued that out of 25 studies that were testing JCM, only 12 could actually demonstrate that the five core characteristics result in improved performance. Moreover, the JCM was criticised for not considering the work context, and for including only a subset of the job characteristics that influence employees' experiences and behaviours.

Researchers now recognize that jobs not only vary in their core job characteristics, but also in physical characteristics such as the level of and type of physical demands, and the quality of work conditions. In addition, the JCT did not address the aspect of knowledge characteristics, and key factors such as problem-solving, job complexity, and information processing (Parker & Wall, 1998; Morgeson & Campion, 2003; Grant & Parker, 2009). Furthermore, other important aspects of work such as the social attribute of jobs have not been incorporated in the model (Oldham & Hackman, 2010). In spite of the criticism (e.g., Roberts & Glick, 1981), the JCM remained the dominant model for years, and it is still considered influential today, due to the range of behavioural and affective outcomes linked to the five job core characteristics (e.g., Fried & Ferris, 1987; Humphrey, Nahrgang, & Morgeson, 2007).

Rather independently from JCM, but with a time overlap between the two, another influential job design model emerged, namely the Job Demands-Control Model (Karasek,

1979). Karasek's model (1979) built on previous research on the influence of job design on strain and health (e.g., Whyte, 1948). The Job Demands-Control model addressed some of the shortcomings of motivational job design theories by incorporating the aspect of job demands in the theory (Parker, Morgeson, & Johns, 2017). The key prediction of Karasek's (1979) model is regarding the interaction between demands and control. The model posits "that control can buffer the negative effects of demands, and that strain will be greatest when demands are high and control is low" (Parker et al., 2017 p. 408). In a later study, Karasek and Theorell (1990) also acknowledged social support as being an additional corrective to job demands.

The Job Demands-Control model inspired an abundant number of studies, and research building on the model found a positive relationship between job demands and burnout and stress (Crawford, LePine, & Rich, 2010; Schaufeli & Taris, 2014). Moreover, a large volume of studies found evidence that stress can result in compromised physical health (e.g., Ganster & Rosen, 2013). Sonnentag and Zijlstra (2006) showed that excess job demands, or low control can impair health and well-being because they decrease the daily recovery experiences of employees. In a study looking at the effects of demands/control on health, Bond and Bunce (2003) found that employees who have higher levels of psychological flexibility can benefit the most from high levels of job control.

Furthermore, the model of Karasek (1979) inspired the influential model developed by Demerouti, Bakker, Nachreiner, and Schaufeli (2001), the Job Demands-Resources (JDR) Model. The JD-R advances the Job Demands-Control by considering further work features such as security and rewards in addition to control and social support, and recognizing their role in serving as job resources. Moreover, the model integrates both motivation and strain. The key feature of the model is regarding the

balance of job demands and resources, with the “assertion that demands primarily function to impair health, via strain and burnout, whereas resources lead to high levels of performance, via engagement.” (Parker, Morgeson, & Johns, 2017, p. 409.). Further research found evidence and support for many predictions based on the JD-R theory and the model became increasingly influential as the basis for the job crafting conceptualization by Tims and Bakker (2010). However, there are some critiques of the model, proposing that the conceptual distinction between the key concepts is not clearly defined (Schaufeli & Taris, 2014). The theory leaves several conceptual questions unanswered (Parker et al., 2017) such as: do poor resources establish a demand? And are engagement and burnout indeed conceptually distinct or the opposite ends of the same continuum (Cole, Walter, Bedeian, & O’Boyle, 2012)?

At last, I discuss an influential model by Clegg and Spencer (2007) that incorporates aspects of job redesign in their framework. The circular and dynamic model of job design incorporates a variety of factors such as job characteristics, motivational factors, factors of job content, and proposes a flexible circular structure that much better suits the characteristics of today’s contemporary organizations. Clegg and Spencer (2007) argue that the factors integrated in the model can influence job performance in a flexible manner. The model emphasizes several reversed causations, and the relationships are suggested to progress in a cyclical manner. For instance, job performance instead of being simply an outcome, evolves into a new input and the cyclical process continues. The model also incorporates the aspect of role adjustment, building on emerging proactive concepts such as job crafting which is discussed in section 2.4. One of the main contributions of this model is offering a step towards a proactive and flexible approach to job design that can be aligned with contemporary organizational cultures. However, the

full model is yet to be empirically validated, owing to the difficulty of testing the proposed dynamic relationships.

All of these job design theories were highly influential and valuable for subsequent research in the area, as they provide an interesting timeline to how the role, power, and autonomy of individual employees have changed over time. Early research on job design by Babbage (1835), Smith (1850) and Taylor (1911) all took a top down approach to job design, and put all the power in the hand of the managers and the organization. Even in the 1970's, the focus of Job Characteristics Theory (JCT) by Hackman and Oldham (1976) maintained that it is the job of the managers and organization to design suitable jobs for the employees. However, the influence of the evolving proactive perspectives have changed the approach to job design, and the more recent models such as Clegg and Spencer (2007), have incorporated role adjustment activities of the employees in their model. In the next section I discuss the emerging proactive perspectives in more details.

2.3. The rise of the proactive perspectives

“...that organizations are supposed to be run from the top down, not from the bottom up; that many employees have neither the competence nor the commitment to take real responsibility for carrying out the work of the organization on their own; that organizational effectiveness should be measured primarily, if not exclusively, in terms of the economic efficiency of the enterprise; that more management control of employee behavior is better management” (Hackman & Oldham, 1980, p. 268-269.)

Traditional approaches typically focused on management practices, and took a top-down approach to job design. As one of the most dominant models, namely the JCM, challenged the more early views on job design (Babbage, 1835; Smith, 1850; Taylor, 1911), but the approach remained top-down in nature, and the model failed to recognize the aspect of employee proactivity. Building on the drawbacks on this top-down approach of the early work on job design, researchers have started to increasingly recognize the role that employees play in the design of their own jobs, focusing on the proactivity of their efforts: “employees do not just let life happen to them. Rather, they try to affect, shape, curtail, expand, and temper what happens in their lives” (Grant & Ashford, 2008 p.4). This shift of focus was unavoidable due to the considerable changes that occurred in the nature of work over the past 30 years. A number of key changes occurred such as globalization, technological advancement, the rise of flexible and part-time work arrangements, and the shift from a manufacturing economy to a knowledge and service focused economy (Oldham & Fried, 2016). This shift from an industrial society to information society resulted in less predictable and more knowledge intensive work that requires proactivity. To provide greater autonomy for work teams and to promote collaboration across boundaries (cultural, geographical, occupational), organizations are implementing a flatter structure (Griffin, Neal, & Parker, 2007; Osterman, 2000). Global and virtual work, and the increasing use of self-managing teams has taken over the previously rigid and static job roles (Oldham & Fried, 2016). Jobs became more dynamic, and the constantly changing inputs, outputs, and processes resulted in continuously shifting projects (Kozlowski & Ilgen, 2006).

According to Grant and Parker (2009), uncertainty is a key feature that shapes job design, and the outcomes that organizations must achieve (Griffin et al., 2007). Uncertainty played an important role in the emerging and expanding research attention

on the proactive tendencies of employees. It is a consequence of these above mentioned unpredictable contextual factors such as expanding and rapidly changing technological aspects of work, and the ever-growing competition for talent and customers, resulting in the unpredictability of inputs, outputs, and processes of complex work systems (Wall, Cordery, & Clegg, 2002). It is difficult and seldom possible to manage uncertainty through control systems (Weick, Sutcliffe, & Obstfeld, 1999). Therefore, organizations increasingly rely on a more flexible job design, and on employees to proactively take initiative to change the execution of their job (Freese & Fay, 2001). Traditional views on job design (e.g., Hackman & Oldham, 1976, 1980) assumed that it is the role of the managers to structure the jobs of their employees. However, with the increasing levels of uncertainty, managers are no longer able to design rigid and formalized jobs that thoroughly specify the expected tasks and behaviours required in the job (Oldham & Fried, 2016). Thus, managers increasingly rely on their workforce to adapt to and introduce changes in the nature of their job (Freese & Fay, 2001).

According to a structural review by Parker and Bindl (2017), more than 236 articles were published between 2010 and 2015 on the subject of proactivity, almost four times the number of articles ($N = 66$) that was published in the five-year period between 2005 and 2009 altogether. These papers covered a burst of proactive concepts, varying in whether proactivity is seen as a pattern of behaviours (Freese & Fay, 2001), a stable disposition (Crant, 2000), or a way of behaving at work (Grant & Ashford, 2008; Parker et al., 2006; Bindl & Parker, 2010). Parker, Bindl, and Strauss (2010, p. 828) define proactivity as “taking control to make things happen rather than watching things happen. It involves aspiring and striving to bring about change in the environment and/or oneself to achieve a different future”. This definition taps into three key dimensions that collectively describe proactivity (Parker & Bindl, 2017):

1. *Future focussed*: proactivity refers to thinking about and anticipating the long-term future, as a form of goal-directed behaviour.
2. *Change oriented*: in addition to anticipating future challenges, one must also actively act on these challenges through achieving change.
3. *Self-starting*: the action or behaviour is initiated by the individual him/herself, as a reaction to the personal interest or commitment to the matter in question.

One of the most influential proactive concepts emerged in 2001, and has since attracted particular and substantial research attention. The concept of *job crafting* was introduced by Wrzesniewski and Dutton (2001), and brought a major development to the field with a bottom up approach to job design. The job crafting theory puts the power in the hands of the employees, and effectively states that individuals can take proactive action and become responsible for their own job design or redesign. The introduction of job crafting was a hindsight an almost inevitable development due to the changes in the world of work (e.g., globalization, technological advancement, development of employee laws and human rights, the rise of flexible and part-time work arrangements, and the shift from a manufacturing economy to a knowledge and service focused economy), as noted above. Due to these changes, employees are becoming increasingly independent, and job crafting is a relevant and suitable behavioural concept to help take charge of one's job and work environment.

2.4. The introduction of job crafting

Job crafting has become one of the most influential research avenues within the scope of job design following the seminal paper of Wrzesniewski and Dutton (2001). The authors define job crafting as “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p. 179). They use the term ‘crafting’ to capture “the

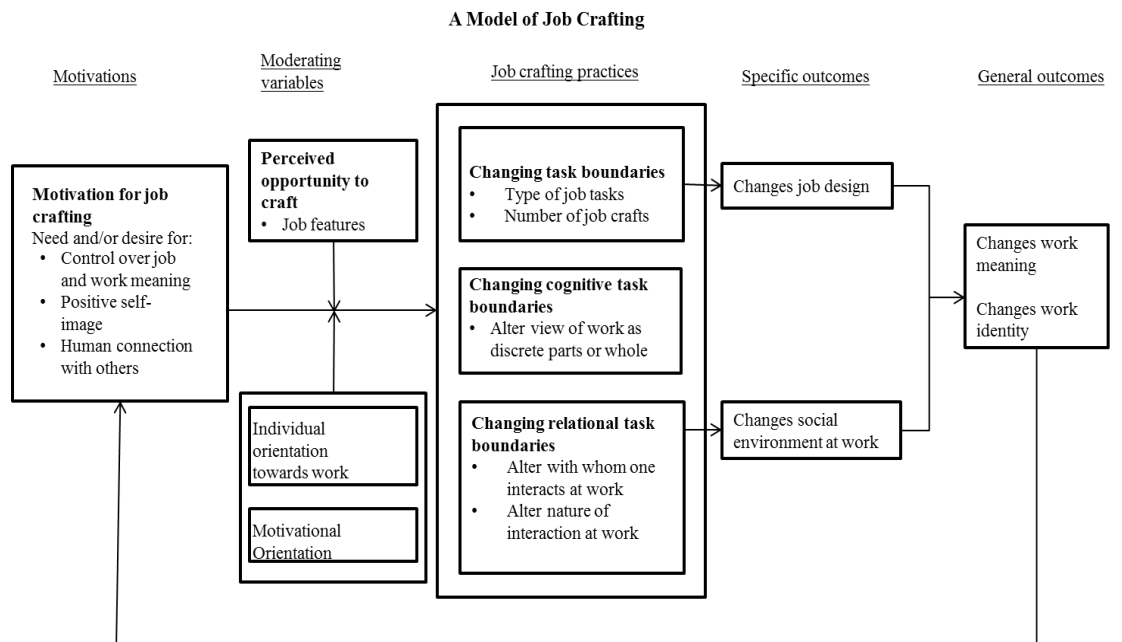
actions employees take to shape, mold, and redefine their jobs” (p. 180). The authors suggest that the interactions and work tasks that compose the working days are the raw materials employees use to construct their jobs, and they draw on the assumptions of social constructionism that "place particular stress on the individual's psychological construction of the experiential world" (Gergen, 1994, p. 67). Job crafting is a physical, psychological, and social act, in which cues are read about physical boundaries of the work and these cues are interpreted by job crafters. Job crafters are individuals who actively construct what their job is both physically, by altering a job's task and relational boundaries, and what their job is cognitively by altering the way they think about their job tasks, and their relationships at work. Job crafters act upon the opportunities to change the relational and task boundaries of their job, and change their identity and the meaning of the work in the process. Consequently, job crafters create different jobs for themselves within the context of their defined jobs.

However, the idea that individuals can craft their jobs within the constraints of their prescribed jobs is not completely new, and there have been earlier research studies proposing similar ideas. As an example, Staw and Boettger (1990) build on previous research on role innovation by Katz and Kahn's (1966), and proposed that individuals engage in task revision and sculpting activities (Bell & Staw, 1989) that can make a difference for both the individual and the organization. Another related idea was proposed by Ilgen and Hollenbeck (1992), who argued that individuals can create emergent task elements in their job roles, given that there are suitable conditions such as few formal requirements, great deal of autonomy, and freedom to choose the work tasks to be undertaken. However, despite these valuable developments, up to the introduction of job crafting the idea that employees can actively redesign their jobs has not been studied sufficiently, regardless to its significance to organizational studies. Job crafting and its

distinction from previously proposed related constructs will be discussed in more detail in Section 2.5.

Wrzesniewski and Dutton (2001) offer the fundamental framework of job crafting (*Figure 1*), and describe the following aspects: (1) the individual motivations that initiate these behaviours, (2) the forms job crafting takes, the (3) moderating situational and dispositional conditions and (4) the possible outcomes of crafting behaviours. Next, I discuss the theoretical framework of job crafting.

Figure 1: Job crafting model (adapted from Wrzesniewski & Dutton, 2001)



2.4.1. The motivation to craft

Wrzesniewski and Dutton (2001) identified three individual needs as sources of the motivation for job crafting; the need for control, the need for positive self-image, and the need for human connections.

Need for control drives employees' job crafting activities with the aim to gain some control over their work. It is a basic human drive, and employees respond well to having control, even if it is over small matters (De Rijk, Blanc, Schaufeli, & De Jonge, 1998). By taking control even of some small aspects of the job, job crafters can take ownership and make the job their own. Even in jobs with low autonomy, "employees can create new domains for mastery and shape facets of job tasks to take control over some aspect of the work" (Wrzesniewski & Dutton, 2001, p. 181.).

Second, people are motivated to create a positive self-image at their work. Employees have a strong desire to create and then sustain a positive self-image in their own, and others' eyes. When employees are faced with a situation in which constructing a positive self is difficult, they respond by altering the situation. As an example, Rogers (1995) describes how temporary workers changed their name while doing a short-term job. Their aim was to separate the negative impressions of temp work from their self-identity. The pressure of creating and maintaining a positive sense of self pervades many aspects of the individuals' work activities. Thus, enabling a more positive self-image can be considered as one of the strong motivators of job crafting.

The notion of job crafting also provides opportunities for individuals to satisfy their basic human need for connection at their work (Baumeister & Leary, 1995). To satisfy this need, employees build relationships at work with others. Developing connections with others is a way to create meaning in the work (Baumeister & Leary, 1995). Although most theories on the meaning of work are individually based (Brief & Nord, 1990), Wrzesniewski and Dutton (2001) extend this view by suggesting that employees build relationships with others at work to re-evaluate their work identities and the meaning of their work.

Although these three individual needs are crucial in driving job crafting behaviours, it is likely that there are other motivators behind the process. As it will be outlined in Chapter 3, prosocial motivation may also be an important driving force behind a subset of job crafting behaviours based on previous finding suggesting that many employees seek employment in organizations where they have the opportunity to make a positive impact (Colby et al., 2001).

2.4.2. Moderating situational and dispositional conditions

Wrzesniewski and Dutton (2001) propose that dispositional and situational conditions such as the perceived opportunity to craft, and the individual's work and motivational orientation moderate the motivation to craft. The authors posit that motivation to craft intensifies when employees perceive that there is an opportunity to craft. This perception refers to the discretion and sense of freedom the individuals have in what they do at work, and how they do it. The perception of crafting opportunities is psychologically positive, as it implies a form of control (autonomy) and a sense of possible gain. The framework of Wrzesniewski and Dutton (2001) sets forth two dimensions of perceived opportunity: a) the form and level of task interdependence and b) the level of freedom to job craft based on the monitoring systems in the job.

Task interdependence is the "the extent to which the items or elements upon which work is performed or the work processes themselves are interrelated so that changes in the state of one element affect the state of the others" (Scott, 1987, p. 214). Based on previous research by Thompson (1967), Wrzesniewski and Dutton (2001) suggest that employees with more task interdependence work under more constraints and therefore have less freedom to alter relational and task boundaries. In contrast, it is expected that less task interdependence creates more freedom for crafting, in turn, enhancing the

perceived opportunity to job craft. In addition, supervision and monitoring by management may affect whether employees perceive opportunities to job craft. In closely supervised and monitored jobs, job crafting is likely to be both high in visibility and less welcomed. Therefore, when employees' jobs are controlled and strictly defined, the individuals perceive less opportunity for crafting. On the contrary, when employees are less controlled, they may perceive more opportunities to craft their jobs (Amabile, Hill, Hennessey, & Tighe, 1994). In summary, Wrzesniewski and Dutton (2001) suggest that autonomy in the job leads to perceived opportunities for job crafting, and in turn encourages employees to change the relational and task boundaries of their jobs.

Wrzesniewski and Dutton (2001) propose that the employees' orientation towards their work is a likely moderator of the relationship between the motivation to craft and job crafting behaviours. Previous research (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997) suggests that people have one of three distinct orientations to their work, which helps to determine behaviours, feelings, and thoughts towards work. These orientations offer a window to the way people see their work, and more importantly, how they craft their work in order to align with their work orientation (Wrzesniewski, 2003). Bellah et al. (1985) differentiated three dominant orientations towards work: Job, Career and Calling orientation. The first orientation is the Job orientation in which people view their work as means to a financial end, focusing on the material aspects of the job. On the other hand, individuals with a Career orientation focus on the advancement within the occupational or organizational structure and on the rewards (increased pay, prestige, status, power, social standing) that come with the advancement. Finally, employees with a Calling orientation work for neither the financial rewards nor the advancement, but mainly for the fulfilment that doing their job brings. Although calling orientation is usually accompanied with the belief that the work

contributes to a greater good (Wrzesniewski et al., 1997), it is not solely individuals with a calling orientation who can be prosocially motivated. Prosocial motivation and doing good for others can be a distinct way to create meaningfulness in jobs where the individual does not have a sense of fulfilment (e.g., intellectual, use of abilities).

The model of Wrzesniewski and Dutton (2001) proposes that the general motivational orientations of employees may also moderate the relationship between the three forms of motivations to craft and job crafting (Amabile et al., 1994). Wrzesniewski and Dutton (2001) posit that depending on whether the individual is intrinsically or extrinsically motivated, they may engage in different kind of job crafting behaviours. Individuals with intrinsic motivations for working may engage in job crafting behaviours that allow them to use their skills and competence in their work. In contrast, extrinsic motivations for working may facilitate job crafting that limits the relational or task boundaries of the job. However, one of the weaknesses of the job crafting model might be that its clarity is reduced by indicating motivational factors, although different types, in both antecedent and moderating roles. Thus, in order to improve clarity, my thesis will examine a theoretical model in which motivational factors will take an antecedent role.

In conclusion, Wrzesniewski and Dutton (2001) argue that the level of job crafting behaviours depend on the perceived opportunities to job craft, on the individuals' orientation towards work, and their general motivational orientation. The theoretical model of my thesis (outlined in section 3.6.) builds on these principles in different ways, such as considering the moderating role of perceived opportunities to craft, and proposing a motivational factor as an antecedent variable.

2.4.3. The forms of job crafting

Wrzesniewski and Dutton (2001) propose that job crafting has three main forms, namely task, relational, and cognitive job crafting. Next, I describe these three dimensions in more details. *Task crafting* refers to proactively altering the task boundaries and properties of one's job. Employees engage in task crafting through changing the number, scope, or type of tasks completed at work. *Relational crafting* reflects the changes employees make in the relational boundaries of their job, through altering the amount and/or quality of interaction with others at work. Finally, the third form of job crafting, namely *cognitive crafting*, refers to the processes through which employees alter the cognitive task boundaries of their jobs. Changes in one's own views of his/her job can result in fundamental changes in how employees' approach work. These three types of crafting are not mutually exclusive, and they could be exercised in any combination of each other. In addition, they can occur quickly, or unfold gradually over an extended period of time (Wrzesniewski, LoBuglio, Dutton, & Berg, 2013).

Although a number of research studies utilized and built on the three dimensional conceptualization (e.g., Lyons, 2008; Slemp & Vella-Brodrick, 2013, 2014), the model also received criticism. Tims and Bakker (2010) argue that the three dimensional model is too general and vague, and does not encapsulate specific job redesign behaviours. Tims and Bakker (2010, p. 174) redefined job crafting as “the changes that employees may make to balance their job demands and job resources with their personal abilities and needs”, and proposed the Job Demands-Resources (JD-R) perspective as a framework of job crafting. Instead of the three- dimensional theory, they proposed 4 dimensions of job crafting focusing on job resources and demands, capturing rather different behaviours from task, relational, and cognitive crafting. The 4 dimensions are increasing structural

job resources, decreasing hindering job demands, increasing social job resources, and increasing challenging job demands.

Although this new conceptualization became popular and received substantial research attention (e.g., Tims, Bakker, & Derks, 2012, 2013; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012), I argue that the researchers rather than advancing, altered the fundamental intellectual foundations of the concept by applying a pre-existing theory to reframe job crafting theory. Moreover, the aspect of cognitive level crafting was not incorporated in the framework, in turn dismissing a range of key crafting behaviours (Slemp & Vella Brodrick, 2013). The JD-R conceptualization of job crafting is discussed in more detail in section 2.6.4.

Although the theoretical reconceptualization (Tims & Bakker, 2010) of the original job crafting theory (Wrzesniewski & Dutton, 2001) might have been excessive, the criticism regarding the slightly limited and general nature of the original three dimensional conceptualization was acknowledged, and several empirical studies were conducted with the aim of advancing the dimensions (e.g., Laurence, 2010; Weseler & Niessen, 2016; Bindl, Unsworth, Gibson, & Stride, 2018). In addition to the task, relational, and cognitive dimensions, the aspect of skill crafting was suggested, reflecting the employees' self-initiated efforts to change their skills at work to improve performance and meaningfulness (Wrzesniewski et al., 2012; Bindl et al., 2018). Moreover, some studies focused on exploring more specific crafting dimensions by looking at limiting and enhancing crafting behaviours (Weseler & Niessen, 2016; Bindl et al., 2018). I will discuss these studies in more detail in section 2.6.

2.4.4. The outcomes of job crafting

Wrzesniewski and Dutton (2001) posit that job crafting changes the meaning of the work by changing job tasks or relationships in ways that allow employees to re-evaluate the purpose of the job and experience the work differently. The meaning of work is at the centre of employees' experiences of their jobs, and it can be very different from one employee to the other. Work meanings can be considered as lenses through which employees understand their work, whether employees believe that their work makes the world a better place, or they consider work as an opportunity to earn a living in order to support a family (Wrzesniewski et al., 1997). Job crafting and the meaning of work are closely connected. As employees introduce and initiate changes in their tasks and relationships at work, the emphasis of their interactions and activities shifts in ways that can have an important impact on their 'experience of the work and their understanding of the meaning of it' (Wrzesniewski et al., 2013, p. 288). Job crafting that helps employees to modify their tasks and interactions in ways that allow for more expression of their values, beliefs, or motivations is likely to have a direct impact on the meaning of their work (Wrzesniewski & Dutton, 2001).

In addition to work meaning, job crafting may be an important factor in constructing work identities. An individual's work identity refers to who one is and who one is becoming at work (Ashforth & Mael, 1989). Job crafting is an influential mechanism for changing how one defines who one is at work (Wrzesniewski & Dutton, 2001) and establishing one's work identity (Wrzesniewski et al., 2013). There is a basic reason for shaping work identities. Individuals aim to create social communities that support their desirable self-image (Schlenker, 1985). The people with whom one interacts play a crucial role in co-creating and sustaining one's work identity. Thus, through job

crafting, employees participate in the construction of their own work identity by altering the amount and form of interaction with others at work.

While the researchers theorized that job crafting often has valuable implications for the employees' sense of meaning and identity in their work, they did not specify that job crafting is necessarily positive or negative for these two factors. Since the original theory, evidence became available suggesting that job crafting can indeed positively influence one's work meaning and sense of self (e.g., Laurence, 2010).

In conclusion, employees often have an innate desire to find positive meaning in their work (Rosso, Dekas, & Wrzesniewski, 2010) and construct a positive identity within their work environment (Dutton, Roberts, & Bednar, 2010). However, traditional job design theories are not likely to include a lot of opportunities to achieve either of these highly personalized outcomes. Thus, one of the main values of the job crafting perspective is that it offers a way to alter the content of one's job in ways that cultivate a positive sense of meaning and identity in work.

2.5. Distinctions between job crafting and related proactive concepts

Although the term 'job crafting' was first used in the 2001 paper of Wrzesniewski and Dutton, as noted in section 2.3, the idea of employees taking an initiative in altering their job is not entirely novel. As Nicholson (2010) posits, previous research (Nicholson, 1984; Kulik, Oldham, & Hackman, 1987; Black & Ashford, 1995), have already considered the idea that individuals can shape their jobs into something new within the frame of their prescribed role. Research on active job redesign has described several proactive behaviours individuals engage in. These behaviours are embedded in role theory, stating that employees with the same job will perform differently since they enact their job roles in different ways (Biddle, 1986). Examples of these related proactive constructs are role

innovation (e.g., Farr & Ford, 1990; Van Maanen & Schein, 1979), personal initiative (e.g., Frese, Kring, Soose, and Zempel, 1996), task revision (e.g., Staw & Boettger, 1990), voice (LePine & Van Dyne, 1998), and idiosyncratic deals (e.g., Rousseau, 2005). Next, I will briefly discuss these five constructs and their distinctions from job crafting, also presented in *Table 1*.

2.5.1. Role innovation

The concept of role innovation refers to the process in which the job holder proactively redefines the entire work by changing the practice or mission of the role (Farr & Ford, 1990; Van Maanen & Schein, 1979). Schein (1971) suggests that role innovation can be triggered when the job in its original form is not able to address the problems that are faced, and described the behaviour that represented a "basic rejection of the norms which govern the practice of the profession combined with a concern for the role of the professional in society" (Schein, 1971, p. 522). In a later paper, Van Maanen and Schein (1979) defined role innovation as "behaviours done to re-define the major premises concerning missions followed by the majority of the role occupants" (p. 229). Building on these studies, Nicholson (1984) described role innovation as the initiating of "changes in task objectives, methods, materials, scheduling and in the interpersonal relationships integral to task performance." (p. 175). These initiated changes are aimed to match the role requirements to the abilities, needs, and identities of the employee.

The job crafting theory of Wrzesniewski and Dutton (2001) overlaps with role innovation theory in that there is an assumption that employees can execute their job with the goal of creating a better fit. However, role innovation theory restricts the individuals' actions on the job to reactive, as opposed to proactive. Role innovation is not an entirely 'bottom-up' approach, as the managers are involved in the role innovation process.

Moreover, role innovation primarily focuses on problem-solving. Whilst, rather than an emphasis on problem-solving, in job crafting theory there is “an emphasis on the proactive changes employees make in the boundaries of their work to alter their identity or the meaning of the work” (Wrzesniewski & Dutton, 2001, p. 188).

2.5.2. Personal initiative

Personal initiative is a form of proactive behaviour by the employee that has a long-term focus, consistent with the mission of the organization, action, and goal directed, self-starting and persistent when facing difficulties (Frese, Fay, Hillburger, Leng, & Tag, 1997). Frese, Kring, Soose, and Zempel (1996) describe personal initiative as a behavioural approach in which individuals go beyond formal job requirements while taking self-starting approaches.

There are some overlaps between job crafting and personal initiative. Similarly to job crafters, individuals with personal initiative reconstruct jobs in order to include extra-role work goals (Staw & Boettger, 1990). However, Frese and colleagues (1997) emphasize the primarily problem-solving focus of personal initiative, differentiating the perspective of personal initiative from the perspective of job crafting, which is primarily about proactive need-satisfaction. Moreover, personal initiative behaviours are theorized to be always consistent with the goals of the organization, while with job crafting, this is not necessarily the case.

2.5.3. Task revision

Staw and Boettger (1990, p. 534) define task revision as “an action taken to correct a faulty procedure, an inaccurate job description, or a role expectation that is dysfunctional for the organization.” The researchers have shown that people engage in more task

revision when they are in charge of and/or accountable for the task they perform. Moreover, task revision increases when there are relevant alternatives for the task in question. Similarly to personal initiative, the focus of task revision is on problem solving and correction of work procedures. Thus, Staw and Boettger (1990) argued that when organizational roles are not accurately specified, then task revision can be a beneficial strategy. However, from a job crafting perspective, making changes in work tasks is not only beneficial when there are problems, but also when tasks might be appropriate and functional, but the aim is to enhance the meaning of the work as a result. Staw and Boettger (1990) also posit that task revision rarely occurs in organizations, since it "involves resistance to social norms and expectations" (p. 538). On the other hand, job crafting occurs much more frequently, often multiple times in a day in a variety of work contexts.

2.5.4. Voice

LePine & Van Dyne (1998) define voice as "non-required behaviour that emphasizes expression of constructive change with the intent to improve rather than merely criticize" (p. 109). Voice behaviours are about speaking out and/or challenging the status quo with the aim of improving the situation. Through suggesting more effective ways of doing things, voice can result in positive outcomes for the organization, such as innovative ideas (Katz & Kahn, 1966; Nemeth & Staw, 1989). Similarly to the above discussed related concepts, voice behaviour also focuses on problem solving and provoking the status quo through challenging behaviour. This problem focused approach is the key factor that differentiates voice from job crafting. Moreover, voice is restricted to speaking out, whilst job crafting involved a much larger variety of change oriented behaviours on the task, relational, and cognitive level.

2.5.5. Idiosyncratic deals

Idiosyncratic deals refer to the negotiation of individual work arrangements of an employee with his/her employer (Rousseau, 2005). This can be seen as a form of proactive behaviour as negotiating an idiosyncratic deal requires employees to inform their employers of their needs, and also initiate the fulfilment of these needs (Rousseau, 2005; Hornung et al., 2008; Lai et al., 2009). HR practices in the developed world have traditionally restrained customization in favour of standardization (Pearce, 2001). However, the liberalization of labour laws (Farber & Western, 2000), together with a growing awareness of the value of human capital to organizations (Cappelli, 2000), have made it more acceptable to negotiate idiosyncratic deals as a supplement to regular employment conditions. Idiosyncratic deals are intended to benefit both the employee and the organization by giving a valued employee something that could have not been obtained through standard organizational practices (Rousseau, 2005). The contents of idiosyncratic deals can involve a variety of resources, from tangible (e.g., payment) to abstract (e.g., recognition, social support). Research on idiosyncratic deals have identified two common forms: the aim to achieve flexible work hours and special opportunities for training, skill, and career development (Rousseau, 2005). There are some similarities between job crafting and idiosyncratic deals as both constructs are proactive in nature, and focus on individual need satisfaction. Out of the related concepts discussed, idiosyncratic deals has the most overlaps with job crafting. However, idiosyncratic deals capture a much more limited range of behaviours compared to job crafting, as it mainly focuses on the act of negotiation. Moreover, while job crafting is an entirely 'bottom up' process that occurs without the involvement of management, idiosyncratic deals requires the participation on management in the process. Consequently, I propose that

idiosyncratic deals is a somewhat ‘hybrid’ construct between top down approaches and job crafting, as the key difference between job crafting and idiosyncratic deals is the involvement of management in the process.

2.5.6. Overview

All above discussed proactive or job redesign concepts imply that employees have the opportunity to go beyond their assigned tasks in order to create their own goals and adopt a long-term perspective to avoid problems (Parker, Williams & Turner, 2006). However, most of the concepts described are usually focused on improving problems that primarily concern the institution of employment (LePine & Van Dyne, 1998). Thus, the aim of these behaviours is not necessarily to satisfy individual needs and seek positive individual outcomes. In addition, the concepts describe actions that involve the inclusion of the management in the process. *Table 1* presents an overview of the above discussed constructs and their distinction from job crafting. Job crafting differs from the above discussed proactive concepts because the changes in the job design are not necessarily negotiated with the organization and the supervisor, and the crafting activity is not necessarily in line with the organizational goals. In many cases, these changes are probably not even noticed by the management (Wrzesniewski & Dutton, 2001). In addition, job crafting is not explicit to a longer time-focus as opposed to behaviours such as idiosyncratic deals or task revision, but it can occur for a short duration in certain periods.

Moreover, job crafting is distinct from other related constructs such as job enrichment and job enlargement, which focus on making alterations in the structural aspects of the job. Job enlargement involves expanding jobs ‘horizontally’ and thus increasing the breadth of activities an employee performs at work, while job enrichment

involves expanding jobs ‘vertically’ in order to increase one’s responsibility to make decisions (Wrzesniewski & Dutton, 2001). In contrast to these constructs, job crafting is at the discretion of the individuals who ultimately shape and customize their work experience to align with their individual desires and needs (Slomp & Vella-Brodrick, 2014).

Table 1: Overview of job crafting and related concepts (adapted from Wrzesniewski and Dutton, 2001)

Construct	Locus of activity	Purpose of activity	Social nature of activity	Favourable conditions for activity	Main distinctions from job crafting
Role innovation (Schein, 1971; Van Maanen & Schein, 1979)	Employee with management intervention	Addressing or improving upon a faulty task or role	Inherently social activity	Support of others, feedback, autonomy, complex work	Role innovation is reactive, primarily focuses on problem-solving, and the management is involved in the process.
Personal initiative (Frese et al., 1996, 1997)	Employee with management intervention	Solving problems or overcoming barriers	Individual	Autonomy, complex work	The primary aim of personal initiative is to solve problems
Task revision (Staw & Boettger, 1990)	Employee with management intervention	Correcting problems in roles or procedures	Individual	Authority, task alternatives are salient	Reactive in nature, and the primary focus is correcting faulty procedures,

					occurs less frequently
Voice (e.g., LePine & Van Dyne, 1998)	Employee with management intervention	Speaking out with the intent to improve things and solving problems	Inherently social activity	Support of others, feedback, autonomy	Challenging behaviour with a problem-solving focus, involves management, only captures 'speaking out'
Idiosyncratic deals (e.g., Rousseau, 2005)	Employee negotiating with management	To negotiate individual work arrangements	Inherently social activity	Support of others, autonomy, alternative arrangements	Captures only negotiating behaviours, involves management in the process
Job crafting	Employee	Increasing meaning in the work, changing identity and role in organizations	Pursued by the individuals, but can involve others (e.g., relational crafting)	Can occur in any type of job	N/A

2.6. An overview of the research on job crafting

In the first decade after its introduction in 2001, job crafting has received limited research attention with only a handful of studies published on the topic (Ghitulescu, 2006; Lyons, 2008; Leana, Appelbaum, & Shevchuk, 2009). After 2010 the concept became increasingly popular, although most job crafting studies built on the reconceptualised theory of Tims and Bakker (2010), resulting in limited advancement of and focus on the original theory. Thus, my research provides an important contribution to job crafting research by adapting the theory of Wrzesniewski and Dutton (2001).

As regards to the focus of job crafting research, most studies have focused on how it positively transforms employees' experience of their work and their performance, and found positive attitude and improved performance as the result of job crafting behaviours, both at an individual and team level. There are only a few studies investigating the 'double edged sword' of job crafting, looking at the potential negative outcomes of these proactive behaviours.

In this section I critically review the literature on job crafting, with the aim of highlighting the development, modification, and advancement of the framework, and the strengths and weaknesses of existing research.

2.6.1. Early research on job crafting

In the first empirical research on job crafting including two studies, Ghitulescu (2006) conducted a questionnaire research with engineers working in autonomous teams in a manufacturing organization, and special education teachers in several schools. Ghitulescu (2006) developed a quantitative measure including six subscales capturing the three dimensions of job crafting based on Wrzesniewski and Dutton (2001) with occupation specific items (e.g., math teachers). The results indicate that job crafting improves job satisfaction, commitment, and individual performance, while decreasing absenteeism. There are several strengths of this work. First, the data in both studies were collected from multiple sources: self-report data were collected using the measures developed in the study, performance data were collected from supervisors, and absenteeism data were collected from secondary sources (archival information). Moreover, the studies have a longitudinal design since the supervisor ratings were collected at a later time point compared to the self-report measures. However, there are some limitations regarding the measure of job crafting. First, the work is an unpublished doctoral dissertation, hence it

has not gone through extensive peer-review. Moreover, the measures were not extensively validated and the task crafting measure used in study 1 is limited as it does not capture the richness and degrees of individual task crafting behaviours. Although the task crafting measure was improved in study two, it is a further limitation of the research that different measures were used in the two studies.

In another early study on job crafting, Lyons (2008) investigated the relationship between job crafting behaviours and quality of self-image, perceived control, and readiness to change. Lyons (2008) adapted a qualitative design investigating the work process of salesmen. The study provides valuable evidence supporting the model of Wrzesniewski and Dutton (2001), as the investigation focused on four individual characteristics (cognitive ability, self-image, perceived control, readiness to change) that were interpreted from the original framework. The study by Lyons (2008) provides a significant contribution by investigating the individual characteristics that potentially relate to job crafting behaviours. The study narrows down on the four individual characteristics that seem to have particular relevance for job crafting activity, and the results show that positive significant relationships were displayed between episodes of work modification and the variables of self-image, perceived control, and readiness to change. One of the strengths of the study that it provides face and rational validity to job crafting by reporting that over two thirds of the participants confirmed that they have engaged in job crafting behaviours. However, the sample size is relatively small and the data is solely self-report, weakening the contribution with the potential for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

A review by Berg, Dutton, and Wrzesniewski (2008) discusses early studies on job crafting and created a simplified, yet extended version of their original framework (Wrzesniewski & Dutton, 2001) through integrating the findings from two unpublished

(Caza, 2007; Grant, Alexander, Griesbeck, Jaffe, Kagan, Kamin, Kemerling, Long, Nagel, Paulding, & Swayne, 2007) and a published study (Grant, Berg, & Johnson, 2010) on job crafting. This modified framework is displayed in *Figure 2*, incorporating the ideas and findings of three papers (Caza, 2007; Grant et al., 2007; Grant, Berg, & Johnson, 2010). The model is simplified by displaying a three-step structure, focusing on the motivators, forms, and outcomes of job crafting, but not including the proposed moderators included in the original framework. And it is extended by including a number of specific motivators (e.g., need for fulfilment of passion for an occupation other than one's own), crafting behaviours (e.g., changing relationships to cope with adversity) and individual outcomes (e.g., positive experiences, unintended negative consequences).

The unpublished doctoral dissertation of Caza (2007), investigated how midwives cope with adverse work environments through conducting 29 interviews. Caza (2007) found that the participants used job crafting as an effective coping strategy for overcoming adversity at work. In an example described by Caza (2007), a midwife taken on the additional task of counselling in order to calm down a distressed patient, and in turn felt more satisfied with her job.

The second study incorporated in the framework of Berg, Dutton, and Wrzesniewski (2008) is a manuscript by Grant, Alexander, Griesbeck, Jaffe, Kagan, Kamin, Kemerling, Long, Nagel, Paulding, and Swayne (2007) investigating job crafting through looking at employee behaviours in a variety of service occupations (dentists, hairstylists, personal trainers). Grant and colleagues (2007) found that job holders keenly and proactively craft their interactions with their service recipients in order to feel like their work is making a meaningful positive impact on their customers. The study outlined a variety of behaviours that employees engage in to accomplish this, such as completing additional tasks or altering existing tasks in order to have a positive impact on service

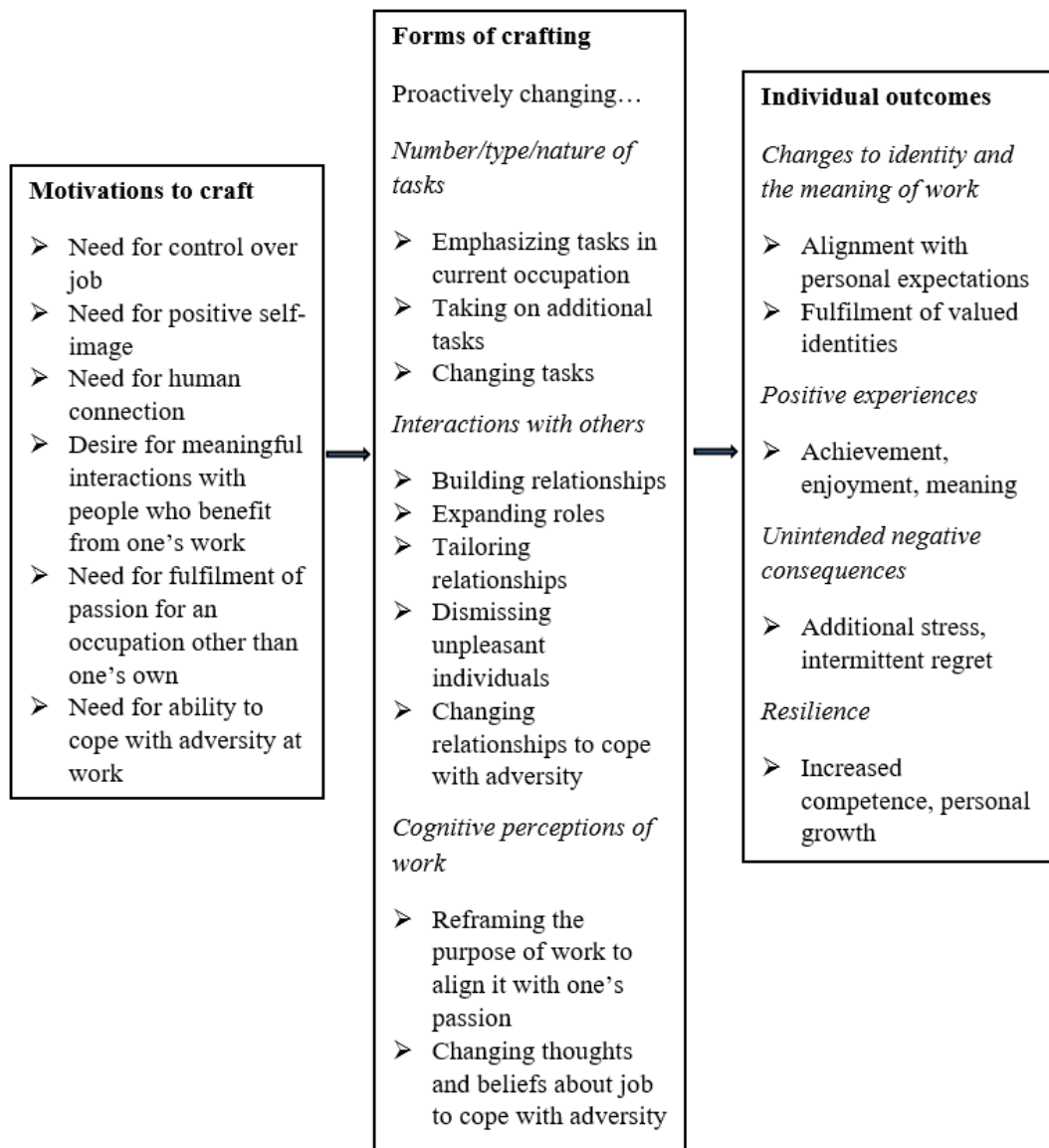
recipients. The study also found that job holders alter and establish relationship to have a positive impact on their service recipients.

Both of these unpublished studies provide valuable insights by empirically investigating specific job crafting behaviours with the intent of coping with adversity and making a positive difference in novel organizational settings. However, both studies are qualitative in nature with relatively small sample sizes, therefore the external validity of the findings cannot be established. Moreover, both of these studies focused on specific organizational settings in which the job holders' primary role is to work closely, in one-to-one relationships with clients. Hence, the interactions described in these studies are restricted to interactions with service recipients. One of the research aims of my PhD thesis is to address this gap by investigating similar behaviours to the ones described in Grant et al. (2007) in more details, with more generalizable samples from different organizational settings, in which a wider range of workplace interactions can be examined. I will elaborate on the empirical studies of my research with more details in Chapters 3, 4 and 5.

The third paper included in the review of Berg, Dutton, and Wrzesniewski (2008) is a later published paper by Grant, Berg, and Johnson (2010) looking at the relationship between job crafting behaviours and work orientation, more specifically, a calling orientation (Wrzesniewski et al., 1997). Berg et al. (2010) conducted 31 interviews and looked at job crafting behaviours of individuals who have unanswered (missed, additional) callings due to working in occupations other than the one they have a true passion for. The researchers propose that job crafting can be a valuable tool to create opportunities for fulfilling the passion and calling of these individuals, and describe five forms of crafting behaviours. These five types of crafting behaviours are: task emphasizing, job expanding, role reframing at work, vicarious experiencing, and hobby

participating in leisure time. Berg and colleagues (2010) propose that the outcome of these behaviours are twofold. On the one hand, through engaging in these crafting behaviours, individuals can facilitate outcomes of pleasant psychological states of meaning and enjoyment associated with pursuing their unanswered callings. On the other hand, these behaviours can also lead to unpleasant states of regret and stress over the missed and/or difficult fulfilment of their unanswered callings. This study offered several valuable insights, such as highlighting the potential 'double edged sword' of job crafting. Although the sample size is relatively small, the participants were recruited from a variety of occupational settings, hence increasing external validity.

Figure 2: Summary of early research on job crafting (adapted from Berg, Dutton, & Wrzesniewski, 2008)



The studies discussed in the review of Berg, Dutton, and Wrzesniewski (2008) offer a number of valuable contributions, by highlighting specific motivations such as the need for human connections, desire for a different meaning of work of work identity, or coping with adversity, and specific job crafting behaviours. Moreover, a variety of specific individual outcomes are described, advancing the rather general outcomes described in the model of Wrzesniewski and Dutton (2001). However, one could argue that the review by Berg, Dutton, and Wrzesniewski (2008) is unbalanced due to the solely qualitative

nature of the three studies outlined. Moreover, all three studies discussed have relatively small sample sizes, hence raising generalizability and external validity issues. However, the review contributed several advancement to the original framework of Wrzesniewski and Dutton (2001), by looking at more specific job crafting behaviours, such as crafting behaviours with positive intentions and behaviours with the aim of reducing adversity. Moreover, proposing that although the outcomes of job crafting are mainly positive in nature, crafting behaviours can result in negative outcomes as well.

In the next section I will describe job crafting from a positive psychological perspective, focusing on the beneficial outcomes of crafting behaviours, followed by a section on research looking at the potential negative outcomes of job crafting.

2.6.2. Job crafting from a positive psychological perspective

The aim of the field of positive organizational psychology is to better understand employees' optimal functioning at work. Job crafting theory has the potential to provide an important contribution by helping to illuminate the job-related actions that employees engage in to move themselves closer to a more optimal functioning. Today many individuals define themselves and are socially defined by their job. Due to the increasingly competitive nature of the job market, many individuals may end up in jobs that they have not originally desired or planned for. Thus, understanding sources of motivation and meaning in work should be one of the central aims of organizational scholars.

Job crafting theory (Wrzesniewski & Dutton, 2001) offers two valuable contributions to positive organizational psychology. First, the proactive behaviours of employees are in the centre-stage of the process, conceptualizing and empirically exploring the motivational and creative bases of employees changing their jobs in order

to improve their experience of work. Second, job crafting adds to existing knowledge in positive organizational psychology through focusing on the range of generative outcomes of job crafting.

Below I provide a systematic review of papers building on the conceptualization of Wrzesniewski and Dutton (2001) that linked job crafting behaviours to positive outcomes. I conducted a thorough literature search using search engines such as Google Scholar and Web of Science, focusing on papers that cited the seminal paper of Wrzesniewski and Dutton (2001), also considering the impact factor of the relevant journals (Shepherd & Challenger, 2013). Following, I narrowed down these papers to research on job crafting, and finally examined which studies used the three dimensional conceptualization of Wrzesniewski and Dutton (2001).

The first study I identified is a paper by Ko (2012). The researcher measured the daily experiences of 258 engineers using online diary surveys, investigating the role of flow experiences (Nakamura, Csikszentmihalyi, Snyder, & Lopez, 2002) that occur during job crafting activities. The study demonstrated that many participants reported positive emotions after episodes of job crafting, partially explained by the flow experiences that occurred during job crafting behaviours.

Building on the findings of Ko (2012), Wrzesniewski, Berg, Grant, Kurkoski, and Welle (2012) conducted a field quasi-experiment, comparing the effects of engaging in job crafting with engaging in job crafting that is conforming with employee happiness and skills development. Wrzesniewski and associates (2012) found that engaging in job crafting leads to short-term (6-week) boosts in happiness, while increase in happiness from job crafting in addition to skill development takes longer to realize but has a greater and longer-lasting effect (at least 6 months) than job crafting alone (Wrzesniewski, LoBuglio, Dutton, & Berg, 2013). Both of these studies by Ko (2012) and Wrzesniewski

et al. (2012) provide crucial insights into the potential beneficial outcomes of job crafting, highlighting the importance of these behaviours. However, both studies were qualitative in nature, and focused on specific organizational settings, hence the generalizability of the findings may be uncertain.

Slemp and Vella-Brodrick (2014) also looked at positive well-being outcomes of job crafting in the frame of a quantitative study. The researchers tested a model of task, relational and cognitive crafting, self-determination, and employee well-being in organisations. Slemp and Vella-Brodrick (2014) hypothesised that job crafting would predict psychological need satisfaction, which in turn would predict employee well-being. The study used a job crafting scale, namely the Job Crafting Questionnaire (JCQ), developed by the researchers in an earlier study (Slemp & Vella-Brodrick, 2013). This study providing further validation of the scale. The results showed that the hypothesised structural model fit the data well in a sample of working adults, indicating that the extent to which employees engage in job crafting behaviours, predicts the extent to which their psychological needs are satisfied on the job. Although the data used in the study was self-report and cross-sectional, it presents promising findings that worth further investigation.

In a 2014 paper, Shusha investigated a different aspect of positive psychology by focusing on Organizational Citizenship Behaviours rather than the potential happiness and well-being outcomes of job crafting. Shusha (2014) examined the influence of job crafting on five OCB dimensions (altruism, conscientiousness, courtesy, civic virtue sportsmanship) among 396 nurses in nine Egyptian medical centres. Shusha (2014) quantitatively examined the task and relational dimensions of job crafting, and found that nurses who engaged in more frequent relational and task crafting displayed higher levels of OCBs. Although the study offers valuable insights by linking job crafting to OCBs, the

job crafting measure used in the study was not validated and the cross-sectional research design weakens the contribution of the study.

More recently, there have been a growing research interest focusing solely on the task dimension of job crafting (McClelland, Leach, Clegg, & McGowan, 2014; Lin, Law, & Zhou, 2017). Lin and colleagues (2017) contributed to the positive psychological point of view of job crafting by looking at task crafting as a coping mechanism in order to reduce negative emotions. Lin and colleagues (2017) proposed that task crafting, as a primary form of job crafting, may be a coping strategy utilized by employees as a reaction to the negative feelings of underemployment. The sense of underemployment can result from the perception that one's qualifications and skills are under-utilized, and lead to "corresponding strategies to redesign their jobs for a better fit" (Lin et al., 2017, p.157). The researchers theorized that underemployment results in positive actions through task crafting, and found that objective underemployment displayed an indirect curvilinear effect on task crafting through perceived underemployment, while organizational identification positively moderated the relationship between perceived underemployment and task crafting. Moreover, the authors demonstrated that creativity and OCB are behavioural outcomes of task crafting, empirically investigating the yet only theoretically explored (Hornung, Rousseau, Glaser, Angerer, & Weigl, 2010) connection between job crafting, creativity, and OCB.

2.6.3. Potential negative outcomes of job crafting

Although the above findings have indicated overwhelmingly positive outcomes in relation to job crafting, the behaviours might also result in negative or dysfunctional consequences at an individual, team, or organizational level. There is a possibility of negative consequences and side effects if the individual goals are counter to the goals of

the organization. Employees may use job crafting to reduce tasks that are stressful or difficult and when these tasks are necessary for ideal performance, job crafting can result in decreased performance of the employee (Leana et al., 2009). Moreover, job crafting can result in depleting personal resources if the individual's job crafting behaviours mean taking on additional responsibilities or working extra hours. Furthermore, employees might experience frustration if the planned alterations in task or relational boundaries do not work out as intended, and do not result in a job more suitable for the individual's needs and values (Wang, Demereouti, Bakker, 2017).

Berg, Wrzesniewski, & Dutton (2010) examined how individuals respond when they are working in an occupation that does not fit their passion, or calling. The researchers found that employees may experience stress and frustration when pursuing their unanswered calling through job crafting. Demereouti, Bakker, and Halbesleben, (2015) found that specific daily job crafting behaviours were positively related to negative workplace behaviours such as hiding mistakes and gossiping. Moreover, Petrou, Demerouti, and Schaufeli (2015) found job crafting behaviours with the aim of reducing or avoiding work tasks to be an ineffective coping strategy for employees who are already exhausted.

Employees can have different ways and strategies to craft their job, but not all of these crafting behaviours will lead to positive consequences or achieve their intended goal, as job crafting behaviours are voluntary and not part of the formal job description. However, my PhD research aims to add to job crafting research from a positive psychology perspective, investigating specific job crafting behaviours with a prosocial intent, with theorized positive outcomes.

2.6.4. An emerging different conceptualization of job crafting

The previous sections describe research on job crafting that built on the framework of Wrzesniewski and Dutton (2001). However, in 2010 Tims and Bakker introduced a new perspective on job crafting that is largely different from the original job crafting framework, and triggered substantial research attention, especially from European scholars. Tims and Bakker (2010, p.174) redefined job crafting as “the changes that employees may make to balance their job demands and job resources with their personal abilities and needs”, and proposed the JD-R perspective to job crafting research. The focus of this model is the well-being and effectiveness outcomes of two types of specific work conditions. These two characteristics are job demands and job resources. Job demands “refer to those physical, social or organisational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (Tims & Bakker, 2010, p.3.). Job resources “refer to those physical, psychological, social or organisational aspects of the job that, (1) may be functional in achieving work goals, (2) may reduce job demands and the associated physiological and psychological costs and (3) may stimulate personal growth and development” (Tims & Bakker, 2010, p.3.). Tims and Bakker (2010) critique the framework of Wrzesniewski and Dutton (2001), and argue that the framework is too vague and general. Tims and Bakker (2010) propose that employees may alter their levels of job demands and resources by engaging in seeking behaviours in order to align working conditions with their own abilities and preferences. The JD-R approach challenges the original concept of job crafting, and proposes a new approach. According to the JD-R model, job crafting is a process through which employees seek to maximise their job resources and minimise their job demands, essentially balancing the two. However, as accurately noticed by Suddaby (2010), when researchers apply an existing construct to a

new empirical context, they often change its meaning. The JD-R conceptualization of job crafting is different from the original job crafting theory, and one can argue that the researchers ‘muddied the waters’ around the fundamental intellectual foundations of the concept by applying a pre-existing model to change job crafting theory

As noted above, the reconceptualization of Tims and Bakker (2010) attracted a large volume of research attention, and a number of the quantitative studies have explored the job crafting concept based on the JD-R model (e.g. Tims & Bakker, 2010; Tims, Bakker, & Derks, 2012), with measures developed to capture these specific behaviours. As an example, Tims, Bakker, and Derks (2012) developed a popular 21-item measure, namely the Job Crafting Scale, representing four subscales reflecting their conceptualization within the JD-R framework: increasing social job resources, increasing challenging job demands, and decreasing hindrance job demands. Nielsen and Abildgaard (2012) also developed a 15-item scale investigating five job crafting dimensions based on the JD-R framework, namely the Job Crafting Questionnaire (JCRQ). The five dimensions are: increasing challenging demands, decreasing social job demands, increasing social job resources, increasing quantitative demands, and decreasing hindrance job demands.

Although the JD-R conceptualization of job crafting became popular and is being followed up by substantial amount of research studies (e.g., Tims, Bakker, & Derks, 2013; Petrou, Demerouti, & Schaufeli, 2015), the two conceptualizations are fundamentally different in terms of their definition, motivation, and the target and type of job crafting behaviours. The overview of these differences is presented in *Table 2*, adapted from Wang, Demerouti, and Bakker (2017). Based on the JD-R approach, job crafting refers to the processes through which job-holders balance their job resources and their job demands. In contrast, according to Wrzesniewski and Dutton (2001, p. 179), job crafting

is about employees “shaping their impressions of what is and is not part of the job“, and redefining the job to suit their strengths and motivations (Berg, Wrzesniewski & Dutton, 2010). Moreover, the JD-R job crafting conceptualization neglects the aspect of cognitive crafting. Cognitions about work play an important role in shaping one’s work experiences, especially in standardized jobs where there is limited scope to alter one’s job. Furthermore, through cognitive crafting, employees may appreciate the broader effects of their job and recognise the impact their job holds in their life. I argue, that studies that frame job crafting within the foundations of the JD-R model (Bakker & Demerouti, 2007) mainly provide insights into the Job Demands-Resources theory, but not into the job crafting theory of Wrzesniewski and Dutton (2001). My PhD research aims to advance the original job crafting theory, hence the conceptual framework introduced and described in Chapter 3 is based on the three dimensional approach.

Table 2: The differences between the dominant job crafting conceptualizations (adapted from Wang, Demerouti, & Bakker, 2017)

<i>Job crafting perspectives</i>	<i>Definition</i>	<i>Purpose and motivation</i>	<i>Target of crafting</i>	<i>Types of crafting</i>
Wrzesniewski and Dutton (2001)	“...the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p. 179)	<ul style="list-style-type: none"> • To assert control • To create a positive self-image • Connection to others 	<ul style="list-style-type: none"> • Task boundaries • Relational boundaries • Cognitive boundaries 	<ul style="list-style-type: none"> • Task crafting • Relational crafting • Cognitive crafting
JD-R Model (Tims and Bakker, 2010)	“...the changes that employees may make to balance their job demands and job resources with their personal abilities and needs” (p. 174)	<ul style="list-style-type: none"> • To improve person-job fit • To enhance work • To avoid health impairment 	<ul style="list-style-type: none"> • Job demands • Job resources 	<ul style="list-style-type: none"> • Increasing structural job resources • Decreasing hindering job demands • Increasing social job resources • Increasing challenging job demands

2.6.5. Research advancing the original theory

Addressing the limitations and criticism (Tims & Bakker, 2010) of the job crafting theory (Wrzesniewski & Dutton, 2001), a number of recent empirical papers focused on extending, developing, and advancing the framework. These studies went above and beyond the three dimensional categorization of Wrzesniewski and Dutton (2001) and examined different twofold directional levels of job crafting behaviours.

The pioneering research conducted by Laurence (2010) extended the three dimensional framework by differentiating expansion and contraction oriented job crafting behaviours. He conducted a study with 163 employee-supervisor dyads in five Japanese and Chinese knowledge based organizations, investigating the physical and relational/cognitive job crafting behaviours that individuals engage in. He also developed a scale based by modifying items from the job characteristics scales developed by Hackman and Oldham (1974) and Sims, Szilagyi, and Keller (1976), representing the dimensions adapted from Wrzesniewski and Dutton (2001), measuring physical, and relational/cognitive crafting. Laurence (2010) investigated how tendencies toward workaholism (e.g., enjoyment of work) affect these expansion and contraction oriented job crafting behaviours, and the moderating roles of different personal and contextual factors. More specifically, Laurence (2010) looked at how personality traits, political skill, and creative performance, along with the situational variables of work-family conflict, social support from managers and co-workers, and the perceived level of routinization of the job itself moderate the relationship between workaholism and job crafting (expansion and contraction oriented). Moreover, the study investigated how expansion and contraction oriented job crafting influence job satisfaction, organizational commitment, and job performance. Laurence (2010) found support for both expansion and contraction oriented job crafting. Furthermore, the findings demonstrated that

workaholism has an influence on job crafting, while the proposed contextual factors moderate this relationship. At last, job crafting was found to mediate the relationship between enjoyment of work and job performance. Laurence's (2010) study opened an avenue for further research studies by extending the job crafting framework. However, there are some noteworthy limitations of the research, due to the data being collected in a cross-sectional manner, hence limiting causal inferences as to the findings.

In a later study, Weseler and Niessen (2016) also examined twofold directional job crafting behaviours in a study of 131 employee pairs and their supervisors. The researchers investigated task, and relational crafting in terms of extending or reducing boundaries, and the influence of these actions on task performance. To measure job crafting behaviours, the researchers used a scale developed by Niessen, Weseler, & Kostova (2016), with 3 items representing each of the three job crafting dimensions based on the framework of Wrzesniewski and Dutton (2001). The items were modified to tap into the aspect of extending or reducing boundaries. Weseler and Niessen (2016) hypothesized that extending task and relational boundaries will be positively related to task performance, whilst reducing these boundaries will negatively influence task performance. As regard to cognitive crafting, the authors did not propose extending and decreasing directions, but hypothesized a positive relationship between cognitive crafting and task performance based on previous findings that showed that employees who had a broader view of their role were given higher supervisor ratings of performance (Parker, 2007). Weseler and Niessen (2016) found that extending task boundaries had a significant positive, while decreasing task boundaries had a non-significant relationship with supervisor ratings of performance. Regarding relational crafting, extending efforts did not significantly influence supervisor ratings, but decreasing social relationships resulted in lower ratings from supervisors. The study offers valuable contributions by advancing the

framework of Wrzesniewski and Dutton (2001), and providing further validation for a newly developed measure (Niessen, Weseler, & Kostova, 2016). However, the data is cross-sectional, hence one has to interpret the causal claims of relationships with caution.

Similarly, to the study of Weseler and Niessen (2016), Bindl, Unsworth, Gibson, and Stride (2018) argue that rather than general task, relational and cognitive crafting, individuals may engage in promotion oriented and prevention oriented forms of these behaviours. Moreover, the researchers built on the recommendations of Wrzesniewski et al. (2012), and included the dimension of skill crafting as a fourth dimension. The dimension of skill crafting has been proposed as an additional, important type of job crafting, reflecting the employees' self-initiated efforts to change their skills at work to improve performance and meaningfulness (Wrzesniewski et al., 2012). Bindl and colleagues (2018) argue that the promotion focused job crafting behaviours reflect an inclination or approach to eagerly add to and extend the existing job aspects, while the prevention oriented form of job crafting reflects changes that will prevent negative outcomes from occurring. The researchers found support for the proposed eight dimensional job crafting framework, and demonstrated that positive and negative work related moods and strength of the needs for relatedness, competence, and autonomy predict engagement in job crafting behaviours.

These three studies discussed in this section propose and confirm the idea that there are multiple layers within the concept of general job crafting, and add a valuable contribution to existing knowledge by investigating these more specific forms of job crafting. The findings of these studies suggest that the three dimensional general job crafting approach may be limited as it captures broad behavioural categories, and more subtle behaviours remain unexplored due to the more general focus. Proposing additional subsets of general job crafting is in line with my PhD research, as the key focus is on a

narrower subset of general job crafting behaviours, namely job crafting behaviours predicted by prosocial motivation, discussed in Chapter 3.

2.6.6. Team level job crafting

At last, as part of a review on job crafting, one should also consider studies that investigate job crafting on a team, rather than at an individual level. Although most studies on job crafting focused on individual level behaviours, a handful of studies went beyond by focusing on team or group level crafting behaviours, yielding relevant and valuable conclusions.

Based on the findings of the below discussed studies, job crafting does not only occur at an individual level, but it can happen at a team level as well. The increasing use of self-managing teams in organizations (Oldham & Hackman, 2010) requires the team members to work closely with each other and coordinate and communicate the planned actions amongst the team members. Hence, it is likely that in addition to individual crafting, team members can jointly make decisions on how to collaboratively alter task and relational boundaries at work.

The first study on team level crafting was conducted by Leana, Appelbaum, and Shevchuk (2009), introducing the idea of “collaborative job crafting” in a study of early childhood educators. The researchers refer to collaborative crafting as a process in which employees work together to collectively redesign their jobs. Leana and associates (2009) looked at both individual and team level job crafting and found that job crafting activities can be coordinated between team members, and differentiated individual and collaborative crafting and separate constructs. The researchers also developed a new measure in the frame of the study. Based on interviews, focus groups and previous work by Wrzesniewski (2003), Leana et al. (2009) developed a 6-item scale for the measure

the job crafting behaviours of childcare workers. The researchers assessed both individual and collaborative crafting with the same items, but instructed participants to answer collaborative crafting questions considering the behaviours in collaboration with co-workers in their classrooms. Using the newly developed scale, Leana and colleagues (2009) found that teachers who engaged in collaborative job crafting were more likely to perform better than those who did engage in less collaborative crafting. In addition, the findings of the study showed that collaborative crafting predicted higher levels of job satisfaction, organizational commitment, and care provision.

In another study, McClelland, Leach, Clegg and McGowan (2014) examined collaborative crafting in 242 call centre teams, and collected performance ratings from the supervisors of the teams. Due to the organizational setting being call centres, the focus of the study was on teams with limited decision-making responsibilities and narrowly defined tasks. According to Wrzesniewski and Dutton (2001), under these conditions, the need for control is not likely to be met, thus this can result in increased motivation to craft. The motivation to craft ‘...most often will result from situations in which employees feel that their needs are not being met in their job as it currently stands’ (Wrzesniewski & Dutton, 2001, p. 183). McClelland et al. (2014) found that collaborative crafting relates positively to team efficacy, team control, and team interdependence, which in turn were found to relate positively to work engagement and to independent ratings of team performance. Although the model of McClelland et al. (2014) fits the data well, other researchers propose that work engagement is a predictor and not outcome of job crafting (Bakker, Albrecht, & Leiter, 2011). It is likely that both propositions are correct and the relationship between job crafting and work engagement is reciprocal (McClelland et al., 2014). My research will extend our understanding of this relationships by proposing work engagement as an outcome variable of Study 1b, outlined in Chapter 4.

Finally, building on the JD-R conceptualization, a study by Tims, Bakker, Derks, and Van Rhenen (2013) investigated team level crafting with data collected from 525 individuals working in 54 teams working in occupational health services. Tims and colleagues (2013) found that team level job crafting positively relates to team and individual performance through team work engagement. However, the contributions of the study are weakened by the data being entirely self-report.

To sum up, the studies by Leana et al. (2009) and McClelland et al. (2014) further validate the job crafting theory of Wrzesniewski and Dutton (2001), although both studies primarily focussed on the task dimension as the most salient form of crafting. Moreover, the implications regarding the relationship between job crafting and performance increases the practical relevance of job crafting for organizations. Although my research is focusing on individual level crafting behaviours, in Chapter 6 I will elaborate on a specific form of team level crafting as a potentially prolific future research avenue.

2.7. Chapter conclusion

Chapter two first outlined a brief historical overview of key job design theories, and then elaborated on the increasing focus on proactivity at the workplace, leading to the emergence of the job crafting framework and theory. The chapter discussed the original job crafting framework (Wrzesniewski & Dutton, 2001) in detail, before moving on to elaborate on empirical studies building on the theory. I outlined studies on a variety of outcomes of job crafting, both positive and negative. Next, I described a ‘rival’ conceptualization of job crafting, which emerged recently (Tims & Bakker, 2010), and frames job crafting based on the JD-R model. In addition to outlining both conceptualizations, I compared the two based on their definition, purpose, target, and

dimensions. Last, I discussed studies advancing the original framework, both at an individual and team level.

It is apparent, that there have been considerable amount of research conducted on job crafting, and the research attention paid to the concept is ever increasing. However, there is an underexplored research avenue of examining the social side of crafting. More specifically the prosocial aspect of crafting has been overlooked in the crafting literature. There have been some substantial changes in the nature of work over the past decades, and social interactions are now considered to be a key factor in today's contemporary organizations (Oldham & Fried, 2016). A much larger percentage of the workforce being employed in the service sector rather than manufacturing due to the overall shift to a service and knowledge economy. These changes resulted in the increasing use of teams in organizations, which involves a significant amount of interactions. Thus, investigating subcategories of job crafting behaviours that are driven by more specific social factors, such as prosocial motivation, could add a valuable contribution to existing knowledge in the area. Due to this reasoning, my thesis aims to add to existing knowledge and understanding by focusing on the prosocial side of crafting and examining a specific subset of job crafting behaviours, elaborated on in the next chapter.

CHAPTER 3: INTRODUCING PSJC AND THE CONCEPTUAL FRAMEWORK

"There are always flowers for those who want to see them."

- Henri Matisse

3.1. Chapter introduction

For most people, what makes life worth living comes down to the relationships they have with other people, such as family, friends, and loved ones. However, too often work relationships are not included on this list. Yet, we spend most of our time at work, and work relationships have a central role in not only how the work gets done, but also the overall quality of our lives. Thus, having a proactive and positive approach to improving our work relationships and our work experience in general could have beneficial consequences to our lives (Ragins & Dutton, 2007). The quote above from Henry Matisse the well-known French artist reflects the view of proactively looking for opportunities, and acting on these in order to find positive meaning, or achieve positive outcomes. This chapter describes a form of a prosocial organizational behaviour that reflects proactively looking for opportunities to alter, construct, and modify the boundaries of one's job, in order to improve the work experience of the actor.

In Chapter 2, I described the theoretical foundations of job crafting, discussed related proactive concepts, and existing research in the area. In this chapter I will introduce and discuss a sub-category of job crafting that captures job crafting behaviours driven by prosocial motivation, namely Prosocial Job Crafting (PSJC). First, I will define and describe the concept, and elaborate on the distinction between PSJC and job crafting. Second, I will discuss PSJC as a form of prosocial organizational behaviour and explain how it is different from related prosocial organizational behaviour concepts. Third, the chapter moves on to the question of how to measure PSJC, and critically evaluate existing

measures of job crafting and prosocial concepts. Last, I will introduce and describe the theoretical framework of my PhD research.

3.2. The social, relational, and prosocial aspects of job design

Although there are examples from even the earliest work on job design recognizing the importance of social structures (Trist & Bamforth, 1951), as outlined in section 2.1, there was a general tendency in job design research to focus on the task variables. Researchers have overlooked the importance of the social attributes for decades following the publication of JCM (Hackman & Oldham, 1976), due to not considering them “essential for fostering internal work motivation” (Hackman & Oldham, 2010, p. 467). However, due to the fundamental changes that occurred in the world of work, the importance of social factors cannot be overlooked.

In the last 15 years we can observe a new research pathway emerging, focusing on the social and relational side of job design. Due to the substantial changes in the nature of work over the past decades, social interactions are considered to be a key factor in today’s contemporary organizations (Oldham & Fried, 2016). The overall shift to a service and knowledge economy resulted in a larger percentage of the workforce being employed in the service sector than ever before. This tendency and the increasing use of teams in organizations involves a considerable amount of interactions with both colleagues and service recipients, therefore managing and developing social interactions became a key aim on the agenda of 21st century organizations (Oldham & Fried, 2016). To address these changes, recent research on job characteristics incorporates the aspect of social dimensions.

Although the social, relational, and prosocial aspects of one’s work are related (e.g., increased social interactions at work will provide more opportunities for

prosociality), these terms are not the same. It is possible for prosocial work to involve only minimal social interaction or even to be solitary, particular if the potential recipient of the prosocial behaviour is external to that person's organization (e.g., a scientist developing a new medicine to benefit patients in the wider world, or a charity worker setting up a website for donations while working from home). Moreover, increased levels of social characteristics at work do not necessarily mean that the individuals will also display prosocial behaviours.

Morgeson and Humphrey (2006) emphasize the role of social attributes and suggest that social dimensions such as interactions outside the organization, social support, and initiated and received interdependence play an important part in increasing the motivation and well-being of employees. Furthermore, Humphrey, Nahrang, and Morgeson's (2007) meta-analysis examined the relative effects of four social constructs, namely *interdependence*, *social support*, *feedback from others*, and *interactions outside the organization*. The results showed that these four social variables had an influence on subjective performance assessment, job satisfaction, and turnover intentions. Due to the changes in the world of work and the increased research attention, now it is generally accepted by organizational scholars that the social and relational context of work can play a key role in shaping the work environment, experiences, and behaviour of the employees, and its importance is increasingly recognized by organizational scholars (e.g., Grant, 2007; Grant et al., 2007; Bolino & Grant, 2016).

In parallel with the increased research attention on relational and social aspects, there has been an expanding research interest on prosocial workplace behaviours, and it has become a widely accepted assumption that it is one of the primary goals of employees to make a positive difference (Bornstein, 2004; May, 2003; Quinn, 2000; Shah, Cross & Levin, 2015). Existing research on the motivation to make a positive difference largely

focussed on how the dispositions of employees may shape this motivation. Previous studies have investigated how the work orientation of employees may play a role on the degree to which employees want to make a positive difference. Wrzesniewski, McCauley, Rozin, and Schwartz (1997) found that employees who see their work as a calling want their efforts to make the world a better place, however, employees with other work orientations usually do not. Other studies investigated the role of altruistic values (Meglino & Korsgaard, 2004; Rioux & Penner, 2001) and benevolent dispositions (Huseman, Hatfield, & Miles, 1987), but limited research looked at the role of work context and job design prior to the seminal paper of Grant (2007). Grant (2007, p. 394) proposed that “the motivation to make a prosocial difference is an inherently relational phenomenon; interpersonal relationships both cultivate and result from the motivation to make a prosocial difference”. Grant (2007) outlined a novel framework of relational job design, focusing on the level of impact on, and contact with beneficiaries resulting in opportunities to make a positive difference for others.

Looking at relational job design from a job crafting perspective, there can be links drawn. According to Wrzesniewski and Dutton (2001), jobs are designed with relational boundaries, providing opportunities for employees to change their relationships, and consequently their work experiences and environments. Moreover, relational job design may promote: “cognitive job crafting by enabling employees to become aware of their impact and to redefine their work in terms of making a prosocial difference, and it promotes physical job crafting by motivating employees to incorporate new activities into their jobs in order to help beneficiaries” (Grant, 2007, p. 408). Relational job design may play a key role in enabling employees to engage in job crafting with a prosocial intent, and in turn, constructing identities as competent and socially valued individuals, who can recognize, seek, and create opportunities for impact (Parker, Wall, & Jackson, 1997).

Hence, I propose that investigating PSJC behaviours would add to current understanding of prosocial organizational behaviours ‘triggered’ by the social and relational aspects of one’s job.

3.3. Prosocial Job Crafting (PSJC)

Prosocial behaviours have been themes of interest for scholars in sociology, psychology, economics, and political science for centuries. However, organizational scholars have first turned their attention to the subject only in the early 1980’s (e.g., Bateman & Organ, 1983). Following the recognition of the importance of prosociality at work, and more specifically the significance of prosocial behaviours, research attention has shifted towards investigating the facilitation of the positive outcomes resulting from the intention to benefit others. More recently, scholars have started to focus on the role of job design and the work context in motivating employees to care for others at work, and studies have shown that the recognition of one’s prosocial impact at work increases effort and productivity (e.g., Grant, 2007; Grant, 2012). Furthermore, both qualitative and quantitative studies have shown that for many employees, making a positive difference in other people’s lives is one of the main purpose of their work (Colby, Sippola, & Phelps, 2001; Ruiz-Quintanilla & England, 1996; Bolino & Grant, 2016). Therefore, increasing the opportunities to have a positive impact on others and engage in prosocial workplace behaviours could be a crucial factor in establishing positive work meaning and work identities (Parker, Wall, & Jackson, 1997). As noted above, Grant (2007) suggests that jobs that allow some room to make a prosocial difference might trigger job crafting behaviours.

The examination of job crafting with a prosocial angle is particularly timely given the changes occurring within the economy, with an ever-growing shift towards services,

leaving organizations being ‘forced’ to meet the needs of their customers to succeed and survive (Oldham & Fried, 2016). The more frequent use of teams in a variety of industries resulted in a growing number of new working relationships, in which employees can express and experience prosocial behaviours (Hackman & Wageman, 2007; Shah, Cross, & Levin, 2018).

Moreover, in today’s uncertain job market, a significant percentage of people are likely to take on job roles that they did not necessarily desire, envisioned, and planned for, and proactive prosocial behaviours can be a fruitful way to improve and create meaningfulness in a variety of jobs. Although, jobs can differ in the degree to which they offer room to make a positive difference (Grant, 2008b), McClelland, Leach, Clegg, and McGowan (2014) found that even in positions with low levels of autonomy, individuals find ways to craft their jobs.

Recognizing fruitful connections between existing literature on job crafting and relational and prosocial job design gave the inspiration for developing the concept of ‘prosocial job crafting’. PSJC refers to the processes through which individuals modify their jobs’ task, relational, and cognitive boundaries to allow them act in a prosocial manner. I build on the definition of job crafting, and the general definition of Prosocial Organizational Behaviour (POB), namely a behaviour which the actor expects will benefit the person or people to whom it is directed (Brief & Motowidlo, 1986). Other scholars also noted that the concept of prosocial behaviour includes an assumption regarding the voluntary nature of the behaviour, and that the actor is performing the action without expecting rewards in return (Walster & Piliavin, 1972).

I propose that PSJC has three dimensions, namely task, relational, and cognitive PSJC. Similarly to job crafting, the task dimension of PSJC (TPSJC) reflects behaviours at a task level, and includes behaviours such as taking on additional tasks to benefit others,

introducing new approach to work tasks to benefit others, and choosing to learn new things to benefit others. Relational PSJC (RPSJC) includes behaviours like making an effort to understand the situation of others, and making an effort to spend time with others at work to benefit them. On the cognitive level (CPSJC), PSJC includes behaviours such as reminding oneself about the positive short or long term differences one's job can make to/for others at work, or thinking about the ways one's work positively impacts others at one's job. The behaviours captured by task, relational, and cognitive PSJC will be discussed in more details in Chapter 4, describing the scale development process for measuring PSJC.

I posit that these three dimensions are subsets of general task, relational, and cognitive job crafting, rather than entirely different and new types crafting. Wrzesniewski and Dutton's (2001) paper describes some examples of behaviours resembling PSJC, such as the example of hospital cleaners who actively cared for patients and their families, and integrated themselves in tasks in addition to cleaning to help the patients, or the example of nurses who took responsibility for all information that had the potential to improve patient care. However, this specific subset of job crafting behaviours driven by prosocial motivation has not yet been explored in detail, as these behaviours have not yet been differentiated within general job crafting. I propose that wrapping PSJC under broader and more general conceptualizations is not sufficient, and I argue that this specific subset of behaviours should be examined separately, as a distinct sub-category within job crafting behaviours.

One could also argue, that PSJC falls within the category of relational job crafting, since the focus of PSJC behaviours are other individuals. However, the definition of relational job crafting is much vaguer as it broadly refers to behaviours that aim to change the quality and/or amount of interaction with others. As Wrzesniewski and Dutton (2001,

p.185.) noted: “employees often can decide how frequently they wish to interact with others on the job and can also help determine the quality of those interactions.” Slemp and Vella-Brodrick (2013, p. 127.) describe relational crafting even more broadly, as “exercising discretion about whom one interacts with at work (e.g., making friends with people with similar skills or interests)”. Example items from the relational job crafting scale of Slemp and Vella-Brodrick (2013, p.146.) are: “Make an effort to get to know people well at work”, “Organise or attend work related social functions”, or “Make friends with people at work who have similar skills or interest”. Thus, relational job crafting can include a variety of behaviours that do not tap into the more specific definition of PSJC. Moreover, general job crafting is theorized to have three main antecedents, namely the need for control over work, the need for human connection, and the need for creating a positive self-image (Wrzesniewski & Dutton, 2001). However, I propose that in addition to the three already recognized needs, the primary motivation for PSJC behaviours is prosocial motivation. Although the need for human connection and prosocial motivation may overlap in some of their characteristics, the two concepts are not the same. The need for human connection or belonging is a primary human need, whilst scholars conceptualize prosocial motivation at a state or trait level (Bolino & Grant, 2016). According to Baumeister and Leary (1995, p. 497.), the need for human connection and belongingness is a universal need that drives humans to “form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships”. People are driven to build connections with others to bring meaning into their lives. To satisfy the need for connection, two conditions should be met. First, there is a criterion for frequent, and pleasant interactions with other people. Second, these interactions should happen in a stable and enduring environment, in which people have a concern for each other’s well-being (Baumeister & Leary, 1995). Regarding prosocial

motivation, Grant and Bolino (2016, p. 4) define the concept as “the desire to benefit others or expend effort out of concern for others”. Although both concepts include an aspect of caring for one’s well-being, but the direction of this concerns is different. The need for human connection represents a need for others to care for our own welfare, and is not necessarily prosocial in nature. On the other hand, prosocial motivation primarily represents our need to care for others, although it may involve both concern for others and concern for oneself. The need for belongingness is a more pervasive human need that is crucial for humans to satisfy in order to avoid negative consequences, such as deprivation, and a variety of physical and mental illnesses (Baumeister & Leary, 1995). In contrast, prosocial motivation reflects the wish to engage in actions in order to benefit others. Not satisfying one’s prosocial motivation can also lead to negative consequences such as lack of meaning, and fulfilment. However, these negative outcomes are less severe as the consequences of not satisfying one’s primary need for belongingness (Thorne, Kuo, Armstrong, McPherson, Harris, & Hislop, 2005).

In addition to being a novel and timely topic, I propose that PSJC has positive individual and organizational outcomes as it is a combination of two concepts, both with beneficial consequences. In addition to the positive outcomes of job crafting discussed in Section 2.6.2 (e.g., increased performance and well-being), prosocial behaviours have several beneficial consequences as well. The motivation to make a prosocial difference is not only a psychological incentive, but also a powerful driving force behind the employees’ actions, efforts and identities. It increases effort (Mitchell & Daniels, 2003), persistence (Batson & Powell, 2003), and also has consequences regarding one’s identity by making employees feel competent, increase self-determination, and social worth (Locke & Latham, 2002).

Despite the relevance of PSJC behaviours, after an extensive literature review using a number of databases such as Google Scholar and Web of Science, with keywords such as ‘job crafting’, ‘prosocial behaviour’, and ‘helping’, only one study was identified by Grant, Alexander, Griesbeck, Jaffe, Kagan, Kamin, Kemerling, Long, Nagel, Paulding, and Swayne (2007) that examined a related phenomenon. Grant and colleagues (2007) investigate behaviours similar to PSJC with employees in service occupations (dentists, hairstylists, personal trainers). Grant and associates (2007) found that job holders keenly and proactively craft their interactions with their service recipients in order to feel like their work is making a meaningful positive impact on their customers. The study outlined a variety of behaviours that employees engage in to accomplish this, such as expanding their roles above basic functions and tailoring services to have a positive impact (Berg, Dutton, & Wrzesniewski, 2008). However, the focus of the study is more on interactions, and the relational element of these behaviours. Moreover, the study was limited to occupations in which the individuals worked independently, mostly interacting one-on-one with customers. My PhD research aims to address these limitations by investigating TPSJC, RPSJC, and CPSJC behaviours in an organizational setting where the employees have the opportunity to interact with a variety of individuals such as colleagues and customers in their daily work.

As noted above, PSJC represents a form of prosocial organizational behaviour through which individuals voluntarily and proactively change their jobs’ boundaries to put themselves in a position where they can act/think in a prosocial manner. In their recent review on prosociality at work, Bolino and Grant (2016) propose four key dimensions along which prosocial organizational behaviours can be described, namely *genesis*, *target*, *goal*, and *resource*. First, in terms of their genesis, prosocial behaviours can be reactive or proactive (Grant & Ashford, 2008; Klotz & Bolino, 2013). Second, the target

of prosocial behaviours can range from specific individuals to the whole organization (Williams & Anderson, 1991) and from present to future generations (Wade-Benzoni & Tost, 2009). Third, according to Van Dyne, Cummings, and McLean Parks (1995), the goal of these prosocial behaviours can be challenging (changing the status quo) or affiliative (maintaining the status quo). Fourth, prosocial behaviours can incorporate different resources, such as informational, social, or personal (Foa, 1993). Next, I will discuss all four of these dimensions applied to PSJC.

First, in regard to its *genesis*, PSJC is primarily proactive in nature, as it reflects the employees proactively altering the boundaries of their job. Although according to Anderson and Williams (1996) approximately 75% of helping behaviours occur reactively, I propose that PSJC is dominantly proactive as these behaviours are proactively initiated by individuals. When engaging in PSJC, individuals deliberately alter aspects of their job in order to put themselves in a position where they can be more prosocial. It is probable that the three dimensions of PSJC can differ in terms of the level of proactivity and reactivity they reflect. RPSJC and CPSJC are mainly proactive in nature. RPSJC incorporates behaviours such as proactively making an effort to spend with others at work, while CPSJC includes behaviours such as thinking about the positive impact one's job has on others. It is difficult to imagine that one would engage in such behaviours as a response to a request from others, especially when it comes to CPSJC. On the other hand, TPSJC can have elements of reactivity, but instead of being specifically asked to display TPSJC, individuals more likely perform these behaviours as a reaction to realizing the need of others, for example not waiting to be asked but proactively offering support with job tasks to an overwhelmed colleague.

Second, the *target* of PSJC behaviours can be a variety of individuals, depending on the opportunities of interaction at specific job roles. PSJC is not restricted to

colleagues, as these behaviours can be directed towards customers, service recipients, and any additional individuals one interacts with at the workplace as well. Belschak and Den Hartog (2017) recently published a review on the target of proactive behaviour. The researcher differentiated between pro-organizational, pro-self, and prosocial proactive behaviours. They define pro-organizational behaviours as “proactive behaviours that focus on the organization as their target” (p. 173.), such as whistleblowing, or taking charge. Belschak and Den Hartog (2017) provide a broad definition for prosocial proactive behaviours, referring to them as behaviours that are “directed at one’s direct work group, team, or colleagues” (p.173.), whilst they define pro-self proactive behaviours as behaviours that aim to further the individual interests and goals of the employee. The researchers propose that job crafting is an example of these pro-self proactive behaviours. However, I argue that PSJC being prosocial in nature taps into both the pro-self and prosocial dimensions. Based on Colby and colleagues (2001) and Ruiz-Quintanilla and England (1996), benefitting other people is a primary goal for many employees and it can contribute to a sense of meaning and a more positive self-image for the individual engaged in PSJC behaviours. PSJC can be looked at as a form of prosocial proactive behaviour by crafting tasks and relationships to benefit colleagues and service recipients. But partly, PSJC behaviours are pro-self, as they satisfy the prosocial motivation of the individual engaging in such behaviours. At last, PSJC can have an unplanned aspect of being pro-organizational as it is possible that helping one’s colleagues and customers can have positive organizational outcomes as well.

Third, PSJC can have somewhat ‘dual’ *goals* according to the Theory of Prosocial Behaviour (Batson, 1990). Batson (1990) experimentally distinguished two underlying motivations in terms of the end goal they represent: egotistic and altruistic motivation. Egotistic motivation reflects the desire to receive reward for helping another or the desire

to reduce one's unpleasant or negative emotions. On the contrary, altruistic motivation reflects the desire to help others with their needs, and putting others first. Whilst egotistic motivation drives individuals to look out for their own interest, altruistic motivation prioritizes the need of others. Although Sosik, Jung, and Dinger (2009, p.400.) challenged this idea and argued that "if the needs of others is the ultimate goal, then helping others is an altruistically motivated behaviour, regardless of whether one also personally benefits from the positive outcome", my PhD research is in line with the propositions of Batson (1990). In addition to helping others, the primary goal of PSJC is to satisfy one's prosocial need through proactively altering the boundaries of one's job, in order to create a more meaningful work experience. As opposed to altruism, improving the welfare of others through PSJC is not necessarily "an end unto itself" (Lemmon & Wayne, 2015, p.132), as personal need satisfaction is a key driver for the individual engaging in PSJC. My research also builds on the work of De Dreu (2006) and De Dreu and Nauta (2009) who found empirical evidence that other-orientation and self-concern are sovereign constructs and that people may be both self-concerned and other-oriented simultaneously. Hence, categorizing this subset of job crafting behaviours as 'Altruistic job crafting' is not accurate. The goal of altruistic behaviours (Batson, 1990) is solely to contribute to others and improve their situation, rather than calculating personal benefits. Whilst prosocial motivation is "distinct from purely altruistic (self-less) motives or instrumental (self-serving) motives, and may involve both concern for others and concern for oneself" (Bolino & Grant, 2016, p. 5.). Thus, the term 'prosocial' captures the goal of PSJC behaviours, as the term also incorporates goals driven by self-interest in addition to concern for others.

Fourth, PSJC behaviours can draw on a variety of *resources*, such as personal, social, and informational. As an example, TPSJC may tap into all three types of resources.

The action of taking on an additional task in order to benefit others can utilize both personal, social, and informational resources, as the individual has to have the information, skills, and knowledge in order to complete the additional task.

3.4. The distinction between PSJC and relevant prosocial concepts

Scholars have started to realize in the last fifteen years that today's world requires a serious rethink about current business strategies (Pirson & Lawrence, 2010), and a shift is needed towards a more prosocial approach (Guinot, Chiva, & Mallén, 2016). According to Karakas (2010), one of the consequences of rethinking business strategies is a paradigm shift from self-centeredness to interconnectedness, as businesses move away from self-interest to service and stewardship. Consistent with this trend, scholarly interest has been directed to being prosocial at work, which consistently have been found to improve organizational, group, and individual effectiveness (Bailey, Madden, Alfes, & Fletcher, 2017). As an example Podsakoff, Blume, Whiting, and Podsakoff (2009) conducted a meta-analysis of 168 studies with more than 51,000 employees and demonstrated that prosocial behaviours matters as much for performance evaluations and promotions as doing the job well.

As discussed in section 3.3, PSJC is a subcategory of job crafting. Thus, it is evident that there is an overlap between the two concepts, and an overlap with other proactive constructs (e.g., personal initiative, proactive personality), as discussed in section 2.5. In addition to being a subset of job crafting, PSJC is also a form of Prosocial Organizational Behaviour (POB). Due to the ever growing literature on prosocial, extra role, and citizenship behaviours (e.g., Borman & Motowidlo, 2014), it is important to discuss related prosocial concepts and their distinction from PSJC. POBs are actions that encourage or protect the welfare of others (e.g. colleagues, customers, organizations).

Extensive research has demonstrated the importance of these behaviours in organizations, and found that there are a number of organizational, group, and individual level benefits of engaging in prosocial behaviours (Podsakoff, Podsakoff, MacKenzie, Maynes, & Spoelma, 2014). The vast majority of studies on prosociality at the work have focussed on Organizational Citizenship Behaviours (OCBs) as the most prototypical and dominant type of POBs (e.g., Organ, Podsakoff, & MacKenzie, 2006).

There are a number of different types of POBs in addition to *OCBs*, such as *mentoring* (e.g., Allen, 2003; Noe, Greenberger, & Wang, 2002), *knowledge sharing* (e.g., Argote, McEvily, & Reagans, 2003), or *compassion organizing* (Dutton, Worline, Frost, & Lilius, 2006). However, according to Bolino and Grant (2016), despite their evident prosocial nature, researchers sometimes do not consider characterizing some of these behaviours as POBs. Consequently, Bolino and Grant (2016) argue that broadening the scope of prosocial behaviour may result in a better conceptualization and understanding of the antecedents and outcomes of these behaviours.

There can be overlaps observed between PSJC and all of the above noted prosocial concepts. All of these behaviours are prosocial in nature, as they share an emphasis on benefitting others and concern for others. However, the distinctions between the concepts can be observed at first glance in the level of specificity of the definitions, the narrow or broad nature of the concepts, and the type of behaviours they incorporate. Moreover, there can be distinctions observed in terms of the *genesis*, *target*, *goal*, and *resource* of the constructs. Next, I will provide an overview outlining the five key POB concepts and their distinction from PSJC.

3.4.1. Prosocial Organizational Behaviour and PSJC

The overarching concept of Prosocial Organizational Behaviour (POB) was introduced by Brief and Motowidlo (1986). The researchers define POB as a behaviour which is “(a) performed by a member of an organization, (b) directed toward an individual, group, or organization with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed (p. 711.)” Brief and Motowidlo (1986) describe 13 specific forms of POB which vary along 3 dimensions: whether they are functional or dysfunctional for organizational effectiveness, directed toward an individual or organizational target, and prescribed or not as part of one's organizational role. The thirteen behaviours listed by the researchers are: (1) Assisting co-workers with job-related matters, (2) Assisting co-workers with personal matters, (3) Showing leniency in personnel decisions, (4) Providing services or products to consumers in organizationally consistent way, (5) Providing services or products to consumers in organizationally inconsistent ways, (6) Helping consumers with personal matters unrelated to organizational services or products, (7) Complying with organizational values, policies, and regulations, (8) Suggesting procedural, administrative, or organizational improvements, (9) Objecting to improper directives, procedures, or policies, (10) Putting forth extra effort on the job, (11) Volunteering for additional assignments, (12) Staying with the organization despite temporary hardships, (13) Representing the organization favourably to outsiders.

There are overlaps between the behaviours included in the concepts of POB and PSJC, such as assisting colleagues and customers with job related or personal matters. However, the definition of POB is much more general, and incorporates a range of other prosocial behaviours unrelated to PSJC. PSJC behaviours are primarily proactive and voluntary in

nature, there are no such specifications for POBs. According to the definition of POB (Brief & Motowidlo, 1986), employees perform POB with the sole intention to promote the “welfare of the individual, group, or organization toward which it is directed” (p. 711.). However, in addition to promoting the welfare of others, PSJC is a primarily a strategy for the individual to proactively put him or herself in a position where he/she can act in a prosocial manner, in order to satisfy his/her prosocial need, and create a more meaningful and fulfilling work experience for him/herself.

In terms of the four dimensional classification of Bolino and Grant (2016), the *genesis* of POBs is mainly reactive (Anderson & Williams, 1996), and the *target* of POBs can range from an individual, group, or the whole organization, depending on the specific behavioural example. However, POBs are primarily pro-organizational in nature, and the definition does not point out a focus on pro-self. The *goal* of POBs can be either affiliative (e.g., complying with organizational values, policies, and regulations), or challenging (e.g., objecting to improper directives, procedures, or policies), as POB behaviours can aim to both target or challenge the status quo (Van Dyne et al., 1995). Last, regarding to the *resources* used by POBs, these can be informational (e.g., suggesting procedural, administrative, or organizational improvements), social (e.g., assisting co-workers with personal matters), or personal (e.g., showing leniency in personnel decisions). It is clear from the definition and the four dimensional description of POB that the concept is much more general and broad compared to PSJC. It incorporates both affiliative (maintaining the status quo) and challenging (changing the status quo) behaviours (Bolino & Grant, 2016). Examples for affiliate behaviour are *providing services or products to consumers in organizationally consistent way, or complying with organizational values, policies, and regulations*. Examples for challenging behaviour are *suggesting procedural, administrative, or organizational improvements, or objecting to improper directives,*

procedures, or policies. On the other hand, PSJC is primarily affiliative in nature. Moreover, PSJC does not reflect behaviours that aim to primarily benefit the organization, although this could be a perhaps ‘unintended’ positive outcome of the behaviours. The individual is firstly looking out for his/her need satisfaction, followed by considering how his/her actions would benefit other individuals. Contrarily, there are several examples of POB with the aim to improve the organization, such as complying with regulations, and suggesting organizational improvements.

3.4.2. Organizational Citizenship Behaviour and PSJC

As noted above, OCB is the most prominent example of POBs, and has received the most research attention from several prominent organizational scholars (e.g., Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Organ, Podsakoff, & MacKenzie, 2006). OCB can be defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization. By discretionary, we mean that the behavior is not an enforceable requirement of the role or the job description, that is, the clearly specifiable terms of the person’s employment contract with the organization; the behavior is rather a matter of personal choice, such that its omission is not generally understood as punishable” (Organ, 1988, p. 4). Similarly to POB, OCB (Podsakoff et al., 2000) has a broader and more general definition, encapsulating a range of behaviours that are out of the scope of PSJC. Bolino (1999) posits that OCBs generally branch from two motivational bases: (1) disposition/ personality and/or (2) job attitudes (Organ, 1990; Organ & Ryan, 1995). Bolino (1999) states that regarding disposition/ personality, “OCBs reflect an individual's predisposition to be helpful, cooperative, or conscientious” (p. 82), while “the relationship between OCB and job attitudes is rooted in social

exchange theory, that is, employees engage in OCBs in order to reciprocate the actions of their organizations.”

Research on OCB was originally influenced by the work of Katz (1964), who proposed that OCBs are critical to organizational functioning, and argued that "an organization which depends solely upon its blueprints of prescribed behavior is a fragile social system" (1964, p. 132). Katz (1964) established five underlying dimensions of OCBs, namely (1) protecting the organization (2) cooperating with others, (3) self-training (4) volunteering constructive ideas, and (5) maintaining a favourable attitude toward the company. Building on Katz's (1964) categorization, in a meta-analysis on OCB Podsakoff and colleagues (2000) organized OCB behaviours into seven themes: (1) helping behaviour, (2) sportsmanship, (3) organizational loyalty, (4) organizational compliance, (5) individual initiative, (6) civic virtue, and (7) self-development. *Helping behaviour* is an important subset of OCB, and virtually all scholars in the area have done some work on it (e.g., Borman & Motowidlo, 1997; George & Brief, 1992; Organ, 1988, 1990; Smith, Organ, & Near, 1983; Van Scotter & Motowidlo, 1996). Conceptually, helping behaviour refers to “voluntarily helping others with, or preventing the occurrence of, work related problems” (Podsakoff et al., 2000, p. 516.). In regard to sportsmanship, Organ (1990, p. 96) defined this facet of OCB as “a willingness to tolerate the inevitable inconveniences and impositions of work without complaining”. The concept of *organizational loyalty* “entails promoting the organization to outsiders, protecting and defending it against external threats, and remaining committed to it even under adverse conditions” (Podsakoff et al., 2000, p. 517.). *Organizational compliance* refers to an individual's acceptance and internalization of the organization's regulations, rules, and procedures. This results in adherence to them, even when no one observes the compliance. Compliance is regarded as a form of citizenship behaviour because although

all employees are expected to obey company rules, regulations, and procedures, many individuals simply do not. *Individual initiative* involves “engaging in task-related behaviors at a level that is so far beyond minimally required or generally expected levels that it takes on a voluntary flavour” (Podsakoff et al., 2000, p. 524.). Such behaviours can include voluntary acts of innovation and creativity with the aim of improving the organization’s performance, persisting with extra enthusiasm to accomplish one’s job, volunteering to take on additional responsibilities, and encouraging other employees to do the same. In short, through individual initiative, employees go “above and beyond” the call of duty. *Civic virtue* represents an individual level interest in the organization as a whole. Civic virtue can incorporate behaviours such as willingness to participate actively in the organization’s governance (e.g., attend meetings, express one’s opinion about what strategy the organization should follow), monitoring the environment for threats and opportunities (e.g., keeping up with changes in the industry that might affect/improve the organization), and to generally look out for the organization’s best interests, even at great personal cost. The facet of *self-development* was identified by George and Brief (1992) as a form of citizenship behaviour. According to George and Brief (1992, p. 155.), self-development as part of OCB might involve “seeking out and taking advantage of advanced training courses, keeping abreast of the latest developments in one’s field and area, or even learning a new set of skills so as to expand the range of one’s contributions to an organization.” After reviewing these behavioural dimensions, it becomes clear that fundamentally, some of them appear to be more prosocial than others. As an example, the helping behaviour aspect is arguably more prosocial in nature than organizational compliance, which may or may not have a clear beneficiary.

A ‘simplified’ categorization of OCB by Bolino and Grant (2016) identified two main categories within OCB: affiliative and challenging OCBs. Similarly to affiliative

POB, affiliative OCBs, like helping and compliance, are intended to promote and maintain the status quo, while challenging behaviours such as voice aim to alter the status quo. Affiliate OCB involves behaviours that aim to maintain the status quo, through behaviours such as helping others with their work, cooperating with others at work, generating new ideas for doing work, being cheerful and neat, accepting orders without resentment, and doing high-quality work (Bateman & Organ, 1983). Challenging OCB behaviours on the other hand aim to change the status quo through actions such as speaking up with suggestions for improvement, or selling issues to top managers (Bashshur & Oc, 2015). Thus, the intent of several behaviours categorized as challenging OCB, is to benefit the organization, and to improve different aspects of the organization. However, comparing the concept with PSJC, the aim of PSJC is to actively change and tailor the boundaries of one's job, with a prosocial intent. As noted above, benefitting the organization is not an outcome that primarily drives PSJC behaviours. The intent behind PSJC is to construct one's job in order to create a meaningful work experience and positive work identity, while satisfying the prosocial motivation of the employee. PSJC is not simply about doing more or doing better for the organization, which is the primary focus of OCB.

As noted above, the OCB dimension of *helping behaviour* is the most related to PSJC. Helping behaviours have been described as an important subcategory of OCB by the majority of researchers in this area (e.g., Organ, 1988; George & Brief, 1992; Borman & Motowidlo, 1997; Van Scotter & Motowidlo, 1996), and it is defined as voluntarily helping others with, or preventing the occurrence of work-related problems (Podsakoff et al., 2000). Although there is an overlap due to the 'helping' nature of both helping OCB and PSJC, OCB helping is restricted to assisting with work-related problems, while PSJC incorporates assistance at the workplace with problems of all sources, e.g., personal

problems such as providing support to a co-worker who has an issue with a family member. Moreover, PSJC incorporate being prosocial to a wide range of individuals at work, and not just colleagues. Podsakoff and colleagues (2000) ‘broke-down’ the helping sub-dimension of OCB into a number of smaller behavioural categories, and some of these overlap with PSJC. Behaviours such as interpersonal helping (Moorman & Blakely, 1995), altruism, peace-making, cheerleading (Organ, 1988, 1990), or interpersonal facilitation (Van Scotter & Motowidlo, 1996). Below, I provide a brief overview of these more subtle facets, and highlight their distinction from PSJC.

Interpersonal helping refers to “helping colleagues in their jobs when such help is needed” (Moorman & Blakely, p.130.). Although, the overlap is clear between the concepts of interpersonal helping and PSJC as both behaviours incorporate the element of helping, interpersonal helping does not consider helping individuals other than colleagues, and only includes helping with job-related matters.

According to Organ (1988, 1990), *altruism* refers to voluntary actions that are directed to help a specific person with a work-related problem (Bolino, 1999). These behaviours can include getting or bringing materials that a colleague needs and cannot procure on his own, or helping a co-worker catch up with a backlog of work. However, this description is fairly incomplete according to the theory of Batson (1991). Batson (1991) states there is a very clear way of looking at altruism which distinguishes it from related but more egotistic forms of helping behaviours. Altruistic behaviours are solely motivated by concern for others whereas other helpful behaviours that one can label as prosocial or even egotistic could still have dual motives. Lemmon and Wayne (2015) build on the distinction between altruistic and egotistic motivation, and categorized OCBs into egotistic and altruistic forms. This categorization reflects the idea that prosocial behaviours, such as “OCB may not always have a large altruistic component” (Van

Emmerik, Jawahar, & Stone, 2005, p.95.), as there are a number of other aspects that can drive these behaviours, such as felt obligation (Lemmon & Wayne, 2015) or impression management (e.g., Bolino, 1999). A number of researchers noted that performing OCBs can be likely impression enhancing (e.g., Fandt & Ferris, 1990; Ferris, Judge, Rowland, & Fitzgibbons, 1994). That is, employees who engage in OCB are likely to be favourably perceived by others at work (Bolino, 1999). Similarly, as noted in section 3.3, PSJC can have dual drivers, and can be motivated by both other-orientation and self-concern. These are independent constructs and individuals may be both self-concerned and other-oriented simultaneously, within a prosocial intent (De Dreu & Nauta, 2009). However, as opposed to some facets of OCBs, PSJC behaviours are unlikely to be driven by egotistical motives. This research posits that although satisfying one's prosocial motivation is in part self-serving as it contributes to a more meaningful work experience and a more positive self-identity, it is still prosocial in nature. Hence, the primary facilitating 'force' is still benefitting others, thus 'egotistic' is not an appropriate term to describe the self-serving aspect of PSJC.

Organ (1988, 1990) defines *peace-making* as actions that help to prevent, resolve or alleviate unconstructive interpersonal conflicts at work, while *cheerleading* reflects the words and gestures of reinforcement and encouragement of colleagues' accomplishments. Peace-making and cheerleading have commonalities with behaviours that are captured by the relational dimension of PSJC, such as offering advice to benefit others, or making an effort to understand the situation of others. Although there are some similarities, considering the definitions, the behaviours captured by the three concepts are still clearly distinct. At last, *interpersonal facilitation* consists of behaviours that are interpersonally oriented, and contribute to the organization's goal accomplishment. Interpersonal facilitation incorporates deliberate acts that aim to improve morale, encourage

cooperation, and remove barriers to performance. In other words, interpersonal facilitation captures behaviours that help to maintain an adequate social context needed to support task performance in an organizational setting (Podsakoff et al., 2000). Similarly to peace-making and cheerleading, interpersonal facilitation might have similarities with RPSJC, as it reflects actions to maintain the social context at work. An example of RPSJC that can overlap with interpersonal facilitation is changing the amount of collaboration with others at work to benefit them. However, interpersonal facilitation aims to maintain or improve morale and cooperation with the goal of supporting task completion, and not for the sake of benefitting others, or establishing meaningful relationships. On the other hand, PSJC is enacted with the intent of both individual need satisfaction, and benefitting beneficiaries.

In terms of the four dimensional (Bolino & Grant, 2016) description of OCB, of its OCBs can be both reactive and proactive (*genesis*). Examples for reactive OCBs are organizational compliance and loyalty, while examples of proactive OCBs are individual initiative or preventing work-related problems (Podsakoff et al., 2000). However, even though these behaviours are undoubtedly proactive in nature, they are different from PSJC. Proactive OCB behaviours are still driven by the intent to do better or do more in order to benefit the organization, and although they are optional in nature similarly to PSJC, it is not specified whether the supervisors are asked for permission to approve these actions. Contrary, PSJC behaviours occur through adapting a bottom-up route, without consulting or involving the supervisors, with the aim of creating an overall more pleasant work experience for the individual, and benefitting others. Similarly to POB (Brief & Motowidlo, 1986), due to the variety of these behaviours, the *target* of OCBs can range from individuals, groups, or the whole organization, depending on the specific behaviour. However, the overall target beneficiary of OCBs is always the organization, since the

overall aim is to promote or maintain the organization's optimal functioning. Again, similarly to POBs, the *goal* of OCBs can be either affiliative (e.g., organizational compliance), or challenging (e.g., individual initiative). At last, OCBs can utilize a range of *resources* such as informational (e.g., self-development), social (e.g., helping behaviour), or personal (e.g., compliance, loyalty). Along these dimensions, the main differences between OCBs and PSJC can be established on the dimensions of genesis and target. Being a subset of job crafting, PSJC is primarily proactive in nature. Regarding the target of PSJC, it is more inclusive than OCBs as it can be directed to any individual one can interact with at the workplace in addition to co-workers (e.g., customers, clients, students, patients etc.), and not only/primarily towards members of the organization as OCB.

3.4.3. Knowledge sharing and PSJC

Knowledge sharing reflects behaviours through which individuals provide information to facilitate problem-solving, innovation, change, or creativity (Argote, McEvily, & Reagans, 2003; Wang & Noe, 2010). Organizations can differ in terms of whether knowledge sharing is considered as an in-role or as an extra-role behaviour. As POBs are considered discretionary, only knowledge sharing that is extra-role can be considered as prosocial. There are several benefits of extra-role knowledge sharing, such as increased internal satisfaction, enhanced professional reputation, and helping to advance the organization (e.g., Hew & Hara, 2007; Wasko & Faraj, 2005). If we consider the benefits from a learning perspective, employees can enhance their own problem-solving abilities through spending time on helping others to solve problems. The traditional assumptions apprehended that knowledge sharing enables only the recipient to learn, more recent research proposes that it can help the provider too (Shah, Cross, & Levin, 2018). Through

helping others solve problems related to job tasks, employees can acquire new skills and insights. Moreover, through knowledge sharing employees can take others' perspectives, which can generate innovative ideas (e.g. McGrath, Vance, & Gray, 2003). In the volunteering literature similar ideas and findings emerged. Scholars have found that skill development to be one of the most evident benefits of devoting time to assist others (Booth, Park, & Glomb, 2009).

Individuals can decide to engage in extra-role knowledge sharing for a variety of reasons (Argote, McEvily, & Reagans, 2003). As an example, extra-role knowledge sharing can be driven by prosocial motivation, and the enjoyment of helping others. But individuals may also be driven by reciprocation (Kankanhalli, Tan, & Wei, 2006) on its own, or simultaneously with helping intentions. However, as Wang and Noe (2010) noted, the antecedents behind knowledge sharing require further research and understanding.

When comparing knowledge-sharing and PSJC, the first key distinction between the two concepts lies in the in or extra-role nature of these behaviours. As previously mentioned, not all knowledge sharing is voluntary, as some are part of the job description, or explicitly instructed by others such as supervisors. On the other hand, PSJC involves 'bottom-up', proactive, and prosocial behaviours which are entirely discretionary, and not part of the formal job description. Knowledge sharing is also a much narrower concept compared to PSJC, only incorporating specific behaviours through which informational resources, skills, and insights are shared. Considering only the extra-role subset of knowledge sharing behaviours, most commonalities can be observed with TPSJC. Some behaviours captured by TPSJC such as choosing to learn new things to benefit others, or managing one's work to create opportunities to help others could have an element of knowledge sharing. However, it is not the primary focus and aim of TPSJC behaviours.

In terms of its *genesis*, extra-role knowledge sharing can be both proactive and reactive. One can proactively offer to share information, while in other cases the knowledge sharing can occur after being asked by others. The *target* of knowledge sharing are mostly individuals (e.g., newcomers), but knowledge sharing can also occur between individuals and the organization (e.g., individual returning from a conference/training shares best practice learnt with supervisors). Due to its prosocial nature, the *goal* of extra-role knowledge sharing is primarily affiliative, as the aim of these behaviours is to maintain or improve the best optimal functioning of the organization. Finally, knowledge sharing utilizes primarily informational *resources* (Bolino & Grant, 2016).

3.4.4. Mentoring and PSJC

Another relevant POB construct is *mentoring*. Mentoring is a dyadic relationship in which the mentor advances the professional and personal development of the protégé through providing assistance, information, support, and guidance (Torres-Guzman & Goodwin, 1995). According to Allen (2003), mentors play a vital role in organizations. Typically, mentors are individuals who have advanced knowledge and experience, and who are committed to provide support to more junior organizational members (protégés or mentees). There is an overlap between mentoring and knowledge sharing, as “mentors serve as a key source for ensuring the continuation of knowledge within organizations” (Allen, 2003, p. 134), but mentoring is a continuous process, while there are no such time commitment requirements for knowledge sharing.

Mentoring can differ in terms of whether it is in-role or extra-role mentoring/formal or informal, and depending on the nature of the mentoring relationship, it can use both informational and personal resources (Allen, 2003). Scholars from the

field of career development have proposed that mentoring has an immense potential to enhance development and progression, especially for individuals in early and middle career stages (Noe, Greenberger, & Wang, 2002). Mentoring is usually organized, and the supporting activities involved can be joint preparation, demonstration or coaching, observation, and providing feedback or advice (Bolino & Grant, 2016). Mentoring can also be categorized as career mentoring (coaching, task-relevant advice, sponsorship) and psychological mentoring. Psychological mentoring can include activities such as building friendship with the mentee, providing emotional support, and encouragement. The extent to a mentor provides these functions can vary considerably (Ragins & Cotton, 1999). In regard to the mentoring activities' contribution to the objective versus subjective success of others, the literature implies trade-offs. Allen, Eby, Poteet, Lentz, and Lima (2004) found that mentees are more satisfied when they receive psychological mentoring, but more successful when they get career mentoring. Mentoring entails a considerable amount commitment and time from the mentors, thus not all individuals are inclined to take this role. Research also shows that individuals who mentor others may have different motives underlying their willingness to engage in this activity, some more self-serving than others (Allen, Poteet, & Burroughs, 1997).

Although it is more difficult for organizations and managers to track informal mentoring, the available evidence shows that informal mentoring can provide greater benefits to mentees than formal mentoring programmes (Chao, Walz, & Gardner, 1992; Ragins & Cotton, 1999). Informal mentoring is not typically mandated within organizations, thus serving as a mentor is a voluntary activity that goes above and beyond the formal job requirements of the mentor. Scandura and Schriesheim (1994) describe mentoring as “a personal, extra-organizational investment in the protégé by the mentor” (p. 1589). Similarly, Mullen (1994) proposed that “by acting as a mentor, one is

performing prosocial behaviors” (p. 276). Consequently, mentoring can be categorized as a form of POB because it contributes to the protégé’s development (Bear & Hwang, 2015).

When comparing with PSJC, one of the key difference is that mentoring can be both informal and formal, and not necessarily discretionary in nature as opposed to PSJC. The most obvious overlap can be observed with RPSJC. In fact, one of the items of the measure of PSJC developed as part of my PhD research (outlined in Chapter 4) is “Chosen to mentor a newcomer”. Thus, there is an overlap between RPSJC and mentoring. But similarly to knowledge sharing, mentoring only encapsulates a narrow area of POBs, and more specifically, only one aspect of RPSJC. However, mentoring could also relate to CPSJC. CPSJC captures cognitive actions such as ‘reminded yourself about the positive short/long term differences your job can make to/for others at work’, or ‘reframed your job to see it as an opportunity to have a positive impact on others at work’. Hence, CPSJC could be an antecedent or outcome of informal mentoring. Due to the efforts that mentoring requires from the mentor, cognitive actions such as thinking about the ‘bigger picture’ and looking at the mentoring relationship as a way to positively impact the protégé are likely to occur.

Similarly to extra-role knowledge sharing, informal mentoring can be both proactive and reactive in terms of its *genesis*. One can proactively offer to mentor a newcomer, or be asked by others to act as a mentor to them. The *target* of informal mentoring are individuals (e.g., newcomers), as mentoring in most cases is a form or relationship between two individuals, the mentor and the protégé (Mullen, 1994). Being a form of POB and given the time and commitment it entails, the *goal* of mentoring is affiliative, through supporting the career development and psychologically well-being of the protégé (Allen, 2003). At last, mentoring can utilize both informational and social

resources, depending on the ratio of developmental vs. psychological mentoring in the particular mentor-protégé relationship (Bolino & Grant, 2016).

3.4.5. Compassion organizing and PSJC

The last POB construct discussed within section 3.4 is *compassion organizing*. Compassion is a fundamentally ‘reactive’ notion that can be defined as supporting those who are suffering with an effort to ease their discomfort. Compassion can be categorized as prosocial, because it involves not only sympathy and empathizing with others who suffer, but taking action and providing emotional support to others in order to ease their pain (Kahn, 1993). According to Dutton, Worline, Frost, and Lilius (2006), the importance of compassion in organizations has been realized only recently, and not assumed in all workplaces. Dutton et al. (2006) propose three assumptions around which the definition and operationalization of compassion can be built. First, Dutton et al. (2006) assumes that “compassion is an expression of an innate human instinct to respond to the suffering of others” (Dutton et al., 2006, p. 60).

The second assumption is that the compassion can best be described as a three-step process (Clark, 1997). The steps are: (1) noticing to the discomfort of another; (2) that results in feelings that are fundamentally other-focussed and resemble empathy (Batson & Shaw, 1991). Finally (3) the individual responds in a way that aims to reduce the suffering (Frost, Dutton, Maitlis, Lilius, Kanov, & Worline, 2000). As Clark (1997) posits, the significance of this vital human experience lies in the combined occurrence of attention, feeling, and action. Dutton et al. (2006) brought relevance to compassion within an organizational context through developing a theory in order to explain how individual’s compassion towards others could become socially coordinated in organizations through the process of ‘compassion organizing’.

Dutton and colleagues (2006) define compassion organizing “as a collective response to a particular incident of human suffering that entails the coordination of individual compassion in a particular organizational context” (p. 4.), and assume that “compassion organizing creates a pattern of collective action that represents a distinct form of organizational capability that alleviates pain by extracting, generating, coordinating, and calibrating resources to direct toward those who are suffering” (p.4.). To sum up, the researchers suggest that the same structures that are designed for the everyday work of organizations could be redirected to a new purpose to respond to members’ pain and suffering.

In terms of the concept’s similarity to PSJC, similarly to mentoring, there can be some overlaps observed with RPSJC and CPSJC, as compassion organizing focuses on actions at the relational level, and on emotions at the cognitive level. However, compassion organizing reflects a collective effort as opposed to individual level, and regarding its *genesis*, it is primarily reactive due to the nature of the concept. The *target* of compassion organizing depends on the specific event or occasion that results in a specific individual or individuals needing support. The *goal* of compassion organizing is always affiliative as the behaviour is driven by empathy and concern, and aims to improve the emotional and psychological well-being of others (Kanov, Maitlis, Worline, Dutton, Frost, & Lilius, 2004). In regard to *resources*, compassion organizing mainly taps into social and personal resources.

3.4.6. Overview

To summarize the above overview of PSJC and related prosocial concepts, it is clear that there are some inevitable similarities given that all concepts are forms of POB. However, I also pointed out key distinctions between PSJC and all of the related concepts discussed, and this summary is presented in *Table 3*.

POBs such as knowledge sharing (e.g., Wang & Noe, 2010), mentoring (e.g., Allen, 2003), and compassion-organizing (e.g., Dutton et al., 2006) reflect specific and clearly defined actions. Although there can be overlaps observed between all three of these concepts and PSJC, PSJC encapsulates a range of behaviours that are not captured by the definition of the three, more narrow constructs. It is evident from the definition of OCB (e.g., Organ, 1988; Podsakoff et al., 2000) that the concept primarily aims to benefit the organization. One of the key distinctions between OCB and PSJC is that PSJC aims to benefit the individual engaged in PSJC, and the beneficiaries of these behaviours. Moreover, OCB refers to a much wider variety of workplace behaviours compared to PSJC, and does not capture the proactive, ‘bottom-up’ nature of PSJC behaviours. Moreover, none of the related POB concepts capture prosocial behaviours on a cognitive level. On the contrary, CPSJC involves behaviours such as thinking about, and reminding oneself of the prosocial nature of one’s job, and it is an important aspect of PSJC. Hence, investigating this yet unexplored level of prosocial behaviours can add to our understanding regarding the complex nature of POBs.

Table 3: Comparison between PSJC and POB concepts

Concept	Definition	Distinction from PSJC
POB	“Behaviour that is (a) performed by a member of an organization, (b) directed toward an individual, group, or organization with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed (Brief & Motowidlo, 1986, p. 711.)”	POB has a much broader definition that incorporates a range of behaviours out of scope for PSJC. POB includes both affiliate and challenging behaviours, as opposed to PSJC which incorporates mainly affiliative behaviours. The target of POB is primarily pro-organizational, as opposed to PSJC, which has a primarily pro-self and prosocial target.
OCB	“An individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ, 1988, p. 4)	Similarly to POB, OCB incorporates a range of behaviours that are unrelated to PSJC. Out of the seven categories of OCB (Podsakoff et al. 2000), ‘helping behaviour’ has the most similarities with PSJC. However, after investigating the behavioural dimensions included within this category, clear distinctions can be observed between OCB helping and PSJS. OCB helping behaviours focus on helping with issues that are work-related, while PSJC is not restricted to work-related matters. OCB lacks the elements of proactivity, and a pro-self-focus. Similarly to POB, the primary target for OCB is the organization.
Knowledge sharing	Providing information to facilitate problem-solving, change, innovation, or creativity (e.g., Wang& Noe, 2010)	Knowledge sharing is a much narrower concept compared to PSJC. It has some overlapping behaviours with the task dimension of PSJC. However, knowledge sharing is not necessarily voluntary in nature, and not specified as a proactive construct. Moreover, the target of knowledge sharing is prosocial and pro-

		organizational, and does not incorporate a pro-self-focus.
<i>Mentoring</i>	Creating a positive relationships with the aim of providing career support/advice and/or emotional support to beneficiaries in an organizational context (e.g., Allen, 2003).	Mentoring reflects specific behaviours that occur in the frame of a formal or informal relationships between the mentor and protégé, and it is a much narrower concept compared to PSJC. Mentoring is not necessarily proactive and informal in nature as opposed to PSJC. Moreover, mentoring has a pro-organizational and prosocial focus, and does not reflect pro-self as target. It somewhat taps into the relational dimension of PSJC, as relational PSJC includes a behaviour of proactively choosing to informally mentor a beneficiary at work.
<i>Compassion organizing</i>	Providing emotional and psychological support in an organized way to others who are suffering in an effort to alleviate their pain (e.g., Dutton et al., 2006)	Compassion organizing reflects a specific behaviour that is collective in nature, as opposed to PSJC which occurs on the individual level. Moreover, compassion organizing is primarily reactive in nature, with a solely prosocial focus, as opposed to PSJC which is proactive in nature and has an important element of self-focus.

3.5. Measuring PSJC

As outlined in section 3.3, there are no existing studies on job crafting that investigate specific job crafting behaviours from a prosocial perspective. Therefore, there is no existing scale for the measurement of PSJC. Most job crafting studies using the conceptualization of Wrzesniewski and Dutton (2001) are qualitative in nature with small sample sizes from specific organizational contexts (e.g., Caza, 2007; Grant et al., 2007; Grant, Berg, & Johnson, 2010; Ko, 2012). Moreover, the majority of the quantitative studies on job crafting are adapting the JD-R model (e.g., Tims et al., 2012, 2013; Bakker

et al., 2012), discussed in Chapter 2. Hence, the measures developed, validated, and used in these studies are also based on the JD-R conceptualization (Tims, Bakker, & Derks, 2012; Nielsen & Abildgaard, 2012; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012), and consequently do not capture the behaviours included in the concept of PSJC.

Only a handful of quantitative studies (Ghilescu, 2006; Laurence, 2010; Slemp & Vella-Brodrick, 2014; Shusha, 2014; Niessen et al., 2016; Bindl et al., 2018) were conducted on job crafting that build on the framework of Wrzesniewski and Dutton (2001). These studies use quantitative job crafting measures to capture general task, relational, and cognitive job crafting, or enhancing and limiting forms of the three crafting dimensions. An overview of existing measures is presented in *Table 4*. Although these measures built on the theoretical foundation of Wrzesniewski and Dutton (2001), I was not able to use them for the purposes of my research, as these measures do not tap into the specific prosocial nature of the job crafting behaviours at the centre of my thesis. Thus, instead of trying to ‘force’ an existing measure to fit the specific needs of my research, I decided to develop a new measure to allow and maximise the accurate measurement of PSJC. Throughout the rigorous scale development process outlined in Chapter 4, I follow good practice with the aim to include all recommended analytical steps (DeVellis, 2016). Part of this tried and tested approach to scale development is to compare the newly developed scale with existing measures. Thus, within the development and validation process I compare the measure of PSJC with the most established existing measures of job crafting and OCB in order to empirically demonstrate the level of similarity to, or distinction from these existing measures and constructs. Next, I will briefly discuss the existing measures of job crafting, and highlight the reasons why they were out of scope for my research.

In the first empirical study on job crafting, Ghitulescu (2006) developed six subscales capturing the three dimensions of job crafting based on Wrzesniewski and Dutton (2001) with occupation specific items (e.g., math teachers). Causing a slight confusion in the reader, Ghitulescu (2006) used different items and scale anchors in the two empirical studies within the unpublished doctoral dissertation to measure job crafting behaviours. In the first study, task crafting was measured by supervisor ratings of task initiative, using anchors from Poor (1) to Outstanding (5). Relational crafting was measured with 4 items, with an anchor from Never (1) to Multiple times per day (7), and cognitive crafting was measured with 3 items adapted from Hackman and Oldham (1975) with scale anchors Not at all significant (1) to Highly significant (7). One could question if supervisor ratings are a suitable form to measure a different individual's task crafting activities, as task crafting is proactive in nature and occurs without asking for permission or approval from supervisors. In addition, task initiative is a different concept from task crafting, and does not capture the proactive tailoring, modifying and constructing on one's job boundaries. In the second study, task crafting was measured with 17 self-report items, with an anchor from Never (1) to For all math sessions (5). Relational crafting was measured with 5 items, 2 items for crafting towards peers, and 3 items for crafting towards administrators, indicating the average number of monthly communication with individuals in specific job roles regarding math instructions. Cognitive crafting was measured with 3 items adapted from Hackman and Oldham (1975), adapting scale anchors from Strongly disagree (1) to Strongly agree (7). Example items for the scale are presented in *Table 4*. I was not able to use the subscales developed by Ghitulescu (2006), due to the slight inconsistencies with some of the subscales (e.g., using task initiative for task crafting) and the highly 'occupational specific' nature of most items. But most importantly, none of the items captured a prosocial layer of job crafting.

Based on interviews, focus groups and previous work by Wrzesniewski (2003), Leana and colleagues (2009) developed a 6-item scale for the measure the job crafting behaviours of childcare workers. The researchers assessed both individual and collaborative crafting with the same items, but instructing participants to answer collaborative crafting questions considering the behaviours in collaboration with co-workers in their classrooms. Participants were asked to respond and indicate the frequency of the six job crafting behaviours on their own and collaboratively on a scale from Never (1) to Every day (6). Similarly to the measures of Ghitulescu (2006), all individual level job crafting items were highly occupation specific, and none of them captured behaviours that are prosocial in nature. Moreover, Leana and colleagues (2009) focused on the task dimension of crafting, and relational and cognitive crafting were not captured sufficiently with the 6-item measure.

Laurence (2010) developed a scale by modifying items from the job characteristics scales developed by Hackman and Oldham (1974) and Sims, Szilagyi, and Keller (1976) representing the dimensions adapted from Wrzesniewski and Dutton (2001), measuring physical, and relational/cognitive crafting. Laurence (2010) differentiated these crafting behaviours based on their expansion and contraction orientation, as outlined in section 2.6.5. The 11-item expansion oriented physical crafting subscale and the 5-item contraction oriented physical crafting subscale 7-item expansion oriented relational/cognitive subscales are measured on a 10-point Likert type scale from Not at all (1) to Very much so (10). Although conceptualizing job crafting behaviours along the orientations of expansion and contraction is an important and novel addition to the job crafting literature, there are some shortcomings of this measure. Laurence (2010) slightly reframed task crafting which weakened the theoretical contribution, as task crafting had not been paid sufficient research attention prior. Moreover, Laurence (2010)

combined relational and cognitive crafting as one dimension, hence lost some of the subtleties of job crafting, regardless of the additional dimensions that the extraction/contraction oriented approach added. In addition, some of the items of both the physical and relational/cognitive dimensions are double loaded and slightly long. Moreover, none of the items captured similar behaviours to PSJC. Although at first glance one could think that the expansion oriented dimensions of the measure could tap into crafting behaviours with a helping aspect, the items simply reflected increasing the amount of the physical, relational/cognitive actions.

Out of the measures discussed in this section, the measure of Slep and Vella-Brodrick (2013) comes closest to meeting the requirements of my empirical studies, but not suitable due to the lack of prosocial focus. However, the 15-item job crafting measure developed by Slep and Vella-Brodrick (2013) namely the Job Crafting Questionnaire (JCQ) was used as a key source of inspiration in developing my own items. JCQ measures each of the three dimensions with 5 items, capturing the dimensions described by Wrzesniewski and Dutton (2001), using a rating scale from Hardly ever (1) to Very often (6).

Bindl and colleagues (2018) developed a 27-item scale, measuring promotion oriented (16 items) and prevention oriented (12 items) forms of relationship, skill, task, and cognitive crafting. Respondents are asked to what extent they had engaged in the different strategies of job crafting, over the past week, ranging from Not at all (1) to A great deal (5). Adding an additional dimension, namely skill crafting, to the three forms of job crafting proposed by Wrzesniewski and Dutton (2001) is a valuable contribution, as it opened up an avenue to consider additional layers or subsets of job crafting behaviours. There can be similarities observed with the expansion/contraction dimensions of Lawrence (2010), as the researchers proposed promotion and prevention oriented

forms of job crafting. The prevention and promotion orientations reflect more than just decreasing and increasing the amount of behaviours. Prevention captures simplifying, while promotion orientation adds complexity to the task, relational, cognitive and skill dimensions of one's work. However, regardless of the 'richness' of this scale, prosociality is not captured with any of the items.

At last, Niessen, Weseler, & Kostova (2016) developed a 9-item measuring, with 3 items representing each of the three job crafting dimensions based on the framework of Wrzesniewski and Dutton (2001). The respondents were asked to indicate their responses on a five-point Likert scale from Not at all (1) to Absolutely (5). There are a lot of similarities with the measure of Slemp and Vela-Brodrick (2013), hence the novelty of the scale is questionable. It is not entirely evident that the development of the current scale was necessary, as it might have 'muddied the water' in the area of job crafting measures. Moreover, although Niessen, et al. (2016) developed and used this measure in their study, the scale has not gone through a rigorous validation process, as opposed to the JCQ.

To sum up, there are a number of validated measures of job crafting. PSJC is not an entirely new form of job crafting, but a subset of general job crafting behaviours. However, I argue that none of the existing job crafting measures reflect the theoretical foundations of PSJC, and capture the behaviours precisely. Therefore, developing a new measure for PSJC was necessary.

In addition to the lack of theoretical suitability, there are also some methodological issues with some of the above discussed scales. First, some of these measurements (Ghitulescu, 2006; Niessen et al., 2016) have not gone through a rigorous validation process. Moreover, majority of these scale development studies were cross-sectional (e.g., Laurence, 2010; Weseler and Niessen, 2016) or entirely self-report in

nature (e.g., Slemp and Vella-Brodrick, 2014). Solely cross-sectional and self-report data limits the implications one can make regarding cause and affect relationships, and it is subject to a number of biases such as self-report and common method bias (Podsakoff et al., 2003). At the stage of the scale development process where the measure's predictive validity is tested, cross-sectional and solely self-report data can have negative implications. Measuring the antecedent and outcome variables are at the same time and from the same source can limit the conclusions one can make regarding the predictive power of their measure, as a true causal relationship between variables cannot be observed with cross-sectional and self-report data (Podsakoff et al., 2000). Thus, my research will utilize both cross-sectional and time-lagged designs, using data collected from a variety of job sectors, from both self-report and objective sources with the aim to improve the validity and generalizability of the findings.

Table 4: Overview of the existing job crafting scales

Authors/year	Job crafting dimensions	Example items
<i>Scales that build on the theoretical conceptualization of Wrzesniewski and Dutton (2001)</i>		
Ghitulescu (2006)	Task, Relational, Cognitive job crafting	<p><i>Task</i>: “How often do you use each of the following in your math class? e.g., Teach concepts in small steps that are more manageable for some students”.</p> <p><i>Relational</i>: “How often did you have substantive work-related interactions in the past month with? e.g., Material handling employees”</p> <p><i>Cognitive</i>: “My job is very significant and important – the results of my work are likely to significantly affect the lives or well-being of other people”</p>

Leana et al. (2009)	Individual and Collaborative crafting	<p><i>Individual crafting</i> ($\alpha = .79$): “Introduce new approaches on your own to improve your work in the class”</p> <p><i>Collaborative crafting</i> ($\alpha = .89$): “Work together with your co-workers to introduce new approaches to improve your work in the classroom”</p>
Laurence (2010)	Expansion and Contraction oriented physical and relational/cognitive job crafting	<p><i>Expansion oriented physical crafting</i> ($\alpha = .92$): “I have taken steps to change the way I go about doing my work and to expand the scope of my work goals”</p> <p><i>Contraction oriented physical crafting</i> ($\alpha = .91$): “I have taken steps to change the way I go about doing my work and to limit the scope of my work goals (for example, so that I can spend more time and energy on friends, family, hobbies, etc.)”</p> <p><i>Expansion oriented relational-cognitive crafting</i> ($\alpha = .90$): “I have taken steps to increase the extent to which I deal with other people on my job.”</p> <p><i>Contraction oriented relational/cognitive crafting</i> ($\alpha = .90$): “I have taken steps to limit the scope of my job responsibilities at (org) (for example, so that I can spend more time and energy on friends, family, hobbies, etc.)”</p>
Slemp and Vella-Brodrick (2013)	Task, Relational, Cognitive job crafting	<p><i>Task crafting</i>: “Change the scope or types of tasks that you complete at work” ($\alpha = .87$)</p> <p><i>Relational crafting</i>: “Make an effort to get to know people well at work” ($\alpha = .83$)</p> <p><i>Cognitive crafting</i>: “Think about how your job gives your life purpose” ($\alpha = .89$)</p>

Bindl et al. (2018)	<p>Promotion oriented task, relational, cognitive, skill crafting</p> <p>Prevention oriented task, relational, cognitive, skill crafting</p>	<p><i>Relationship crafting – promotion oriented</i> ($\alpha=.92$): “I tried to spend more time with a wide variety of people at work,”</p> <p><i>Relationship crafting – prevention oriented</i> ($\alpha=.75$): “I minimized my interactions with people at work that I did not get along with”</p> <p><i>Skill crafting – promotion oriented</i> ($\alpha=.93$): “I actively tried to develop wider capabilities in my job”</p> <p><i>Skill crafting – prevention oriented</i> ($\alpha=.87$): “I channeled my efforts at work towards maintaining a specific area of expertise”</p> <p><i>Task crafting – promotion oriented</i> ($\alpha=.90$): “I added complexity to my tasks by changing their structure or sequence”</p> <p><i>Task crafting – prevention oriented</i> ($\alpha=.82$): “I tried to simplify some of the tasks that I worked on”</p> <p><i>Cognitive crafting – promotion oriented</i> ($\alpha=.82$): “I thought about new ways of viewing my overall job”</p> <p><i>Cognitive crafting – prevention oriented</i> ($\alpha=.70$): “I assessed the different elements of my job to determine which parts were most meaningful.”</p>
Niessen, Weseler, & Kostova (2016)	Task, Relational, Cognitive job crafting	<p><i>Task crafting</i> ($\alpha=.79$): “I undertake or seek for additional tasks”</p> <p><i>Relational crafting</i> ($\alpha=.75$): “I look for opportunities to work together</p>

		<p>with people whom I get along well with at work.”</p> <p><i>Cognitive crafting</i> ($\alpha=.81$): “I view my tasks and responsibilities as being more than just part of my job.”</p>
<i>Scales that build on the JD-R framework</i>		
Tims et al. (2012)	<p>Increasing structural job resources, Increasing social job resources, Increasing challenging job demands, Decreasing hindrance job demands</p>	<p><i>Increasing structural job resources</i> ($\alpha=.82$): “I try to develop my capabilities”</p> <p><i>Increasing social job resources</i> ($\alpha=.77$): “I ask whether my supervisor is satisfied with my work”</p> <p><i>Increasing challenging job demands</i> ($\alpha=.75$): “When an interesting project comes along, I offer myself proactively as project co-worker”</p> <p><i>Decreasing hindrance job demands</i> ($\alpha=.79$): “I make sure that my work is mentally less intense”</p>
Nielsen and Abildgaard (2012)	<p>Increasing challenging demands, Decreasing social job demands, Increasing social job resources, Increasing quantitative demands, Decreasing hindrance job demands</p>	<p><i>Increasing challenging demands</i> ($\alpha=.85$): “When there is an opportunity to get involved I seize it”</p> <p><i>Decreasing social job demands</i> ($\alpha=.76$): “I try to avoid emotionally challenging situations with my customers”</p> <p><i>Increasing social job resources</i> ($\alpha=.75$): “I ask my supervisor whether s/he is satisfied with the work I do”</p> <p><i>Increasing quantitative demands</i> ($\alpha=.74$): “I ask colleagues for their advice”</p>

		<i>Decreasing hindrance job demands (inter-item correlation=.51): “I ensure that my work is the least burdening/straining”</i>
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As noted above, the scale development is discussed in detail in Chapter 4. The aim of the scale development process was to develop a measure of PSJC, capturing the three dimensions of the concept, namely: task prosocial job crafting (TPSJC), relational prosocial job crafting (RPSJC), and cognitive prosocial job crafting (CPSJC). Therefore, the first key objective of the scale development and validation process is:

Objective 1: The prosocial job crafting measure will return a three-factor structure reflecting the three dimensions of prosocial job crafting (TPSJC, RPSJC, CPSJC)

Moreover, through the scale validation process the newly developed measure of prosocial job crafting is checked for construct validity to confirm or challenge the theorized similarity and yet difference between PSJC and related proactive and prosocial concepts. Construct validity reflects the extent to which a questionnaire scale measures the presence of the construct we intend to measure (Saunders, Lewis, & Thornhill, 2016). By demonstrating construct validity, it can be established whether PSJC is an identifiable and distinct construct. The second key objective of the process is:

Objective 2: TPSJC, RPSJC, CPSJC will show evidence of construct validity.

Furthermore, as the final stage of scale validation, the subscales of PSJC will be tested for their predictive validity by examining whether the dimensions of prosocial job crafting can predict a variable that is theoretically an outcome of the constructs. Predictive validity

reflects a measure's ability to make accurate predictions (Saunders, Lewis, & Thornhill, 2016). Work engagement was chosen as an outcome variable for this analysis. Work engagement can be defined as '... a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption' (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). According to Berg, Dutton and Wrzesniewski (2013), job crafting is a valuable way to increase work engagement, especially for individuals who experience dissatisfaction at work. The uncertainty of the current job market and the "employment trends contribute to pressure for employees to stay in less than ideal jobs for longer periods of time, making it more likely that employees will need to re-engineer their jobs from within as a way to find increased meaningfulness or foster engagement." (Berg et al., 2013, p.4). Individuals who make an effort to build positive work relationships through relational crafting and increase meaningfulness and purpose through task and cognitive crafting will be more likely to feel increased levels of engagement (Dutton et al., 2010). And PSJC being a subset of job crafting, it was expected that work engagement would be a likely outcome of PSJC as well. Moreover, research by Hakanen, Schaufeli, and Ahola (2008) found that there is a positive link between personal initiative and work engagement, which implies that engaged employees actively change their work environment if needed instead of being passive actors (Bakker et al., 2012).

Although research on the relationship between job crafting and work engagement showed a positive link between the two, there is limited research on the link between POBs and work engagement. However, research on prosocial impact and engagement yielded promising result. Research by Quinn (2005) found that prosocial impact increased the level of positive emotions and engagement by encouraging employees to reflect positively on work. On days when employees experience high levels of prosocial impact,

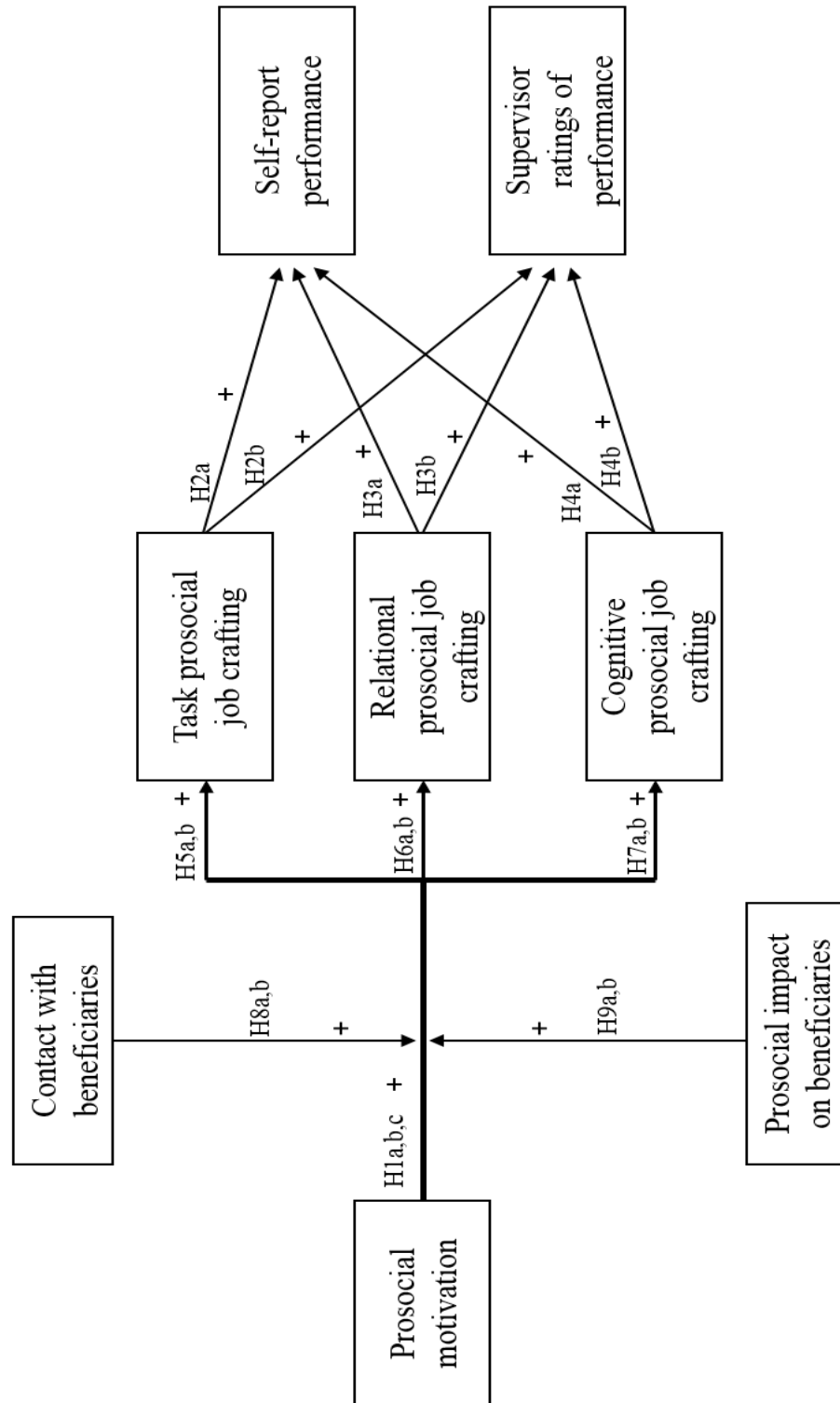
they may experience deeper engagement with tasks and/or relationships. However, Csikszentmihalyi and Csikszentmihalyi (1992) propose that only when the work is over can employees fully experience the emotional power of how much their contributions at work made a difference. Studies investigating the relationship between POBs and work engagement rarely examine POB as an antecedent of work engagement. A study by Babcock-Roberson and Strickland (2010) tested a meditation model in which work engagement was tested as a mediator between leader charisma and a form of POB, more specifically OCB. Although the researchers did not examine whether OCB is an antecedent of work engagement, the study found a positive correlation between work engagement and OCB. Saks (2006) found similar results investigating a mediation model in which job and organizational engagement mediated the relationship between perceived organizational support and OCB. The third key objective of the scale validation process is:

***Objective 3:** TPSJC, RPSJC, and CPSJC will demonstrate predictive validity by significantly predicting work engagement.*

3.6. Theoretical model and development of the Hypotheses

In this section I will introduce and describe the conceptual model of PSJC that is investigated and tested in my PhD thesis. The model is presented in *Figure 3*.

Figure 3: The theoretical model of prosocial job crafting



Research on prosociality in organizations has focused on three main streams, namely prosocial motivation, prosocial behaviours, and prosocial impact. Although prosocial motives, prosocial behaviour, and prosocial impact are related phenomena, the constructs are distinct from one another. Prosocial motives reflect “the desire to benefit others or expend effort out of concern for others”, prosocial behaviours involve “acts that promote/protect the welfare of individuals, groups, or organizations”, and prosocial impact refers to “the experience of making a positive difference in the lives of others through one’s work” (Bolino & Grant, 2016, p. 2.). Prosocial impact is associated with prosocial motivation because employees who are prosocially motivated have a tendency to be more concerned with benefiting others through their work. However, prosocial impact does not refer to the motivation itself “but to the realization or recognition that one’s efforts at work are indeed making a difference to someone. Overall, then, prosocial motivation is the desire and drive to benefit others, prosocial behaviours are the acts that benefit others, and prosocial impact is the awareness that one’s actions have succeeded in benefiting others” (Bolino & Grant, 2016, p. 4.). Although, research interest on prosociality emerged over 30 years ago (Bateman & Organ, 1983; Brief & Motowidlo, 1986), there has been limited effort to systematically integrate the three main streams.

Building on the recommendations of Bolino and Grant (2016), the model in the centre of this thesis systematically incorporates all three connected lines of prosociality in organizations. *Prosocial motivation* is examined as an antecedent, *PJSC* as a form of POB as a mediator, and perceived *prosocial impact on beneficiaries* as a form of prosocial impact as a moderator. Moreover, in order to add an additional layer of understanding to this specific subset of job crafting, the three forms of PSJC, namely TPSJC, RPSJC, and CPSJC are examined as separate variables. This also allowed me to investigate whether these three facets are different in terms of their underlying mechanisms.

3.6.1. The positive relation between prosocial motivation and TPSJC, RPSJC, and CPSJC

As my thesis is exploratory in nature given that PSJC has not yet been investigated before, there is a rationale for including prosocial motivation as the proposed key antecedent of PSJC behaviours. Prosocial motivation is defined as the desire to expend effort to benefit other people (Batson, 1987). As all motivations, prosocial motivation can be described in different ways. Some researchers have conceptualized prosocial motivation as a trait or disposition, while others have conceptualized prosocial motivation as a temporary state, influenced by the context or situation (Bolino & Grant, 2016). In regard to the trait conceptualization, research have examined prosocial motivation by studying prosocial values (Grant, 2008a; Rioux & Penner, 2001), individual differences in other-orientation (Meglino & Korsgaard, 2004), concern for others (McNeely & Meglino, 1994), and prosocial personality (Penner, Fritzsche, Craiger, & Freifeld, 1995). As a temporary psychological state, prosocial motivation drives to promote and protect the welfare of other people, usually prompted by contact with others who need help (Grant, 2007). As an enduring individual difference, prosocial motivation is reflected in prosocial values (De Dreu, 2006), agreeableness (Graziano, Habashi, Sheese, & Tobin, 2007), disposition toward empathy and helpfulness (Penner et al., 1995), and values of concern for others (Meglino & Korsgaard, 2004).

To sum up, prosocial motives may be conceptualized as trait reflected by a stable disposition toward prosocial values, concern for others, or other orientation. Or it may be a temporary state characterized by a desire to benefit particular groups or individuals. Regardless of the recognition that prosocial motivation can be a trait or state, the

overwhelming majority of research on the subject has focused on trait-like other-orientation (Bolino & Grant, 2016).

Scholars interpret the possibility and role of self-interest with prosocial motivation in different ways. As one of the most prevalent examples, Meglino and Korsgaard (2004) theorize that prosocial motivation is the dispositional trait of other-orientation. Meglino and Korsgaard (2004) posit that other-orientation is essentially an altruistic motive that reflects a concern for others even at the expense of concern for oneself. This approach was not without its criticism. As an example, De Dreu (2006) argued that self-concern and other-orientation are independent and distinct constructs. This proposition was supported by a line of research on dual concern (Butler, 1995), compassion and self-image goals (Crocker & Canevello, 2008), prosocial and instrumental motives for citizenship (Grant & Mayer, 2009; Rioux & Penner, 2001), and social value orientations (Van Lange, 1999). De Dreu and Nauta (2009) further investigated the possibility of people being both concerned with self and others. Their study found empirical evidence that people can be either self-concerned, other-oriented, or both at the same time, simultaneously. Thus, providing support for the distinction between altruism and prosocial motivation.

The relationship between self-interest and other orientation has been a key topic of focus in the literature on prosocial organizational behaviours such as OCBs, and researchers have been engaged in a debate on whether self-concern or prosocial motivation is the primary drive of these behaviours. As noted above in section 3.4.2, Bolino (1999) proposed that engaging in OCBs can result from a dual motive of the individual. While employees often engage in OCBs because they are “good soldiers” who genuinely care about their peers and the organization, OCBs can also be motivated by image and impression management (Maneotis, Grandey, & Krauss, 2014). Previous studies also dedicated research attention to the association between prosocial motivation

and prosocial behaviours, but most specifically OCBs. As an example, a study by McNeely & Meglino (1994) found that the concern for others dimension of prosocial motivation was a predictor of certain forms of OCBs, such as helping, but was not an antecedent for OCBs that aimed to primarily benefit the organization.

My thesis aims to add to our understanding of the relationship between prosocial motivation and POBs. Most research in the area have mostly focused on OCB as the primary form of POBs. However, as discussed in section 3.4.2, PSJC and OCB are distinct constructs, and have different mechanisms. Therefore, investigating the relationship between prosocial motivation and PSJC adds to existing knowledge on the relationship between prosocial motivation and POBs.

Building on the Theory of Prosocial Behaviour (Batson, 1990), Grant and Berry (2011, p. 77.), notes that “prosocial motivation can involve, but should not necessarily be equated with altruism; it refers to a concern for others, not a concern for others at the expense of self-interest”. My research is in line with this approach and I theorize that the prosocial motivation driving PSJC behaviours is largely present due to a concern for others. However, this concern for others is not at the expense of self-concern, as individual need satisfaction is a key driver of all job crafting behaviours.

As PSJC is a subset of job crafting behaviours, it is important to clarify the overlaps between the antecedents of general job crafting and the proposed antecedent of PSJC. As outlined in Chapter 2, Wrzesniewski and Dutton (2001) theorized, although did not empirically investigate, three core needs as the antecedents to job crafting. These are the need for control, the need for positive self-image, and the need for human connections. Prosocial motivation has some overlaps with two of the three, namely need for human connection and need for positive self-image, but still a distinct and separate construct. As noted above in section 3.3, the need for connection is a basic human need, and primarily

taps into the concern for one's self. On the other hand, prosocial motivation is a trait, primarily arising from the concern for others. In regard to a positive self-image, POBs such as OCBs can also be motivated by image and impression management (Maneotis, Grandey, & Krauss, 2014). And when it comes to prosocial motivation, the concern for others does not overwrite self-concern, thus impression management could be a less dominant facet of prosocial motivation (Grant & Berry, 2011).

Researchers have also examined the outcomes of prosocial motivation. Studies show that prosocial motivation is an important influence on enhanced performance by driving people to help others (Rioux & Penner, 2001), take initiative (De Dreu & Nauta, 2009), persist in meaningful tasks (Grant et al., 2007), and direct employees toward improved performance and productivity (Grant, 2008a), through enabling dedication to a cause (Thompson & Bunderson, 2003), a commitment to the people who benefit from one's efforts (Grant, 2007), moral principle (Shamir, 1990) and a willingness to accept and utilize negative feedback (Meglino & Korsgaard, 2004). Moreover, a number of studies adapting different conceptualizations and measures of prosocial motivation suggest that prosocial motivation is associated with higher levels various extra-role behaviours (e.g., Bing & Burroughs, 2001; Rioux & Penner, 2001, Ilies, Scott, & Judge, 2006). Building on these findings and the findings on the links between prosocial motives and prosocial behaviour (e.g., McNeely & Meglino, 1994; Bolino, 1999; Bolino & Grant, 2016), I theorize that prosocial motivation is an antecedent of all three dimensions of PSJC. As PSJC is a concept that has not yet been investigated before, there are no previous findings to build on regarding the underlying mechanisms of its three forms. In the seminal paper of Wrzesniewski and Dutton (2001), the researchers propose that the three forms of job crafting have the same antecedents. However, these propositions have not yet been sufficiently tested empirically. Most empirical research focusing on the job

crafting conceptualization of Wrzesniewski and Dutton (2001) focussed on job crafting as an antecedent (e.g., Slemp & Vella-Brodrick, 2013; 2014; Weseler & Niessen, 2016), and not as an outcome or mediator variable. However, looking at the three facets of PSJC through the lens of POBs, all three are considered as a form of this broader behavioural category. Investigating prosocial motivation as an antecedent of all three facets could add to the much needed systematic understanding of the mechanisms between prosocial motivation, POBs, and prosocial impact (Bolino & Grant, 2016).

***Hypothesis 1:** Prosocial motivation positively predicts (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

3.6.2. The positive relation between TPSJC, RPSJC, CPSJC and performance outcomes

As previously discussed in section 2.6.2, research found that job crafting can result in a number of positive outcomes, such as improved performance (Leana et al., 2009; Weseler and Niessen, 2016), increased well-being (Slemp & Vella-Brodrick, 2014) and work engagement (McClelland et al., 2014). Similarly, several empirical studies have demonstrated the beneficial consequences of POBs, such increased job satisfaction and organizational commitment (Ghosh & Reio, 2013), a strengthened sense of meaning and purpose (Grant, 2007), and improved performance (Podsakoff et al., 2009). Although the vast majority of research on POBs have focussed on the positive side, more recently research investigating the negative outcomes of these behaviours have emerged (Bolino, Hsiung, Harvey, & LePine, 2015).

My research is in line with the dominant trend, and I propose that PSJC, being a construct merging POBs and job crafting, results in beneficial consequences for the individual. After careful consideration, I decided that the most relevant and impactful outcome variable for my conceptual framework is *performance*. There are a number of

empirical papers that demonstrated that both job crafting and forms of POBs can result in improved performance for the employees, and I will discuss these findings below. However, in addition to the theoretical justification, performance was also chosen due to its practical relevance. Performance is one of the key (if not the key) outcome variables in organizational studies as all organizations are concerned about the performance of their employees. Due the exploratory nature of my research, the aim was to demonstrate impactful findings with a relevant outcome variable that was also a primary interest of the participating host organizations.

My thesis examines the influence of these behaviours on both self-report, and supervisor ratings of individual performance. The self-report data was collected in a cross-sectional design, and the supervisor ratings of performance was collected 5 weeks after the self-report data, in a time lagged design. The aim of collecting performance evaluations from two different sources is threefold. *First*, collecting data from multiple sources in order to enhance objectivity can reduce the threat of common method or self-report bias (Podsakoff et al., 2000). *Second*, the findings regarding causality are considered more accurate and valid when using non self-report and time-lagged data for the outcome variable (Podsakoff, MacKenzie, & Podsakoff, 2012). *Third*, this study design allows the performance ratings from the two sources to be correlated, and this way the strength of relationship between the two sources can be examined.

3.6.2.1. Research on job crafting and performance

Although in their seminal paper Wrzesniewski and Dutton (2001) did not theorize a direct relationship between job crafting and performance, they proposed that job crafting influences job performance through affecting the meaning of work. As Roberson (1990) noted, work meanings shape work motivation and performance on the job. Though,

Wrzesniewski and Dutton (2001) somewhat overlooked the potential of job crafting to directly influence performance, since 2001 a number of studies examined this link. Job crafting represents proactive modification of the job to improve the fit between the individual's work identity and the meanings that the individual assigns for this identity, and for his or her job (Wrzesniewski & Dutton, 2001; Stets & Burke, 2005; Laurence, 2010). Taking proactive steps to alter and construct one's tasks or relationships at work, and cognitively reframing one's job is likely to improve the performance one gives (Leana et al, 2009; Laurence, 2010; Weseler & Niesen, 2016).

After conducting an extensive literature I identified several studies that found a positive relationship between job crafting and both individual (e.g., Laurence, 2010; Bakker, Tims, & Derks, 2012; Tims, Bakker, Derks, & van Rhenen, 2013) and group/organizational level performance (e.g., Leana et al., 2009; McClelland et al., 2014). However, only four of these studies utilized the job crafting conceptualization of Wrzesniewski and Dutton (2001), and the majority of the papers build on the JD-R conceptualization of crafting (Tims & Bakker, 2010). As my research builds on the job crafting theory of Wrzesniewski and Dutton (2001), the implications of studies adapting the JD-R conceptualization are slightly out of scope.

In studies on job crafting with performance as an outcome variable, performance was measured with a variety of methods such as independent observes, supervisor ratings, and self-report on the individual and team level. Leana and colleagues (2009) investigated the link between individual/collaborative task crafting of childcare workers and their performance. Performance was assessed by independent observers who rated the quality of care provided by the participants. The researchers found that collaborative crafting activities significantly and positively predicted the performance of the participants. They explained this link with the “enhanced information sharing and learning that take place

when teachers and aides work together” (Leana et al., 2009, p. 1186). Similarly to Leana et al. (2009), McClelland and colleagues (2014) also focused on collaborative crafting and its influence on performance. Team performance was measured through instructing the supervisors to rate their teams on four performance criteria (Ancona & Caldwell, 1992; Van Der Vegt & Bunderson, 2005): efficiency, work quality, team achievements, and mission fulfilment. The researchers found that collaborative crafting was positively related to team efficacy, team control, and team interdependence, which in turn were found to positively influence work engagement and team performance. Both the studies of Leana et al. (2009) and McClelland and colleagues (2014) used non self-report measures for performance, hence reducing the risk of CMB. Also, as noted above, using non self-report measures, especially in a cross-sectional design, can improve the chance that the implication of causality are valid (Podsakoff et al., 2012). Hence, the results of the study by Laurence (2010) have some limitations as performance was measured with self-report data, in a cross-sectional study design. However, Laurence (2010) presented valuable findings that contributed to existing understanding of the relationship between individual level crafting and performance. Laurence (2010) hypothesized that expansion and contraction oriented job crafting partially mediates the relationship between workaholic tendencies/work enjoyment and job performance. The results indicated that job crafting was shown to be a significant mediator of the relationship between enjoyment of work and job performance. This mediation was the strongest when expansion oriented job crafting mediated the relationship between work enjoyment and job performance.

Similarly to Laurence (2010), Weseler and Niessen (2016) investigated the relationship between extension and reduction oriented job crafting, and performance (both self-report and supervisor ratings) with a hierarchical regression analysis. The researchers found support for their hypotheses theorizing that extension oriented crafting

behaviours lead to better performance. The study results indicated that extension oriented task, and relational crafting led to increased productivity in terms of task performance (self-report), and extension oriented task crafting resulted in higher supervisor ratings of performance. Although these findings are promising, the study has some notable limitations due to its cross-sectional design and fairly simplistic analyses.

Job crafting's influence on performance was also highlighted by the paper of Clegg and Spencer's (2007), presenting their influential circular dynamic model of job design. The researchers suggested that role adjustment (such as job crafting) can lead to improved performance through higher self-efficacy, higher motivation, and changes in job content. Clegg and Spencer (2007) argued that job content adjustments and increased efficacy improve work motivation, which can positively influence performance. This argument is grounded in an extensive body of work that has developed an in-depth understanding of how job content and efficacy can affect work outcomes (e.g., Fried & Ferris, 1987; Hackman & Oldham, 1976; Parker & Turner, 2002).

Although studies on job crafting and performance such as Bakker, Tims, and Derks (2012), Tims, Bakker, Derks, and van Rhenen (2013), and Tims, Bakker, and Derks (2015) utilized the 'rival' theoretical conceptualization of job crafting, namely the JD-R approach, the findings of these studies may still be relevant for my research. There are some overlaps between the job crafting behaviours captured by the conceptualization of Wrzesniewski and Dutton (2001) and the conceptualization of Tims and Bakker (2010), and both job crafting constructs capture behaviours that are proactive in nature, with the aim of improving the work experience of the actor. In a 2012 paper, Bakker, Tims, and Derks theorized that individual level job crafting influences performance, and this relationship is mediated by work engagement. The researchers assessed in-role performance using peer ratings, and found support for their hypothesized relationship

regarding the mediating power of work engagement between job crafting and performance. Moreover, they found that the ‘increasing job resources’ and ‘increasing job demands’ dimensions of job crafting were positively and significantly related to in-role performance. Tims, Bakker, Derks, and van Rhenen (2013) built on the findings of Bakker, Tims, and Derks (2012) suggesting that employee job crafting being positively related to job performance through employee work engagement. Similarly to Leana et al. (2009) and McClelland et al. (2014), the researchers expanded the individual-level perspective to the team level and hypothesized that team job crafting relates positively to team performance through team work engagement. The authors also theorized that “team job crafting relates to individual performance through (a) individual job crafting and individual work engagement; and (b) team work engagement and individual work engagement (Tims, Bakker, Derks, & van Rhenen, 2013, p. 427)”. Both individual and team level performance was measure through self-report, using the same individual performance scale developed by Williams and Anderson (1991), changing the items according for team level performance. As an example, the item “I adequately complete assigned duties” was changed to “My team adequately completes its assigned duties”. The results indicated that team job crafting was related to individual performance via the hypothesized mediation paths, indicating that job crafting can be simultaneously used at the individual and the team level to improve job performance. Besides these studies, there were a number of additional papers investigating the association between job crafting and performance, all building on the JR-D conceptualization of job crafting (Tims, Bakker, & Derks, 2014; Tims, Bakker, & Derks, 2015).

Overall, a number of studies have found support for a positive association between job crafting and performance. However, the majority of these studies were focusing on team level crafting (Leana et al., 2009; McClelland et al., 2014; Tims et al., 2013).

Moreover, after an extensive literature search, only four studies were identified that investigate the relationship between job crafting and performance, adapting the job crafting conceptualization of Wrzesniewski and Dutton (2001), and two of these four studies focused on collaborative, as opposed to individual level job crafting. Thus, as far as I am aware, as of yet there are only two studies by Laurence (2010) and Weseler and Niessen (2016) that looked at the link between individual level job crafting and performance. The paper by Laurence (2010) is an unpublished a doctoral dissertation that investigated the relationship between individual level job crafting and performance. However, the data in both studies was collected in a cross-sectional manner, hence there are some limitations regarding the potential for common method bias.

In order to contribute to the, as of yet, limited understanding of job crafting's influence on performance, my research investigates the relationship between individual level PSJC and job performance, assessed through both self-report and supervisor ratings.

3.6.2.2. Research on POBs and performance

Performance is also a primary outcome of interest of the research on POBs, and most specifically on OCBs. A meta-analysis conducted by Podsakoff, Whiting, Podsakoff, and Blume (2009) integrated the findings of 168 studies and concluded that OCBs were as important in performance evaluations and promotions as performing the job well. Furthermore, empirical studies by Podsakoff and associates (Podsakoff & MacKenzie, 1994; Podsakoff et al., 1997; MacKenzie et al., 1998) found that the helping behaviour dimension of OCB contributed to organizational performance in the form of increased sales, and increased product quantity and quality. Beyond the OCB literature, there is indication that other forms of POBs can contribute positively to performance. A study on providing assistance in social networks (Shah, Cross, & Levin, 2018) found that

individuals who engage in knowledge sharing received higher performance evaluations. Moreover, research investigating mentoring behaviours have a higher level of subjective job performance and career success (Ghosh & Reio, 2013).

There are multiple reasons why engaging in POBs contribute to better performance. Based on the Social Exchange Theory, due to the beliefs in a just word and reciprocity, many people think that those who give are supposed to receive as well (e.g., Emerson, 1976; Cook, Cheshire, Rice, & Nakagawa, 2013). Therefore, when employees behave prosocially, peers tend to respond in a similar manner. Further, engaging in prosocial behaviours can result in the actor being perceived as competent by peers (Salamon & Deutsch, 2006), hence building confidence for the actor. POBs can also paint one's competence in a less threatening light for others, thus instead of being viewed as competitors, employees who behave prosocially will be viewed as allies (Casciaro & Lobo, 2008). Moreover, individuals can gain respect by putting others' interest first, and peers, groups, and supervisors tend to reward individual sacrifice and loyalty (Hardy & Van Vugt, 2006). Considering reasons from a learning perspective, the more time we spend on solving others' problems, the more we enhance our abilities to solve that problem. Knowledge sharing does not only enable the recipient to learn, but it can help the provider too (Shah, Cross, & Levin, 2018). Helping others can contribute to improving our expertise, as it provides an opportunity to further improve our skills, and provides an opportunity to learn from others at the same time. Furthermore, through providing advice, employees take the perspectives of others, which can in turn create new ideas (McGrath, Vance, & Gray, 2003). In regard to reasons from a motivational perspective, employees may get feelings of appreciation when they act prosocially towards others (Elliott, Kao, & Grant, 2004), and may discover meaningfulness and new energy from a sense of purpose, which in turn motivates them to increase effort and work harder (Grant, 2007;

Bolino & Grant, 2016). Finally, acting in a prosocial manner can put employees in a good mood, given that the behaviour is effective and voluntary (Weinstein & Ryan, 2010). An improved mood can improve the perception of less favourable tasks, leading to improved effort (George & Brief, 1992).

Several empirical studies have investigated the influence of POBs beyond individual performance. Group performance benefits of prosocial behaviours such as helping were empirically examined in a number of settings, namely retail stores (George & Bettenhausen, 1990), intelligence teams (Hackman & Wageman, 2007), paper mills (Podsakoff, Ahearne, & MacKenzie, 1997), restaurants (Walz & Niehoff, 2000), and military units (Ehrhart, Bliese, & Thomas, 2006). These findings provide further support to the relevance of the topic. Although my research mainly focuses on the individual level findings as the POB of interest, namely PSJC, is investigated at an individual level in this thesis.

3.6.2.3. Development of Hypotheses 2-7

Based on the above discussed reasons, my research proposes that PSJC, as a form of job crafting and a form of POB at a task, relational and cognitive level will result in improved individual level job performance. I hypothesize that all three facets of PSJC will lead to increased performance. As this is an exploratory study with no existing research on the subject, the theoretical contribution will be richer and our understanding of the concept could be enhanced further by examining the underlying dynamics of all three PSJC dimensions separately. Coming from a positive organizational psychology perspective, I theorize that PSJC does not distract employees from performing their tasks and does not undermine their core job duties.

As outlined in section 3.6.2.1, there are a number of studies that support a positive relationship between job crafting and performance. Crafting a job that better fits the individual's needs and results in a more enjoyable work environment can result in positive outcomes for the individual. As noted in section 3.6.2.1, taking proactive steps to tailor one's task or relational environment, and a reframing of one's own job tasks, and relationships at work with the aim of individual need satisfaction is likely to improve the performance one gives (Leana et al, 2009; Laurence, 2010; Weseler & Niessen, 2016). However, only a limited number of studies on job crafting and performance adapted the job crafting conceptualization of Wrzesniewski and Dutton (2001), as the majority of studies on job crafting and performance utilized the JD-R framework of job crafting. Moreover, only two studies were identified (Laurence, 2010; Weseler & Niessen, 2016) that investigated the relationship between individual level job crafting and performance, both with noteworthy limitations. Thus, examining the relationship between the three dimensions of PSJC and performance outcomes will contribute to the fairly limited existing knowledge on the relationship between individual level task, relational, cognitive crafting, and performance.

As discussed above in section 3.4., PSJC is a form of POB, therefore the implications of existing research on the relationship between POBs and performance are relevant. There are a number of explanations why PSJC might influence performance. From a social exchange perspective, many people feel strongly that those who give ought to receive (e.g., Emerson, 1976), hence employees who engage in PSJC may have an improved performance due to the support of their beneficiaries. As Bolino and Grant (2016) concluded building on the work of Burriss (2012), "employees earn respect for putting the interests of others first, and groups tend to reward loyalty and individual sacrifice (p. 26)". Moreover, from a motivational perspective, employees may feel that

they matter as a consequence of benefiting others (Elliott, Kao, & Grant, 2004), and this strengthened sense of meaning and purpose can in turn energize them to work harder and better (Grant, 2007). At last, individuals engaging in PSJC can acquire skills and knowledge through helping to solve the problems of beneficiaries (Shah, Cross, & Levin, 2018).

Building on the above rationale supporting the positive relationship between job crafting and performance and prosocial organizational behaviours and performance, I hypothesize the following:

Hypothesis 2: TPSJC positively predicts (a) self-report performance, and (b) supervisor ratings of performance.

Hypothesis 3: RPSJC positively predicts (a) self-report performance, and (b) supervisor ratings of performance.

Hypothesis 4: CPSJC positively predicts (a) self-report performance and (b) supervisor ratings of performance.

Moreover, in accordance with the above reasoning, in Hypotheses 5-7 I integrate my arguments for Hypotheses 1-4, and theorize that prosocial motivation fuels TPSJC, RPSJC, and CPSJC, which in turn leads to improved performance. Consequently, I hypothesise that the three forms of PSJC mediate the relationship between prosocial motivation and performance outcomes.

Hypothesis 5: TPSJC mediates the positive effect of prosocial motivation on (a) self-report performance and (b) supervisor rating of performance

Hypothesis 6: RPSJC mediates the positive effect of prosocial motivation on (a) self-report performance and (b) supervisor rating of performance

Hypothesis 7: CPSJC mediates the positive effect of prosocial motivation on self-report performance (b) and supervisor rating of performance

3.6.3. The moderating role of prosocial job characteristics

Many individuals today are looking for employment in organizations that provide opportunities to make a positive difference (Bornstein, 2004; May, 2003; Quinn, 2000; Grant et al., 2009). Jobs can vary in opportunities in giving support, and in interacting with others. As noted in section 3.2, Grant (2007) introduced the idea of a Relational Job Design, outlining how jobs can allow and enable employees to make a positive difference in their ‘beneficiaries’ lives. “Beneficiaries are the people and groups of people whom employees believe their actions at work have the potential to positively affect” (Grant, 2007, p. 395.). Grant (2007) posits that there are two main prosocial job characteristics that can promote employees to have a positive impact on beneficiaries: jobs can offer opportunities to allow and enable employees to have a *prosocial impact on beneficiaries*, and jobs can offer opportunities to have *contact with beneficiaries*. Designing jobs with these two characteristics in mind can have positive outcomes since this leads to employees being able to recognize that their job can make a positive difference. This in turn can result in increased performance, persistence, and motivation (Grant, 2007). These findings are in line with the model of Wrzesniewski and Dutton (2001), suggesting that perceived opportunity to craft is a moderator between antecedents and job crafting behaviours. However, my thesis goes beyond perceived opportunities to act out these behaviours (‘opportunities for contact’), and also investigates the role of the perceived level of impact. My research argues that the level of these two prosocial job characteristics may be an important moderator of the relationship between prosocial motivation and PSJC. I argue, that the influence of prosocial motivation on PSJC behaviours depends on the level of perceived impact and perceived level of contact experienced by the individual. Next, I discuss these proposed moderation affects in more details.

3.6.3.1. The moderating role of prosocial contact with beneficiaries

Grant (2008b) posits that “jobs can vary relatively independently in the frequency, breadth, and depth of opportunities for contact with beneficiaries that they provide” (p. 22.), and found support for this argument in literature on service work and social networks (e.g., Brass, Galaskiewicz, Greve, & Tsai, 2004). Studies demonstrate that frequent contact with beneficiaries is common in service jobs where employees regularly interact with clients or customers (Gutek, Bhappu, Liao-Troth, & Cherry, 1999). However, I argue that colleagues and co-workers can be considered as beneficiaries as well, and frequent contact with others is not restricted to service jobs. Contact with beneficiaries vary in three dimensions, namely frequency, breadth, and depth. “Contact frequency is how often the job provides opportunities to interact with beneficiaries, contact breadth is the degree to which the job provides opportunities to interact with a variety of different beneficiaries, and contact depth is the degree to which the job provides opportunities for meaningful interactions with beneficiaries” (Grant, 2008b, p. 22.).

I propose that, similarly to prosocial impact, the perceived level of contact with beneficiaries positively moderates the relationships between prosocial motivation and the three facets of PSJC. Contact with beneficiaries enables employees to engage in PSJC behaviours, due to the social and prosocial nature of these job crafting behaviours. Therefore, I argue that the relationship between prosocial motivation and PSJC depends on the level of contact with beneficiaries, as a higher level of prosocial contact strengthens these relationships.

***Hypothesis 8:** Perceived prosocial contact with beneficiaries positively moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

3.6.3.2. The moderating role of prosocial impact on beneficiaries

As noted above, in their recent review on prosociality, Bolino and Grant (2016) recommended the integration of three dimensions, namely prosocial motivation, prosocial behaviours, and prosocial impact. Motivation to craft intensifies when employees perceive that there is an opportunity to craft (Wrzesniewski & Dutton, 2001). Concerning PSJC, ‘perceived opportunities to craft’ largely depends on the design of the job (Grant, 2007). Grant (2008b, p. 20.) posits that “jobs are not only designed with social characteristics that enable employees to interact with other people; they are also designed with prosocial characteristics that enable employees to benefit other people”. One of these job characteristics is the perceived level of prosocial impact on beneficiaries. Research on prosocial impact is still in its infancy compared to research on prosocial motivation and POBs. Perceived prosocial impact can be defined “as the judgment that one’s actions are beneficial to other people” (Grant & Sonnentag, 2010, p. 14.). Although research on job design has early on recognized the importance of experienced meaningfulness at work (e.g., Hackman & Oldham, 1976), this concept only reflects a sense that one’s job is worthwhile in general. Meaningfulness alone does not necessarily tap into the sense that one’s job is making a positive difference for others. Further, while research shows that feelings of meaningfulness may explain certain workplace behaviours and contribute to improved job performance (Humphrey, Nahrgang, & Morgeson, 2007), Grant (2008b) demonstrates that it is also beneficial to examine how employees’ understanding of prosocial impact may be relevant to their job performance. Prosocial impact can boost positive emotions of inspiration and excitement by encouraging employees to reflect positively on their work. Perceived prosocial impact allows employees to recognize that their job has the potential to do good, and in turn this results in increased efforts by the employees (Grant, 2008b). Therefore, I posit that the level of PSJC behaviours partly

depend on the level of perceived prosocial impact. Prosocial impact on beneficiaries positively moderates the relationship between prosocial motivation and the three dimensions of PSJC, by strengthening these three relationships.

***Hypothesis 9:** Perceived prosocial impact on beneficiaries positively moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

3.7. Chapter conclusion

Chapter 3 introduced and discussed the concept of PSJC, and its distinctions from general job crafting and related POB concepts. This was followed by the topic of measurement, and it was concluded that there are no existing scales for measuring PSJC. Thus, in order to investigate PSJC and contribute to the field of job crafting and POBs, there is a need to develop and validate a new measure (outlined in Chapter 4). The final section of this chapter introduced and elaborated on the theoretical model on my PhD research, and proposed nine hypotheses. The conceptual framework and the nine hypotheses is assessed in Chapter 5.

CHAPTER 4: SCALE DEVELOPMENT AND VALIDATION

4.1. Chapter overview

In Chapter four I first discuss the philosophical and ethical considerations of the thesis, and then move onto describing the first two (out of three) empirical studies of the thesis. The first two studies, Study 1a and Study 1b, outline the development and validation process of the self-developed measure of prosocial job crafting, namely the Prosocial Job Crafting Measure (PSJCM). As discussed in Chapter 3, the phenomenon of PSJC is a new construct and there is no known scale for its measurement. Therefore, in order to be able to test the construct of interest, I developed a new scale. The scale was developed, and its test validity was assessed in five stages, across 3 samples. The first two samples were created from randomly splitting data from 500 questionnaire participants from the United States, collected via Amazon Mechanical Turk. Sample 3 was collected at two time points, from library employees working across seven university libraries in the United Kingdom. 243 participants completed the questionnaire at Time 1 (T1) and 122 participants at Time 2 (T2). In order to establish test validity, the presence of three types of validity have to be demonstrated, namely content validity, construct validity (convergent and discriminant construct validity), and criterion validity (Bagozzi et al., 1991).

The first four steps of the scale development and validation process were conducted in the frame of Study 1a, and are outlined in Section 4.3. In the *first stage* I generated the items of the new measure, examined face and content validity, and selected the final item pool to test further. In the *second stage* I conducted an Exploratory Factor Analysis on sample 1 and examined the reliability of the emerging subscales, and the total scale as well. In the *third stage* I conducted a Confirmatory Factor Analysis on sample two, and tested the invariance of the factor loadings across groups (male, female) and

samples (sample 1, sample 2). In the *fourth stage* of the validation process, I tested the construct validity of the measure by investigating the presence of convergent and discriminant construct validity through various tests, using both Sample 1 and Sample 2. Section 4.4 outlines study 1b, the *fifth and final stage* of the scale validation process. PSJCM was tested for criterion validity, using Sample 3. Criterion validity will be achieved when the scale relates to an external criterion that seems to be a result of prosocial job crafting (Law, Wong, & Song, 2004).

4.2. Philosophical foundations of the research

Research philosophy refers to a “system of beliefs and assumptions about the development of knowledge” (Saunders, Lewis, & Thornhill, 2016 p. 124). These assumptions include ontological, epistemological and axiological assumptions. Our ontological assumptions refer to our views on the nature of reality, and how we study and view our research subjects and objects. The questions of ontology seek answers to: What is 'real'? What is not 'real'? What kind of objects exist in the social world? Moreover, whether social entities exist independently of our perceptions of them, or are they dependent on our perceptions. In other words, is social reality external to social actors or is it constructed by them (Saunders et al., 2016)? If we consider the objective and subjective extremes in relations to ontology, we can see a clear divide. Objectivism states that meaning exists in the world independently from social actors, while subjectivism considers meaning as the product of our interaction with the world.

Epistemological assumptions concern our view on human knowledge, essentially our ‘knowledge about knowledge’. It seeks answer to the question of what constitutes acceptable knowledge, and what the appropriate way is to study our research objects and subjects. Is it appropriate to study the subjects of social sciences with the same objective

methods that are used in natural sciences? Or should we treat the subjects of social sciences (people and their institutions) as fundamentally different from the objects of natural sciences. The two opposing extremes within epistemology are positivism and interpretivism. Positivist researchers advocate that social sciences should be studied in the same objective way as natural sciences, in a process unaltered by the values of the researcher. On the other hand, interpretivist researchers are critical of applying the same methods for social and natural sciences, as they believe that the subjects of social sciences have to be explored and understood in a more subjective manner (Breakwell, Hammond, & Fife-Schaw, 2012).

Axiological assumptions concern the role and influence of our values in the research process (Saunders et al., 2016). Should research be conducted in a value free manner? Or is it acceptable to allow our values influence our decisions throughout the research process? While interpretivism advocates that values are an essential part of research and they should be reflected on and acknowledged in the process of reflexivity (reference), positivism recommends eliminating the influence of values as much as possible. These three dimensions of assumptions inevitably shape our understanding of our research questions, and influence the choice of research methods and the way we interpret our findings (Crotty, 1998). Purists have arisen on both the quantitative and qualitative side as a result of a 'paradigm war' (Lincoln & Guba, 1985). Advocates of quantitative or qualitative research designs argue that these designs are underpinned by opposing assumptions, namely positivism and interpretivism.

Positivists believe that to be able to objectively identify meaning and knowledge through empirical observations, the personal values and biases of the researcher have to be eliminated. In other words, the researcher should remain emotionally detached from the object or subject of the study (Popper, 1959). Based on the positivist approach, the

aim of the research process is to identify generalizable laws based on investigating a set of hypotheses, and statistically verify or reject the assumptions regarding the relationships between the predictor and outcome variables (Benton & Craib, 2010). The most common research design associated with the positivist paradigm is survey, and the methods are most often questionnaires, randomised controlled trials and structured interviews (McEvoy & Richards, 2006). On the other hand, interpretivism puts a great emphasis on the subjective way how social reality is understood and constructed.

Qualitative purists argue that objective and context-free generalizations are not possible. Interpretivists argue that in order to understand the multiple-constructed realities around us, we have to take a subjective approach and explore the point-of view of our research subjects (Lincoln & Guba, 2000). Therefore, allowing the researcher's values to influence the research process is accepted and reflected upon. The most common research methods associated with the interpretivist paradigm are qualitative methods, such as unstructured interviews, case studies, ethnography and observation (Goering & Streiner, 1997; Strauss & Corbin, 1997). Whether or not quantitative and qualitative methods could and should be combined has been a bone of contention between the two opposing methodological stances, namely the purists and the pragmatists (Tashakkori & Teddlie, 1998). Although there are a number of recognized paradigmatic differences between the two research approaches, there are also similarities. Sechrest and Sidani (1995, p. 78) posit that both approaches "describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did." Both qualitative and quantitative research designs use empirical observations to investigate research questions/hypotheses, and both aim to provide justified declarations about the research subjects, namely individuals, specific groups of people, and their environment (Biesta & Burbules, 2003). Considering the similarities and the advantages

of method triangulation, mixed methods research is becoming increasingly recognized as the third major research paradigm.

Mixed methods research can be defined as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study or set of related studies” (Johnson, Onwuegbuzie, & Turner, 2007, p.120.). Mixed methods research has to be underpinned by a philosophy that allows the combination of the insights/views of quantitative and qualitative research (Johnson & Onwuegbuzie, 2004). Pragmatists argue that research approaches can be fruitfully mixed in order to offer the best way for addressing research problems (Hoshmand, 2003), and they advocate an action-oriented view, as in concepts are only relevant where they support action (Kelemen & Rumens, 2008). Pragmatism asserts that aspects such as the nature of knowledge, meaning, belief, and concepts should be viewed in terms of their practical uses and successes (Murphy, 1990). According to Dewey (1948, p. 132) "in order to discover the meaning of the idea [we must] ask for its consequences". In other words, when judging ideas, we need to consider their empirical and practical consequences. Pragmatism rejects traditional dualisms and advocates building bridges between objectivism and subjectivism, and reconcile facts and values (Saunders et al., 2016).

Pragmatism is endorsed as a philosophy that can help to ease the divide between conflicting philosophies. However, it has some shortcomings. As an example, pragmatism is criticized to put less emphasis on basic research, and instead focuses on applied research as applied research has the potential to produce more practical and immediate results. Nonetheless, pragmatism remains ‘popular’ as an outcome-oriented and practical philosophical approach, offering the option of selecting methodological mixes (Onwuegbuzie & Leech, 2005).

As a pragmatist, I applied a mixed methods design for my PhD research, with the combination of semi-structured focus groups and questionnaires in order to develop and validate a measure of prosocial job crafting behaviours and to investigate the predictors and outcomes of this specific type of job crafting. According to Johnson et al. (2007, p. 124.) the research design of my empirical studies can be classified as a quantitative dominant mixed methods research: “this area on the continuum would fit quantitative or mixed methods researchers who believe it is important to include qualitative data and approaches into their otherwise quantitative research projects”. Although the qualitative phase of the research was at a considerably smaller scale, it was a necessary phase. As Collin, Onwuegbuzie, and Sutton (2006) note, one of the rationales for using mixed methods research is instrument fidelity which refers to assessing the appropriateness and/or utility of existing measures or creating new measures.

I first used semi-structured focus groups in the item generation phase, followed by questionnaires. Although the questionnaires used in the three empirical studies (Study 1a, 1b and Study 2) included mostly close ended items with fixed response formats, I also included an open ended question in the questionnaires used in Studies 1a and 1b that generated qualitative data, asking the participants to provide examples of their PSJC behaviours. Using mixed methods allows for triangulation (Turner & Turner, 2009), which is an “attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint (Cohen & Manion, 1985, p. 254)”, while Altrichter, Posch, and Somekh (1996) noted that triangulation “gives a more detailed and balanced picture of the situation” (p. 117.).

4.3. Ethical considerations (Study 1a, Study 1b, Study 2)

All stages of the three empirical studies were reviewed and approved by the Faculty Research Ethics Committee of the University of Leeds, under reference number AREA-15-128. The favourable approval decision can be found in *Appendix A*. The Ethics Committee reviewed and approved all necessary documents prior to conducting the studies such as the consent form presented to the focus group participants, the questionnaire brief, and the email invitation sent to the questionnaire participants. All participants who took part in any of the stages of the data collection process were briefed regarding the ethical consideration of my study, and their informed consent was gained.

4.4. Organizational setting (Study 1b, Study 2)

The setting of academic libraries was chosen as an ideal context for the project. In this workplace setting, employees experience a variety of workplace relationships by working closely with each other, but also with their ‘customers’ (students, faculty). Multiple studies on job crafting have been conducted with teachers (e.g., Ghitulescu, 2006; Leana, Appelbaum, & Shevchuk, 2009; Lin, Law, & Zhou, 2017), and I propose that the environment of academic libraries is a similar, and equally relevant setting (if not more so), given the more broadly applicable customer-service operative relationships present within library settings. Globalization, technology, and the increasing competition for students and funding has significantly influenced the effort of academic libraries, and the ways these libraries operate. In response to these rapid changes, “libraries are identifying new roles and responsibilities for librarians by both reinventing more traditional positions as well as creating new job roles that require different skill sets and mind sets” (Goetsch, 2008, p. 157.). Some of these changes resulted in increased amount of interactions with

students and academic faculty, providing more opportunities for engaging in proactive and prosocial workplace behaviours, such as PSJC.

4.5. Study 1a: The development and validation of the PSJCM

4.5.1. Stage 1: Item generation

Once I established the purpose of the scale, I began to construct the items. The initial item pool was developed through adapting items from existing job crafting measures (Slemp & Vella-Brodrick, 2013; Tims et al., 2012, Nielsen & Abildgaard, 2012; Leana et al., 2009; Petrou et al., 2012). These existing scales capture the concept of ‘general’ job crafting, therefore they provided a useful guidance in creating the items of the PSJCM. There were a number of items across these validated job crafting measures that were relevant to my construct. These were adapted to tap into the specific and novel type of job crafting of my interest.

The Job Crafting Questionnaire (JCQ) developed by Slemp and Vella-Brodrick (2013) was the most influential existing measure in the development of the PSJCM. As the time of the item generation stage, this was the only known validated quantitative measure that examined job crafting based on the three dimensional framework of Wrzesniewski and Dutton (2001). In addition to these adapted items, it was necessary to create new items to best capture all dimensions (task, relational, cognitive) of PSJC with a sufficient number of items. By reviewing the extant literature on what constituted the types of activities that represented prosocial job crafting, as well as examining the existing measures of job crafting, a preliminary set of 26 items were developed (*Table 5*). The items adapted from existing job crafting measures were changed to reflect the specific prosocial nature of PSJC behaviours. Some adapted items such as items 1, 2, 3, 8, 9, 10, 11 and 15 were changed by adding the phrase ‘to/that benefit others/so you can benefit others’. While other adapted items were reformulated more substantially, only adapting

the structure of the original items, rather than their content. As an example, item 12 ('Made an effort to understand the situation of others') was changed from item 14 ('Make an effort to get to know people well at work') of the original item pool of JCQ. Another example is item 22 ('Reminded yourself about the positive short term differences your job can make to/for others at work') was adapted from item 9 ('Remind yourself about the significance your work has for the success of the organisation') of the JCQ (Slemp & Vella-Brodrick, 2013).

To best measure the extent to which individuals engage in prosocial job crafting behaviours, a 1-5 Likert type response format was used from 1-Not at all to 5-A great deal: Not at all (1), Just a little (2), A moderate amount (3), Quite a lot (4), A great deal (5). The initial introduction of the items instructed the participants to consider the past three-month period when indicating the frequency of PSJC behaviours. Three months was the chosen time period because it was considered a reasonable time period for PSJC behaviours to occur. In addition, individuals ideally would not have difficulties recalling their actions for a three-month period.

Table 5: The initial item pool of the PSJCM

During the past 3 months to what extent have you voluntarily...

TPSJC:

1. Taken on additional job tasks *to benefit others*. *
2. Given preference to tasks *that benefit others at work*. *
3. Introduced new approaches to your work *that benefit others*. *
4. Changed your existing work tasks *to benefit others*.*
5. Prioritized job tasks that benefit others at work.
6. Managed your work so you *get opportunities to help others*. ◇
7. Changed minor work procedures *that you think are not beneficial for others*. ●
8. Chosen to learn new things *to benefit others at work*. #
9. Chosen to develop yourself professionally *so you can benefit others*. #
10. Actively developed your capabilities *so you can benefit others*. #
11. Asked for more responsibilities *to benefit others at work*. ○

RPSJC:

12. Made an effort *to understand the situation of others*. *
13. Increased the number of people you interact with in order to benefit others at work.
14. Decreased the number of people you interact with in order to benefit others at work.

15. Offered your advice *to benefit others*. #
16. Developed friendships with others at *work to help them*. *
17. Helped others at work with personal matters unrelated to your organization's services (e.g. small personal favours).
18. Changed the range of people you interact with (i.e. number of different positions, seniority levels, department) in order to benefit others at work.
19. Made an effort to spend more time with others at work in order to benefit them.
20. *Chosen to mentor a newcomer*. *
21. Changed the amount of collaboration with others at work to benefit them.

CPSJC:

22. Reminded yourself *about the positive short term differences your job can make to/for others at work*. *
23. Reminded yourself about *the positive long term differences your job can make to/for others at work*. *
24. Reframed your job to see it as an opportunity to have a positive impact on others at work.
25. Thought about the ways *your work positively impacts others at your job*. *
26. Changed how you think about your job to see it as an opportunity to benefit others at work.

*Item adapted from Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013) **

Item adapted from Job Crafting Scale (Tims et al., 2012) #

Item adapted from Nielsen and Abildgaard (2012) ◇

Item adapted from Leana and colleagues (2009) ●

Item adapted from Petrou et al. (2012) ○

Changes in the adapted items are indicated in italic

4.5.1.1. Pilot testing

In the next step of Stage 1, I conducted a qualitative pilot testing on the 26 items in the frame of two focus groups. Focus groups are increasingly recognized as a valuable data collection tool for qualitative research (Thomas & Quinlan, 2014), and for my research project they were an essential part of the exploratory investigation. The aim was to find out if the items and the wording of the items make sense for individuals with no expertise in Organizational Behaviour. In addition, the focus groups were also useful in generating further examples of prosocial job crafting behaviours.

All 10 study participants were employees of a large university library in the United Kingdom. Employees in university libraries work in teams and interact with colleagues

and students/academics (customers) on a daily basis. Thus, PSJC is relevant to their roles. In addition, as of yet, no studies on job crafting examined librarians as a sample. The HR manager of the institution was approached via email, and helped to recruit volunteers for focus groups. Altogether 10 employees volunteered to participate. Out of the 10 participants, 6 were females and 4 males. The age of the participants was between 27 and 56, with an average age of 41. The 10 participants had a variety of job roles within the organization, such as IT support, front desk customer support, and trainer. All participants were entered into a prize draw for a £20 shopping voucher. I decided to split the sample and use 5 participants for the first focus group, and 5 participants for the second focus group. It is commonly recommended to recruit around 5-6 participants for a 'mini-group' and this is a manageable number and due to the relatively small participant number the focus group participants would feel comfortable to share their opinion and ideas (Greenbaum, 1998). The room was set up in a circular manner so the facilitator and each of the participants could face each other.

Each of the two focus groups lasted for around 60 minutes. I gave an informed consent form to each of the participants, and informed them briefly about the study, the use of the data, confidentiality, and anonymity. After all participants signed the consent form and agreed to participate, they were provided with the definition of PSJC, and I facilitated a semi-structured discussion around the topic of prosocial job crafting behaviours. In the stage of the focus groups, I went through the 26 items of the PSJCM with the participants. I enquired for each item, whether the behaviour taps into the definition of prosocial job crafting. I also asked the participants to advise which items are not clear and to recommend changes to the wording of the items. In addition, I asked the participants to provide examples for each of the behaviours captured with the items.

4.5.1.2. Results of the pilot testing

Based on the results of the focus groups, 5 of the original items were deleted: items number 11, 13, 14, 21, and 24. The participants advised that behaviours such as ‘Asked for more responsibilities to benefit others at work’ or ‘Increased the number of people you interact with in order to benefit others at work’ are too specific and would rarely occur in their daily working life. In addition, the study participants recommended some changes in the wording of items 1, 4, 8, 15, 16, 20, and 26 to make them more clear and easier to understand. As an example, one of the participants advised that changing item number 4 ‘Changed your existing work tasks to benefit others’ to ‘Changed *some aspects* of your existing work tasks to benefit others’ would be less broad, thus it would generate more examples by future questionnaire participants. Also, it was recommended to change item number 15 ‘Offered your advice to benefit others’ to Offered *informal* advice to benefit others’ in order to better represent the relational aspect of prosocial job crafting. Moreover, some changes were made in the introduction to the measure as the participants noted that the instruction should be more detailed and clear. The item pool of the 21 items after the pilot testing can be found in *Table 6* (the changes made in the wording of the items and the introduction are indicated in *Italic*).

Table 6: The PSJCM item pool following pilot testing

*Below you can find statements of particular behaviours and thoughts that are about **proactively helping other people you interact with at work**. For example, we are interested in how often you take on additional tasks in order to help others. So we are not only interested in how often you take on extra tasks, but we would like to know how often you do so to benefit others at work.*

*In the statements ‘**others**’ refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment. Please read each of the statements carefully and indicate that during the last 3 months to what extent have you voluntarily...*

TPSJC:

1. Taken on additional job tasks *which* benefit others.
2. Given preference to tasks that benefit others at work.
3. Introduced new approaches to your work tasks that benefit others.
4. Changed *some aspects of* your existing work tasks to benefit others.
5. Prioritized job tasks that benefit others
6. Managed your work so you get opportunities to help others.
7. Changed minor work procedures that you think are not beneficial for others.
8. Chose to learn new things *which would* benefit others at work.
9. Chosen to develop yourself professionally so you can benefit others.
10. Actively developed your capabilities so you can benefit others.

RPSJC:

11. Made an effort to understand the situation of others.
12. Offered *informal* advice to benefit others.
13. Developed friendships with others at work *through helping* them.
14. Helped others at work with personal matters unrelated to your organization's services (e.g. small personal favours).
15. Changed the range of people you interact with (e.g., people with different seniority levels, people from other departments) in order to benefit others
16. Made an effort to spend more time with others at work in order to benefit them.
17. Chosen *to informally* mentor a newcomer.

CPSJC:

18. Reminded yourself about the positive short term differences your job can *make to* others at work.
19. Reminded yourself about the positive long term differences your job can make to others at work.
20. Thought about the ways your work positively impacts others at your job.
21. Became more aware of the opportunities your job offers to benefit others.*
(*previously: '*Changed the way you think about your job to see it as an opportunity to benefit others at work*').

4.5.1.3. Assessing Content validity

Content validity reflects the degree to which the items of a scale represent the measured construct (Haynes, Richard, & Kubany, 1995). Similarly to the approach of Chen, Gully, and Eden (2001), the content validity of the 21 items was assessed independently by five Organizational Psychology researchers from a UK and two Hungarian universities. All of the researchers were familiar with the concept of general job crafting. I provided each academic with the definition of prosocial job crafting, and asked them to examine the overall cohesiveness of the PSJCM item pool, and to indicate which items do not

encapsulate the construct based on the definition (Leach, Hagger-Johnson, Doerner, Wall, Turner, Dawson, & Grote, 2013). Following the individual recommendations of the individual researchers, the items that were judged to be difficult to understand, poorly worded, and not relevant for the concept of interest were changed or deleted (Bennett & Robinson, 2000). All five academics recommended to amend the introduction of the scale as it was leading in terms of explaining what the measure aims to capture. Moreover, it was noted by two of the scholars that the introduction is moderately probing the participants to answer in a socially desirable way to positive working behaviours. With the aim of reducing response bias (Fisher, 1993), the researchers recommended to change the tone of the introduction to be more neutral. Furthermore, three of the experts recommended to use question marks at the end of the items instead of full stops, as the description *'to what extent have you voluntarily...'* indicates a question. Considering further recommendations by the five researchers, the following changes were made to the item pool in order to improve content validity:

- deleted item number 2 ('Given preference to tasks that benefit others at work') as it was too similar to item number 5 ('Prioritized job tasks that benefit others')
- deleted item number 7 ('Changed minor work procedures that you think are not beneficial for others') to avoid negatively worded items
- reworded item 11 ('Made an effort to understand the situation of others') as it was too vague and did not capture the exact behaviour of interest
- reworded item 13 ('Developed friendships with others at work through helping them') so it would be process and not outcome oriented
- duplicate item number 14 ('Helped others at work with personal matters unrelated to your organization's services') in order to create separate items to capture work and non-work related personal matters

- change the wording of item 17 ('Chosen to informally mentor a newcomer') so it is consistent with the introduction to the scale
- combine items 18 ('Reminded yourself about the positive short term differences your job can *make to* others at work') and 19 ('Reminded yourself about the positive long term differences your job can make to others at work') into one item because it is not necessary to make a separation between the short and the long term positive differences the work can make for others
- made minor changes in the wording of items 1, 6, 8, 9, 10 to make the items more clear and easy to understand

These changes, however, resulted in only three items remaining that reflected the dimension of cognitive prosocial job crafting. In order to avoid a less than three item subscale for this latent variable following the exploratory factor analysis, an additional item was generated for the cognitive subscale. Two of the researchers recommended to create an item that reflects the action of changing one's thinking. Thus, the new item was created considering this advice: 'Changed your views on your work to see its importance for others'. This process resulted in the final set of 20 items, prior to EFA (*Table 7*).

Table 7: Final introduction and item pool of PSJCM prior to EFA

Below you can find statements of particular behaviours that are about **the nature of your work tasks and your interaction with others at work**. In the statements 'others' refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment.

Please read each of the statements carefully and indicate that during the last 3 months to what extent have you voluntarily...

Task items:

1. Taken on additional work tasks that benefit others?
2. Introduced new approaches to your work tasks that benefit others?
3. Changed some aspects of your existing tasks to benefit others?

4. Prioritized work tasks that benefit others?
5. Managed your tasks to create opportunities to help others?
6. Learned new things to benefit others at work?
7. Developed yourself professionally to benefit others at work?
8. Developed your capabilities to benefit others at work?

Relational:

9. Interacted with others at work to understand how you can benefit them?
10. Offered informal advice to benefit others at work?
11. Developed friendships with others at work to benefit them?
12. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)?
13. Helped others at work with work related personal matters (e.g., conflict with a colleague)?
14. Changed the range of people you interact with (e.g., people with different seniority levels, people from other departments) in order to benefit others?
15. Made an effort to spend more time with others at work in order to benefit them?
16. Mentored a newcomer informally?

Cognitive items:

17. Thought about the ways your work positively impacts others?
18. Reminded yourself about the positive differences your work can make to others?
19. Became more aware of the opportunities your work offers to benefit others?
20. Changed your views on your work to see its importance for others?

4.5.2. Stage 2: Exploratory Factor Analysis

In stage two I conducted an exploratory factor analysis with maximum likelihood extraction and oblique rotation on sample 1 in SPSS 24. The aim was to establish the underlying factor structure of the PSJCM, and to determine the number of factors required to explain the correlations among the set of twenty items (Tabachnick & Fidell, 2013). Furthermore, the internal consistency of the subscales and overall scale was assessed. At the stage on the EFA, the main objective is to see an underlying structure of the items that represent the three dimensional structure of PSJCM:

Objective 1: The prosocial job crafting measure will return a three-factor structure reflecting the three dimensions of prosocial job crafting (TPSJC, RPSJC, CPSJC)

4.5.2.1. Sample and procedures

Questionnaire responses from 500 full time employees were collected using Amazon Mechanical Turk. Each participant was rewarded with \$1 for completing the survey, and they were required to answer each of the questions of the survey. Therefore, there was no missing data in responses.

Data obtained via Amazon Mechanical Turk has psychometric properties similar to data obtained using other microwork sites and convenience sampling methods (Buhrmester, Kwang, & Gosling, 2011; Paolacci & Chadler, 2014). Amazon Mechanical Turk is externally valid to use for field studies (Sprouse, 2011), and Lanaj, Johnson, and Barnes (2014) observed findings that can be compared with findings based on MBA student samples. The 500 participants were randomly split using the randomisation function of SPSS. The responses of the randomly selected 200 participants were used for the purpose of EFA (sample 1), and the data for 300 participants were used for conducting CFA (sample 2). A sample of 200 for EFA is satisfactory applying a 10 to 1 ratio (10 participants/1 item) based on Nunnally (1978). The full sample of 500 participants was used to conduct further analysis in stages 4 and 5.

In sample 1 (N = 200), the gender ratio was almost equal with 52% of the participants being male (SD = .501). The participants' age ranged from 20 to 68, with the mean age of 33.7 (SD = 9.40). The majority of the participants was American (94%, SD = .24), and 6% not American. The job tenure of the respondents ranged from 1 month to 30.2 years, with the average job tenure of 5.56 years (SD = 5.62). In regard to weekly working hours, 9.5% of the participants worked 20-29 hours, 23% worked 30-39 hours, 59% worked 40-49 hours, and 8.5% worked 50 hours or more (SD = .76). Based on the categorization by ISCO (International Standard Classification of Occupations) 4 categories were created from the 9 category classification. Most of the participants

worked in professional and administrative occupations with 57.5%, 22.5% worked in customer service, sales, or other service occupations, 10.5% worked in managerial roles, and 9.5% worked in skilled trade or elementary occupations ($SD = .79$).

At their workplace, the respondents interacted most frequently with colleagues and co-workers (68.5%), customers and clients (18%), and 13.5% interacted equally with colleagues and customers ($SD = .72$). All demographic variables were normally distributed with Skewness and Kurtosis values within the ± 2 limit (Trochim & Donnelly, 2006).

4.5.2.2. Measures

At the beginning of the questionnaire, I included a screening question in order to collect responses only from participants who worked at least 20 hours a week. I decided that this was necessary because individuals who work less than 20-hours/week could have limited opportunities to engage in these specific workplace behaviours. The participants who did not qualify were unable to progress with the survey. All participants were administered the same questionnaire, including the 20 item PSJCM. The participants were asked to provide their nationality, age, gender, job tenure, job role and weekly working hours for control purposes. The questionnaire brief informed the participants of the anonymous and confidential nature of the study. The questionnaire used in Study 1a can be found in *Appendix B*.

4.5.2.3. Results of EFA

In the present study, Maximum likelihood was the preferred extraction method as opposed to Principal Component Analysis (PCA). PCA can provide the user with an empirical summary of the data (Tabachnick & Fidell, 2013) and it is a good tool for data

reduction purposes (Linley, Maltby, Wood, Osborne, & Hurling, 2009). However, in a scale development process Maximum Likelihood is the more commonly used extraction method (e.g., Carlson & Brown, 2005; Slemp & Vella-Brodrick, 2013; Tims et al., 2012), in order to improve the generalizability of the results to a wider population. According to Fabrigar, Wegener, MacCallum, and Strahan (1999), with normally distributed data, Maximum Likelihood (ML) is the best choice because “it allows for the computation of a wide range of indexes of the goodness of fit of the model and permits statistical significance testing of factor loadings and correlations among factors” (p. 277). In addition, ML assumes that there are measurement errors in the dataset. Since PSJCM is a self-developed measure, measurement errors might occur.

Direct Oblimin was the chosen rotation method because the factors in this study are correlated, with correlation coefficient values of $r = .62, p < .001$; $r = .52, p < .001$, and $r = .51, p < .001$. Oblique rotation allows the factor solutions to be correlated, and it is the recommended rotation method in case the factors are more strongly correlated (Tabachnick & Fidell, 2013). To assess the data’s suitability for factor analysis, the strength of the intercorrelations among the items was assessed and a Bartlett’s test of sphericity and Keiser-Meyer-Olkin (KMO) test were conducted. The intercorrelations were examined by inspecting the item correlation matrix. According to Tabachnick and Fidell (2013), the majority of the correlations between items should be above .3 for factor analysis to be appropriate. Weak intercorrelations among the majority of the items indicate the lack of factors within the measure. In the case my study, this assumption is satisfied (*Table 8*) as most of the intercorrelations were above .3.

Table 8: The correlation matrix for the initial 20 items of the PSJCM

Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1																			
2	.55**	1																		
3	.60**	.71**	1																	
4	.67**	.56**	.68**	1																
5	.62**	.54**	.61**	.74**	1															
6	.42**	.48**	.48**	.47**	.57**	1														
7	.40**	.46**	.48**	.51**	.55**	.66**	1													
8	.50**	.51**	.52**	.45**	.52**	.62**	.72**	1												
9	.50**	.40**	.49**	.51**	.59**	.43**	.45**	.55**	1											
10	.39**	.42**	.43**	.33**	.40**	.37**	.34**	.29**	.50**	1										
11	.44**	.37**	.42**	.40**	.46**	.39**	.39**	.42**	.51**	.45**	1									
12	.27**	.32**	.31**	.30**	.33**	.29**	.18*	.19**	.29**	.46**	.49**	1								
13	.26**	.30**	.35**	.33**	.33**	.39**	.34**	.22**	.33**	.46**	.49**	.68**	1							
14	.27**	.39**	.44**	.32**	.41**	.42**	.44**	.47**	.43**	.39**	.53**	.37**	.48**	1						
15	.49**	.54**	.60**	.52**	.58**	.43**	.42**	.49**	.53**	.47**	.60**	.54**	.49**	.66**	1					
16	.35**	.45**	.44**	.30**	.38**	.35**	.31**	.31**	.35**	.48**	.50**	.37**	.43**	.49**	.40**	1				
17	.38**	.47**	.53**	.45**	.51**	.47**	.55**	.56**	.56**	.45**	.43**	.30**	.35**	.47**	.53**	.46**	1			
18	.31**	.41**	.45**	.36**	.48**	.44**	.49**	.49**	.50**	.34**	.39**	.32**	.36**	.45**	.56**	.36**	.69**	1		
19	.37**	.41**	.45**	.36**	.48**	.44**	.49**	.49**	.50**	.42**	.44**	.30**	.38**	.45**	.56**	.45**	.65**	.79**	1	
20	.38**	.48**	.51**	.44**	.52**	.52**	.50**	.56**	.56**	.43**	.42**	.34**	.42**	.54**	.56**	.38**	.69**	.70**	.68**	1

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

Furthermore, the Bartlett's Test of Sphericity (BTS) yielded a significant value ($p < .001$), hence providing support that my study sample is from populations with equal variances. The KMO measure of sampling adequacy measures sampling adequacy for each of the variables in the model, and the complete model as well. The test indicates the proportion of variance among variables that might be common variance. The lower the proportion, the more suited the data is for EFA. The value of the KMO test was .923 exceeding the recommended value of .6 (Field, 2013), hence satisfying this assumption for EFA. As a criterion to retain factors, those factors that had an Eigenvalue more than 1 were retained. In addition, a scree plot was generated and assessed. Based on the scree plot and the Eigenvalues a three-factor solution was identified, explaining a total of 57.87% of the variance. The first factor refers to prosocial task crafting, the second factor refers to prosocial relational crafting and the third factor represents the cognitive dimension of prosocial job crafting.

In regard to item selection, the items that loaded .35 or higher on the expected factor (Costello & Osborne, 2005; Floyd & Widaman, 1995; Tims et al., 2012) were retained. Additionally, for each retained item the loading on the appropriate factor was

expected to be twice the size of any cross-loading on the other two factors (Podsakoff, Ahearne, & MacKenzie, 1997). The factor loadings of the initial EFA are presented in *Table 9*, with the high and moderate loadings highlighted in bold ($\geq .30$).

Table 9: Factor loadings from EFA of the 20 item PSJCM

Items	Factors		
	1	2	3
<i>TPSJC</i>			
1. Taken on additional work tasks that benefit others	.84	.05	-.14
2. Introduced new approaches to your work tasks that benefit others	.59	.11	.10
3. Changed some aspects of your existing tasks to benefit others	.68	.11	.09
4. Prioritized work tasks that benefit others	.89	.02	-.10
5. Managed your tasks to create opportunities to help others	.71	.05	.12
6. Learned new things to benefit others at work	.40	.06	.32
7. Developed yourself professionally to benefit others at work	.40	-.09	.45
8. Developed your capabilities to benefit others at work	.42	-.11	.42
<i>RPSJC</i>			
9. Interacted with others at work to understand how you can benefit them	.38	.12	.31
10. Offered informal advice to benefit others at work	.18	.42	.13
11. Developed friendships with others at work to benefit them	.19	.54	.09
12. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)	-.03	.86	-.12
13. Helped others at work with work related personal matters (e.g., conflict with a colleague)	-.07	.81	.01
14. Changed the range of people you interact with (e.g., people with different seniority levels, people from other departments) in order to benefit others	.03	.45	.31
15. Made an effort to spend more time with others at work in order to benefit them	.26	.49	.21
16. Mentored a newcomer informally	.12	.44	.16
<i>CPSJC</i>			
17. Thought about the ways your work positively impacts others	.10	.06	.71
18. Reminded yourself about the positive differences your work can make to others	-.13	.07	.91
19. Became more aware of the opportunities your work offers to benefit others	-.01	.08	.81
20. Changed your views on your work to see its importance for others	.07	.14	.68

Based on these criteria, I decided to delete items 6, 7, 8, 9, 14 and 15 because they were loading moderately or highly on more than one factors. Following the one-by-one

deletion of the problematic items, the rotated solution revealed the presence of a simple factor structure, where all of the items met the inclusion criteria. All three factors are showing a number of strong loadings and all items are loading substantially on only one factor. Thus, I concluded that *Objective 1* was met and satisfied. The remaining 14 items explained 61.1% of the total variance and all of the item communalities were above the recommended value of .3 (Field, 2013). The factor loadings of the remaining 14 items are presented in *Table 10* with the loadings above .4 highlighted in bold.

Table 10: Means, standard deviations, and factor loadings of the remaining 14 items of the PSJCM

Items	Factors				
	M	SD	1	2	3
<i>TPSJC</i>					
1. Taken on additional work tasks that benefit others	3.16	1.04	.836	.00	.10
2. Introduced new approaches to your work tasks that benefit others	2.73	1.18	.62	.05	-.12
3. Changed some aspects of your existing tasks to benefit others	2.64	1.09	.72	.03	-.12
4. Prioritized work tasks that benefit others	2.93	1.13	.91	-.01	.08
5. Managed your tasks to create opportunities to help others	2.99	1.15	.71	-.00	-.15
<i>RPSJC</i>					
6. Offered informal advice to benefit others at work	3.24	1.08	.17	.41	-.14
7. Developed friendships with others at work to benefit them	3.11	1.16	.20	.47	-.12
8. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)	2.63	1.16	-.03	.83	.07
9. Helped others at work with work related personal matters (e.g., conflict with a colleague)	2.78	1.07	-.09	.90	.00
10. Mentored a newcomer informally	2.75	1.32	.14	.40	-.17
<i>CPSJC</i>					
11. Thought about the ways your work positively impacts others.	2.98	1.12	.13	.02	.70
12. Reminded yourself about the positive differences your work can make to others	3.02	1.17	-.11	-.02	.97

13. Became more aware of the opportunities your work offers to benefit others	2.88	1.22	.01	-.00	.87
14. Changed your views on your work to see its importance for others.	2.56	1.17	.10	.10	.67

4.5.2.4. Reliabilities

The reliability for each of the three subscales and the overall scale was assessed using sample 1. All three subscales and the overall PSJCM yielded good internal consistency, with Cronbach's α values above the recommended minimum value of .7 (DeVellis, 2016): TPSJC .89, RPSJC .81, CPSJC .90, and overall scale .92.

4.5.3. Stage 3: Confirmatory Factor Analysis

In stage three a Confirmatory Factor Analysis (CFA) in Amos 24 was conducted to test the goodness of fit between the specified three factor model and the sample 2 data. CFA allows a more rigorous examination of the data by using a Structural Equation Modelling approach. Moreover, a one factor solution was tested to examine whether a single factor structure is a better fit for the sample 2 data (Brown, 2014). Finally, configural and metric invariance in samples 1 and 2 was assessed with a multi-group and a multi-sample invariance test, investigating the equivalence in factor structure across the two samples and genders (Steinmetz, Schmidt, Tina-Booh, Wieczorek, & Schwartz, 2009).

4.5.3.1. Sample

In sample 2, 49% of the participants were male ($SD = .50$). The participants' age ranged from 19 to 68, with the mean age of 34.5 ($SD = 10.06$). Almost all of the participants were from the USA (96.7 %, $SD = .18$). The job tenure of the respondents ranged from 1 month to 28 years, with the average job tenure of 4.82 years ($SD = 4.29$). In regard to weekly working hours, 26.4% of the participants worked 20-29 hours, 62.3% worked 30-

39 hours, and 11.3% worked 40-49 hours ($SD = .78$). Most of the participants worked in professional and administrative occupations (51.7%), 21.7% worked in customer service, sales, or other service occupations, 18% worked in skilled trade or elementary occupations, and 8.7% worked in managerial roles ($SD = .89$). At their workplace, the respondents interacted most frequently with colleagues and co-workers (72.3%), customers and clients (15.3%), and 12.3% interacted equally with colleagues and customers ($SD = .70$).

4.5.3.2. Results

The factor loading for each of the items was significant and above the recommended minimum value of .5, with the majority of the factor loadings being above .7 (Fabrigar & Wegener, D. T., 2011). After examining the error terms associated with each of the items, I decided to delete 2 additional items that had high error terms and low factor loadings associated to them. Item 3 ‘Changed some aspects of your existing tasks to benefit others’ and item 10 ‘Mentored a newcomer informally’ were deleted in order to improve the model fit. Thus, the final item pool for further analysis was reduced to 12; 4 task items, 4 relational items, and 4 cognitive items.

The three factor structure established in the EFA for sample 1 was a good fit to the sample 2 data by multiple model fit indices. It is recommended to utilize a range of fit indices from different categories to overcome the limitations of each index (Jaccard & Wan, 1995). Both the incremental and the absolute fit indices yielded satisfactory values. Absolute fit indices can determine how well a proposed model fits the sample data (McDonald & Ho, 2002), and help to establish which proposed model has the best fit. Included in this category are the Chi-Squared test, RMSEA, and GFI (Hooper, Coughlan, & Mullen, 2008).

The RMSEA indicates how well the model would fit the population's covariance matrix (Byrne, 1998). The recommended value for RMSEA is less than .08 (Browne & Cudeck, 1993) or .05 (Stieger, 1990). Alternatively, the upper confidence interval of the RMSEA should not be more than .08 (Hu & Bentler, 1998). For the current model the RMSEA value is .062. The Goodness of Fit (GFI) value shows how closely the model replicates the observed covariance matrix (Diamantopoulos & Siguaaw, 2000). This index ranges from 0 to 1, and it is generally accepted that a value above 0.90 indicates a well-fitting model (Byrne, 1994). For my study this value is .95. The relative chi-square or normed chi-square value equals the chi-square index divided by the degrees of freedom. This value should be less than 2 or 3 (Kline, 1998; Ullman, 2001). For this study the value is 2.162.

Incremental fit indices, also referred to as relative fit indices (McDonald & Ho, 2002), are a group of indices that compare the chi-squared value to a baseline model, as opposed to using the chi-square in its original form. Included in this category are NFI, CFI, TLI and IFI. The Normed Fit Index (NFI) value varies from 0 to 1, and in this case it reaches the recommended value of .95 (Schumacker & Lomax, 2004). This value indicates that the model of interest improves the fit by 95% relative to the null or independence model. The CFI value represents the extent to which the model of interest is better than the independence model. Values closer to 1 indicate an acceptable fit. For the present study the value exceeds the recommended threshold of .93 (Byrne, 1994). The Tucker Lewis Index (TLI) fit index varies from 0 to 1, and values over .90 or over .95 are considered acceptable (Hu & Bentler, 1999). For the current model, the value is .96. The Incremental Fit Index (IFI) value can exceed 1, although a value over .90 is considered acceptable. For the current 3 factor model the value is .97. Furthermore the PCLOSE value is .102 indicating that the model is close fitting.

In the next step a CFA was conducted to examine whether a one factor model would be a better fit for the sample data. The less (or not) acceptable values of the model fit indices ($\chi^2/df = 5.34$, RMSEA = .12, NFI = .87, CFI = .89, TLI = .86, GFI = .85) indicate that the one factor solution was a worse fit for sample 2 data. The results of the two CFAs are presented in *Table 11*.

Table 11: CFA results of the 12 item PSJCM on a three and a one-factor model

	χ^2	<i>df</i>	χ^2/df	RMSEA	NFI	CFI	TLI	IFI	GFI	PCL.
Three factor model	105.93	49	2.16	.06	.95	.97	.96	.97	.95	.10
One factor model	286.27	53	5.34	.12	.87	.89	.86	.89	.85	.00

A chi squared difference test was conducted to assess if there is a significant difference between the two models. There was a chi-squared difference of 180.34 and a degrees of freedom difference of 4 between the two models, indicating a significant difference ($p < .001$) based on the chi-squared difference table ($df = 4$; > 9.45 ; $p < .05$ / $df = 4$; > 13.28 ; $p < .01$ / $df = 4$; > 18.47 ; $p < .001$). The three factor model was a significantly better fit to sample 2 data.

Finally, the configural and metric invariance of the model was tested across the two groups (genders) and two samples (Sample 1 and Sample 2) to test for the equivalence of the factor loadings. First a multi-group CFA was conducted (group 1 = males, group 2 = females) with an unconstrained model allowing all parameters to vary freely. An excellent model fit was achieved (e.g., RMSEA = .05, CFI = .97). In the next step, an additional CFA was conducted with all the factor loadings held equal, hence constraining the model. In the last step, a chi-squared difference test was conducted comparing the constrained and the unconstrained models ($\Delta df = 12$; $\Delta \chi^2 = 12.79$) returning a non-

significant result based on the chi-squared difference table: ($df = 12$; > 21.03 ; $p < .05$ / $df = 12$; > 26.22 ; $p < .01$ / $df = 12$; > 32.91 ; $p < .001$). Thus, the invariance of the factor loadings was demonstrated across samples 1 and 2.

The same analysis was then repeated assessing the equivalence of factor loadings across samples. Similarly, the chi-square difference test returned non-significant results, further establishing that the factor loadings are equivalent across groups ($df = 12$; > 3.57 ; $p < .05$ / $df = 12$; > 26.22 ; $p < .01$ / $df = 12$; > 32.91 ; $p < .001$). Furthermore, the PCLOSE value is non-significant for both the multi-group and the multi-sample models, indicating a close model fit. The results of the invariance tests are presented in *Table 12*.

Table 12: Invariance test results across groups (male, female) and samples (1 and 2)

	χ^2	df	χ^2/df	RMSE	NFI	CFI	TLI	IFI	GFI	PCLOSE
Unconstrained multi group	220.15	100	2.20	.05	.94	.97	.95	.97	.93	.55
Constrained multi group	232.94	112	2.08	.05	.93	.96	.96	.97	.93	.74
Unconstrained multi sample	221.19	100	2.21	.05	.94	.96	.95	.97	.93	.54
Constrained multi sample	224.76	112	2.01	.05	.94	.97	.96	.97	.93	.83

4.5.4. Stage 4: Establishing Construct Validity

In stage four, the construct validity of the PSJCM was assessed. Construct validity, refers to “the extent to which an operationalization measures the concept it is supposed to measure” (Bagozzi et al., 1991 p. 421). Within construct validity there are two aspects based on Campbell and Fiske (1959): convergent and discriminant construct validity. The convergent construct validity of the PSJCM can be established by demonstrating that the PSJCM is related to other constructs that are theoretically linked to the concept of PSJC. Convergent construct validity can be assessed through calculating correlation coefficients

and observing whether the concept displays a moderate or high significant correlation with theoretically similar or related concepts. In addition, convergent construct validity can be demonstrated by observing non-significant or negative correlations with theoretically unrelated concepts. Furthermore, convergent construct validity can be assessed by calculating the Composite Reliability (CR) and Average Variance Explained (AVE) scores of the PSJCM in order to assess whether it can be considered as an identifiable and separate construct (Anderson & Gerbing, 1988).

Discriminant construct validity is the extent to which measures of different concepts are distinct from each other (Bagozzi, Yi, & Phillips, 1991). Discriminant construct validity can be examined by conducting CFA's and comparing different models in which the validated construct and theoretically related (but still distinct) concepts are set to be independent from each other and then set to load on one another. Observing the model fit indices and conducting a chi-squared difference test between the model where the constructs are independent from each other and the model where the constructs are correlated can indicate the presence of discriminant construct validity.

In addition, to further investigate the presence of discriminant construct validity, the squared correlation value of the two related constructs will be compared to the AVE values. If the AVE value is higher than the squared correlation (Fornell & Larcker, 1981) for both of the constructs, there is supporting evidence for discriminant construct validity (Cousins & Menguc, 2006). It is important to recognize that convergent construct validity and discriminant construct validity work together and neither one alone is sufficient to establish construct validity. Evidence has to be demonstrated for both convergent and discriminant construct validity in order to claim that the measure being validated has construct validity (Bagozzi et al., 1991).

PSJC is a form of job crafting, thus it is expected that PSJCM is conceptually related and will display at least a moderate positive relationship with both conceptualizations of job crafting; the three structure model (Wrzesniewski & Dutton, 2001) and the job crafting conceptualization based on the JDR framework (Tims et al., 2012). In addition, PSJC is a form of discretionary behaviour that is driven by the employee rather than by management, therefore it is anticipated that all dimensions (task, relational, cognitive) of the PSJCSM would be positively correlated with other self-initiated proactive behaviours that employees can exhibit at work to enhance their enjoyment or performance. It is expected that PSJC is conceptually related to the proactive behaviour constructs personal initiative (Crant, 2000; Frese, Kring, Soose, & Zempel, 1996) because this construct refers to self-initiated changes directed at the work environment or the individual her/himself. However, because job crafting is about the changes that employees make in order to improve their person–job fit and work motivation, it is expected that job crafting is moderately positively related to personal initiative (Tims et al., 2012). Moreover, due to the prosocial nature of prosocial job crafting, it is likely that the construct is positively correlated with constructs that reflect helping others, such as the helping dimension of OCB (Robinson & Morrison, 1995; Slemp & Vella-Brodrick, 2013). In addition, in order to demonstrate a potentially negative correlation, the relationship between PSJC and manipulateness was examined. Manipulateness is “the tendency to purposely manipulate another person’s thoughts or feelings, and the excitement that follows such behaviour” (Overbeek et al., 2006 p. 434). It is expected that taking advantage of others would be negatively associated with prosocial job crafting which is assumed to be driven by prosocial intentions. Based on the above justification, the second objective of the scale development and validation process was to see evidence of construct validity:

Objective 2: TPSJC, RPSJC, CPSJC will show evidence of construct validity.

4.5.4.1. Sample

To demonstrate construct validity, Sample 1 and Sample 2 were merged and a sample of 500 participants were used to conduct the tests for convergent and discriminant construct validity.

4.5.4.2. Measures

As prosocial job crafting is a specific type of job crafting, it is theoretically related to the general concept of job crafting. Therefore, an already existing measure of job crafting was included in the survey to investigate the relationship of the concepts. I used multi-item measures for all variables following the recommendations of Robinson (2018).

Job Crafting was measured with the 15 item Job Crafting Questionnaire (JCQ) developed by Slemp and Vella-Brodrick (2013). The researchers built on the three factor (task, relational, cognitive crafting) job crafting conceptualization of Wrzesniewski and Dutton (2001). The scale includes three subscales reflecting the task, relational and cognitive dimensions with 5-5 items. The response format is a 6 point Likert type scale, from Hardly ever (1) to Very often (6).

Personal Initiative was measured with the 7-item self-report scale of Frese, Fay, Hilburger, Leng, and Tag (1997). This scale was also used by Tims et al. (2012) in their scale development process for the Job Crafting Scale (JCS). Participants respond on a 5-point scale with answers ranging from Totally disagree (1) to Totally agree (5).

OCB-helping dimension was measured with the 7-item helping dimension subscale of the 13 item OCB scale developed by Podsakoff et al. (1997) which includes the helping, civic virtue, and sportsmanship components of OCB. The researcher reported alpha coefficients of .95 for the helping components. Podsakoff et al. (1997) also showed the

measure predicted work group performance, thus lending some support for the scale's validity. Participants respond from Strongly disagree (1) to Strongly agree (5) Likert type scale.

Manipulativeness was measured with 5 items of the 6 item Manipulativeness scale developed by Simms, Goldberg, Roberts, Watson, Welte, and Rotterman (2011) in the frame of the CAT-Personality Disorder Scales. Simms et al. (2011) reported alpha coefficients of .88 for the Manipulativeness subscale. The response format is a 5 point Likert type scale from Totally disagree (1) to Totally agree (5). The measures of the questionnaire are included in *Appendix B*.

In addition, as noted above in stage two, a number of continuous and dichotomous control variables were included in the analysis such as age, gender, nationality, weekly working hours, job role (dummy coded) and job tenure.

4.5.4.3. Results: convergent construct validity

In order to assess the correlation coefficients between the PSJCM and the other theoretically related study variables, first a bivariate and then a partial correlation was conducted with the computed variables. Assessing the correlation coefficients in the bivariate correlation matrix (*Table 13*), a number of significant correlation coefficients were observed between the study variables and some of the control variables. With whom the participant interact with at the workplace and nationality had no significant relationship with any of the study variables.

Table 13: Bivariate correlation matrix of the control variables and study variables (N=500)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	1														
2. Gender	.04	1													
3. Nationality	.04	-.10*	1												
4. Working hours	.12*	-.11*	-.05	1											
5. Tenure	.49**	-.03	.09	.18**	1										
6. Job role: professional	-.04	.01	.12*	.14**	.04	1									
7. Job role: customer service	-.08	.12*	-.07	-.13*	-.06	-.57**	1								
8. Job role: skilled/elementary	.11*	-.09	-.06	-.01	-.03	-.45**	-.22**	1							
9. TPSJC	-.11*	.09	.01	.00	.02	.01	.00	-.03	1						
10. RPSJC	-.11*	.12*	.00	-.01	.01	-.04	.00	.00	.59**	1					
11. CPSJC	-.12*	.08	.03	-.02	-.04	-.07	.03	.00	.66**	.63**	1				
12. JCQ	-.04	.09*	-.02	.04	.05	.01	.03	.10	.56**	.55**	.66**	1			
13. OCB helping	.10*	.18**	-.01	-.04	.07	.02	.01	.05	.44**	.48**	.32**	.51**	1		
14. Personal initiative	.04	.08	.01	.10	.07	-.05	.00	.09	.39**	.35**	.42**	.53**	.49**	1	
15. Manipulativeness	-.20**	-.18**	.03	-.10	-.07	.01	.00	-.07	-.01	-.02	-.02	-.12*	-.27**	-.31**	1

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

There was a significant negative correlation between *age* and all three dimensions of the PSJCM ($r = -.11, p < .05$; $r = -.11, p < .05$; $r = -.12, p < .01$ respectively), and manipulateness ($r = -.19, p < .01$), and a significant positive correlation with OCB helping ($r = .10, p < .05$). *Gender* had a significant positive correlation with the relational dimension of the PSJCM ($r = .12, p < .05$), the Job Crafting Questionnaire ($r = .09, p < .05$), OCB-helping ($r = .18, p < .01$), and a significant negative correlation with manipulateness ($r = -.18, p < .01$). None of the job roles, job tenure, working hours and nationality had a significant relationship with any of the study variables. Therefore, I decided to conduct a partial correlation controlling for *age and gender*. In the partial correlation I included the three subscales of the Job Crafting Questionnaire instead of the aggregated measure. The partial correlation matrix is presented in Table 14, including the mean, standard deviation and Cronbach's alpha values of the study variables.

Table 14: Partial correlation matrix with mean, standard deviation, and Cronbach's alpha values of the study variables (N=500)

	Mean	SD	α	1	2	3	4	5	6	7	8	9
1. TPSJC	2.99	.93	.86	1								
2. RPSJC	3.00	.90	.79	.58	1							
3. CPSJC	2.93	1.04	.90	.66	.62	1						
4. Task JCQ	3.28	.75	.82	.57	.40	.52	1					
5. Relational JCQ	3.14	.89	.83	.44	.56	.50	.48	1				
6. Cognitive JCQ	3.18	.98	.92	.41	.39	.61	.51	.57	1			
7. Personal Initiat.	3.91	.65	.88	.38	.35	.43	.48	.42	.42	1		
8. OCB helping	3.92	.66	.87	.40	.45	.33	.43	.50	.35	.49	1	
9. Manipulativen.	1.57	.77	.94	-.06	-.02	-.03	-.11	-.09	-.09	-.30	-.23	1

All three dimensions of the PSJCM displayed a positive significant correlation with each other and theoretically related other study variables. In addition to identifying significant effects, I also considered the effect size (Cohen, 1992) in order to evaluate the strength of the relationships. Cohen (1988, pp.79-81) suggests the following guidelines in determining effect size: small ($r = .10$ to $.29$), medium ($r = .30$ to $.49$) and large ($r = .50$ to 1.0).

TPSJC displayed a large, positive, and significant relationship with the task dimension of the Job Crafting Questionnaire ($r = .55, p < .001$), and a medium, positive and significant correlation with the relational ($r = .44, p < .001$) and cognitive subscale ($r = .40, p < .001$) of JCQ, personal initiative ($r = .39, p < .001$) and OCB helping ($r = .40, p < .001$). RPSJC showed a large, positive and significant relationship with the relational dimension of the JCQ ($r = .56, p < .001$), and a medium, positive and significant relationship with the task ($r = .40, p < .001$) and cognitive subscale of JCQ ($r = .39, p < .001$), OCB helping ($r = .45, p < .001$) and personal initiative ($r = .35, p < .001$). CPSJC displayed the strongest significant positive relationship with the cognitive dimension of JCQ ($r = .61, p < .001$), and then respectively the task ($r = .52, p < .001$), and relational

dimension of JCQ ($r = .50, p < .001$), personal initiative ($r = .43, p < .001$) and OCB helping ($r = .33, p < .001$). All three dimensions of the PSJCM displayed weak and negative relationships with the theoretically unrelated construct of manipulateness: TPSJC ($r = -.08$), RPSJC ($r = -.02$), and CPSJC ($r = -.03$).

The reliability of each scale was assessed by calculating the Cronbach's alpha coefficients, displayed in *Table 14*. All scales had acceptable Cronbach's alpha scores above the .70 cut off point. The overall PSJCM returned a Cronbach's alpha value of .92.

In the next step, convergent construct validity was further tested by calculating the composite reliability (CR) and average variance extracted (AVE) scores of the subscales of the PSJCM, and the subscales of the other two job crafting measures. The AVE and CR scores were calculated using the factor loadings (standardized regression weights) generated by AMOS, using an excel calculation sheet with the relevant formula. The excel sheet was downloaded from a website containing resources and material for quantitative data analysis (Gaskin, 2016). Ideally, the AVE scores should be .50 or above, and the CR scores should be .70 and above in order to establish that the subscales are separate constructs (Anderson & Gerbing, 1988). The AVE and CR scores are presented in *Table 15*.

Table 15: AVE and CR scores of the subscales of the PSJCM, the JCQ, and OCB (N=500)

	AVE	CR
TPSJC	.62	.89
RPSJC	.52	.84
CPSJC	.72	.93
JCQ-Task crafting	.46	.88
JCQ-Relational crafting	.47	.88
JCQ-Cognitive crafting	.69	.95
OCB helping	.51	.94

All three subscales of the PSJCM have a CR score above .70: task dimension .89, relational dimension .84, and cognitive dimension .93. Moreover, all three subscales have an AVE score above .50: task dimension .62, relational dimension .52, and cognitive dimension .72. Based on the results of the correlation analyses and the AVE and CR values of the three subscales of the PSJCM, there is a strong evidence for the presence of convergent construct validity.

4.5.4.4. Results: discriminant construct validity

To test for discriminant construct validity, I conducted a series of CFAs using the statistical package AMOS (Arbuckle, 2010) to test if the subscales of PSJCM are different from other theoretically related study variables, regardless of the positive correlations established in the previous section. In the first step, I performed two CFAs in which a model with six factors (three PSJCM subscales, three JCQ subscales) was compared with a three factor model in which the three subscales of JCQ loaded on the three dimensions of the PSJCM. The task dimension of JCQ loaded on the task dimension of PSJCM, the relational dimension of the JCQ loaded on the relational dimension of PSJCM, and the cognitive dimension of the JCQ loaded on the cognitive dimension of the PSJCM. This was considered logical because these dimensions showed the highest correlations each other ($r=.567$, $r=.555$, $r=.606$, respectively). The model fit indices of the six factor and the three factor models are presented in *Table 16*.

Table 16: The model fit indices of the six factor and the three factor models with the subscales of the PSJCM and the JCQ

	χ^2	<i>df</i>	χ^2/df	RMSEA	NFI	CFI	TLI	IFI	GFI
Six factor model	766.28	308	2.49	.06	.91	.94	.93	.94	.90
Three factor model	2062.03	320	6.44	.10	.75	.78	.76	.78	.66

After observing the model fit indices for both models, it can be concluded that the six factor model is a better fit to the data than the three factor model. A chi-squared difference test returned a significant result with a χ^2 difference of 1295.75 and a degrees of freedom difference of 12 ($df = 12$; > 21.03 ; $p < .05$ / $df = 12$; > 26.22 ; $p < .01$ / $df = 12$; > 32.91 ; $p < .001$). These results provide support for the conceptual difference between prosocial job crafting, and job crafting theorized based on the framework of Wrzesniewski and Dutton (2001).

In the second step, a similar process was repeated comparing a four factor model (three dimensions of the PSJCM, OCB helping dimension) with a three factor model was compared. In the three factor model the helping dimension of OCB loaded on the relational dimension of the PSJCM because these two variables had the strongest relationship ($r = .45$). A chi-squared difference test returned a significant result with a χ^2 difference of 366.57 and a degrees of freedom difference of 3 ($df = 3$; > 7.82 ; $p < .05$ / $df = 3$; > 11.35 ; $p < .01$ / $df = 3$; > 16.27 ; $p < .001$). The results are presented in *Table 17*.

Table 17: The model fit indices of the four factor and the three factor models with the subscales of the PSJCM and the helping dimension of OCB

	χ^2	df	χ^2/df	RMSEA	NFI	CFI	TLI	IFI	GFI
Four factor model	451.86	145	3.12	.07	.91	.94	.93	.94	.91
Three factor model	818.43	148	5.53	.10	.84	.87	.85	.87	.83

In addition, the discriminant construct validity of the PSJCM was examined by comparing the squared correlation value of two relevant constructs with the AVE values of constructs. If the AVE value is higher than the squared correlation (Fornell & Larcker, 1981) for both of the constructs, there is supporting evidence of the presence of

discriminant construct validity (Cousins & Menguc, 2006). In the case of this study, all squared correlation values are lower than the AVE values, consequently providing support for the discriminant construct validity of the three dimensions of the PSJCM. The results of this analysis are presented in *Table 18*.

Table 18: The correlation coefficients, squared correlation, and AVE values of the test variables

	Correlation coefficient	Squared correlation	AVE values
TPSJC-JCQ task	.57	.32	.62/.46
RPSJC-JCQ relational	.56	.31	.47/.47
CPSJC-JCQ cognitive	.61	.37	.72/.69
RPSJC-OCB helping	.45	.20	.52/.51

Based on the above described results, I determined that all three factors of the PSJCM satisfied the criteria for both convergent construct validity and discriminant construct validity, hence *Objective 2* was met and satisfied.

4.6. Empirical Study 1b: Establishing the criterion validity of the PSJCM

4.6.1. Study overview

The aim of this study was to examine the criterion validity of the PSJCM. Criterion validity will be achieved when the scale relates to an external criterion that seems to be a result of PSJC (Cronbach & Meehl, 1955; Tims et al., 2012; Robinson, 2018). According to Robinson (2018, p. 745.) “the criterion data against which scale scores are validated can either be collected at the same time the scales are completed, to establish concurrent criterion validity, or at a future date, to establish predictive criterion validity”.

Similarly to the scale validation study of the Job Crafting Scale (Tims, Bakker, & Derks, 2012), I included self-report work engagement as the external criteria. Studies on job crafting investigated the relationship between job crafting behaviours and engagement (e.g., Bakker et al., 2012; Tims et al., 2013), and found that work engagement to be an outcome of job crafting. Nielsen and Abildgaard (2012) investigated the association in a longitudinal design, and found a positive relationship between T1 job crafting and T2 work engagement and job satisfaction. Individuals who mobilize more social job resources, such as building positive work relationships and giving and getting social support, will be more likely to feel engaged because their job allows them to use their strengths, skills and abilities (Dutton et al., 2010). Therefore, it is expected that prosocial job crafting is positively related to work engagement, thus Objective 3 is:

***Objective 3:** The three subscales of the prosocial job crafting measure will demonstrate predictive validity by significantly predicting work engagement.*

It is important to note, however, that it would have been more beneficial to collect independent objective data as opposed to self-report data for the external criterion, following recommendations for best practice (Cook, 2009; Robinson, 2018). To address the limitation resulting in the lack of objective data for this stage, the study adopted a time-lagged design with the outcome variable measured at two time points (T1 and T2) with a 3 month difference, testing for concurrent criterion (T1) and predictive criterion validity (T2). Concurrent criterion validity refers to the scale strongly relating to the external criteria measured at the same time, while predictive criterion validity refers to the scale strongly relating to the external criteria measured at a future time (Robinson, 2018). Three months was the chosen time interval, to match the time interval in the introduction and instruction section of the PSJCM:

*Below you can find statements of particular behaviours that are about **the nature of your work tasks and your interaction with others at work**. In the statements ‘others’ refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment.*

Please read each of the statements carefully and indicate that during the last 3 months to what extent have you voluntarily...

Three months is considered brief enough to be able to recall one’s actions and behaviours, but long enough for a variety of opportunities to occur where one can voluntarily engage in PSJC behaviours. The aim of the longitudinal design was to examine how the underlying dynamics of prosocial job crafting behaviours influence work engagement over time. The sample consisted of librarians working in academic libraries in the United Kingdom.

4.6.2. Questionnaire administration and data screening

The participants for the two time points were matched with a unique 6 digit code that the respondents created at the start of the T1 survey. The code consisted of the first two letters of their mother's first name, first two letters of their hometown, and the day of the month they were born. The sample consisted of 243 participants at T1 and 122 participants at T2. The questionnaire was conducted online and it was designed using the Qualtrics questionnaire software (similarly to the questionnaire used in Study 1a). The questionnaire link with an introductory message and questionnaire brief was distributed with the help of the directors or HR managers of each of the seven university libraries. The participants were provided information on the voluntary nature of the questionnaire, anonymity, confidentiality and the use of the data. Based on the recommendations of Hair, Ringle, and Sarstedt (2013), first the data was screened based on individual cases (rows) and cases with more than 10% missing data were considered for deletion. Three participants had more than 40% missing data, therefore these participants were removed from further analysis. In the next step, the data was screened column by column to determine the extent of missing data. I conducted an MCAR (Missing Completely At Random) test for the T1 data using the expectation maximization (EM) algorithm in IBM SPSS 23, and found that none of the variables had more than 4% missing data, and all data was missing at random (Little & Schenker, 1995). This percentage is below the 15% threshold recommended by Hair et al. (2013), hence it was concluded that missing data is not a threat. In the next stage the normality of the data was examined by conducting a test of Skewness and Kurtosis. All study variables (T1 and T2) had an acceptable value of Skewness and Kurtosis within the ± 3 limit (Field, 2013). The email distributed to the participants can be found in *Appendix C*, the Time 1 questionnaire in *Appendix D*, and the Time 2 questionnaire in *Appendix E*.

4.6.3. Demographics

The sample of Study 1b was collected from employees of seven university libraries in the United Kingdom. The Time 1 sample of 243 librarians did not display an equal ratio of genders as the majority of the participants were female with 71.6% (SD = .43). The participants' age ranged from 21 to 70, with the mean age of 44.24 (SD = 11.24). The job tenure of the respondents ranged from 3 month to 30.75 years, with the average job tenure of 6.12 years. As regards to position, 15% (.39) of the participants worked in a managerial role (manager, supervisor, team leader). The participants displayed a nearly equal ratios as regards to the library they are working in: library 1 (15.6%), library 2 (15.6%), library 3 (11.9%), library 4 (15.6%), library 5 (15.2%), library 6 (11.5%), library 7 (14.4%), with a Standard deviation of 2.018.

The T2 data of 122 participants also displayed an unequal ratio of genders with 81% of the participants being female, and 19% male (SD = .39). The mean age of the respondents is 43 (SD = 11), and the mean tenure is 5.66 years (SD = 76). The participants displayed similar ratios to the T1 sample as regards to the library they were working in: library 1 (17.1%), library 2 (16.3%), library 3 (11.4%), library 4 (14.6%), library 5 (13%), library 6 (9.8%), library 7 (17.9%). As regards to the comparison of the T1 and T2 participants, the demographic components are similar. The lower response rate for the Time 2 data collection could be due to less number of reminder emails that the directors and HR managers sent to the employees.

4.6.4. Measures used

Demographic variables age (in years), gender (1 = male, 2 = female), job tenure (in months), and job position (1 = managerial role, 2 = non-managerial) were measured with a single item measures. The three dimensions of PSJC behaviours were measured with

the prosocial Job Crafting Measure (PSJCM) developed in the frame of Study 1a. The scale includes 12 items, each of the three dimensions (task, relational, cognitive) measured with 4 items. The participants indicated their responses on a 1-5 Likert type response format from Not at all (1) to A great deal (5). The mean value for this sample was 3.20 for TPSJC (SD = .78), 2.78 for RPSJC (SD = .81) and 2.69 for CPSJC (SD = .93).

Work engagement was assessed with the nine-item version of the Utrecht Work Engagement Scale (UWES) validated by Schaufeli et al. (2006) based on the 17-item UWES survey developed by by Schaufeli and Bakker (2003). The scale includes three items for each engagement dimension: vigor (e.g. ‘At my work, I feel bursting with energy’), dedication (e.g. ‘My job inspires me’), and absorption (e.g. ‘I get carried away when I am working’). Items are scored on a scale ranging from Never (1) to Always (7). The nine-item scale displayed good internal consistency values (between .85 and .92, median = .92) across ten different countries. At T1 the mean value for this sample was 4.56, with a standard deviation of .90, while at T2 the mean value was 4.69 (SD = .82).

4.6.5. Exploratory Factor Analysis

In this step exploratory factor analysis with Principal Axis Factoring and oblique rotation was conducted in SPSS 24. The aim was to establish the underlying factor structure of the PSJCM and engagement (T1 and T2) with the sample of study 2 (Tabachnick & Fidell, 2013). To assess the data’s suitability for factor analysis, a Bartlett’s test of sphericity and Keiser-Meyer-Olkin (KMO) test were conducted. The Bartlett’s Test of Sphericity (BTS) yielded a significant value for all tests ($p < .001$) hence providing support that my study sample is from populations with equal variances. The value of the KMO tests exceeded the minimum value of .6, providing further support for the sample’s suitability for analysis (Field, 2013). The EFA result of PSJCM is displayed in *Table 19*. The 12 item

scale returned a three factor solution, cumulatively explaining 66.1% of the variance. The current three factor structure with a different sample further confirms the validity of PSJCM.

Table 19: EFA results for PSJCM using the sample of Study 1b

TPSCJ1	.80	.06	.13
TPSJC2	.82	.07	.04
TPSJC3	.73	.06	.05
TPSJC4	.74	.05	.12
RPSCJ1	.19	.41	.10
RPSJC2	.03	.49	.18
RPSJC3	.02	.86	.01
RPSJC4	.05	.82	.08
CPSCJ1	.18	.01	.77
CPSJC2	.01	.11	.92
CPSJC3	.02	.08	.89
CPSJC4	.04	.13	.80

The EFA result of T1 Engagement is displayed in *Table 20*. The 9-item scale returned a one-factor solution, explaining 60.53% of the variance.

Table 20: The EFA result of T1 engagement

	Factor 1
ENG1	.80
ENG2	.73
ENG3	.87
ENG4	.88
ENG5	.80
ENG6	.65
ENG7	.76
ENG8	.78
ENG9	.69

Similarly, the EFA result of T2 engagement returned a one-factor solution, explaining 60.02% of the variance (*Table 21*).

Table 21: The EFA result of T2 engagement

	Factor 1
ENG1	.66
ENG2	.68
ENG3	.87
ENG4	.88
ENG5	.79
ENG6	.67
ENG7	.82
ENG8	.83
ENG9	.73

4.6.6. Reliabilities

The reliabilities for each of the three prosocial job crafting subscales, and T1 and T2 engagement were assessed (*Table 22*). All three subscales of PSJCM yielded good internal consistency, with Cronbach's α values above the recommended minimum value of .7 (DeVellis, 2016): task subscale .79, relational subscale .73, and cognitive subscale .89, and overall PSJCM .86. Time 1 and Time 2 (T1 and T2) engagement displayed excellent Cronbach's α values of .92.

Table 22: Cronbach's α values of the study variables (Study 1b)

	α
TPSJC	.79
RPSJC	.73
CPSJC	.89
Overall PSJCM	.86
Engagement T1	.92
Engagement T2	.92

4.6.7. Establishing criterion validity

The aim of stage 5 is to examine the concurrent and predictive criterion validity of the PSJCM. Criterion validity is achieved if PSJCM relates to an external criterion that seems to be a result of prosocial job crafting (Cronbach & Meehl, 1955; Cook, 2009). Following

the practice of existing scale development studies on job crafting, self-report work engagement was included as the external criteria (Tims et al, 2012; Nielsen & Abildgaard, 2012; Slemp & Vella-Brodrick, 2013), measured at two time points with a 3-month interval in between. In the first step, a bivariate correlation was conducted to determine the effect sizes between the three PSJC dimensions and the outcome variable measured at two time points, namely engagement. Observing the effect sizes provide indication for the presence of concurrent and predictive criterion validity. Furthermore, it was established through the bivariate correlations if there is a need to control for one or more of the demographic variables (age, gender, tenure, position) in the regression analysis. The bivariate correlations are presented in *Table 23*. Based on Cohen's (1992) guidance about effect sizes, correlations exceeding .30 would reflect reasonable criterion validity, and correlations above .50 being excellent.

Table 23: Bivariate correlations for the study variables (Study 1b)

	1	2	3	4	5	6	7	8	9
1. Age	1								
2. Gender	.03	1							
3. Position	-.15*	.03	1						
4. Tenure	.46**	.15*	.02	1					
5. TPSJC	-.12	.06	-.19**	-.10	1				
6. RPSJC	-.06	.13	-.07	-.09	.47**	1			
7. CPSJC	-.08	.09	-.02	-.14*	.42**	.42**	1		
8. Engagement T1	-.05	.09	-.15*	-.13	.38**	.21**	.45**	1	
9. Engagement T2	-.02	.16	-.12	-.04	.35**	.18*	.30**	.81**	1

*Correlation is significant at the .05 level (2-tailed).

**Correlation is significant at the .01 level (2-tailed).

Based on the results of the bivariate correlations, I controlled for position and gender. Position displayed a significant correlation with T1 engagement ($r = -.15, p \leq .05$), and a non-significant but relatively increased correlation coefficient with T2 Engagement ($r = -.12$). Similarly, gender displayed slightly higher correlation coefficients with T1 ($r = .09$)

and T2 engagement ($r = .16$). The results of the preliminary analyses ensured that the assumptions of normality, linearity, multicollinearity and homoscedasticity were not violated. All three dimensions of PSJC display significant positive correlations with engagement measured at the same time and 3 months later, hence indicating that there is evidence for both concurrent and predictive criterion validity. The largest correlation was displayed between CPSJC and T1 engagement ($r = .45, p \leq .001$), and between TPSJC and T2 Engagement ($r = .38, p \leq .001$). RPSJC displayed the lowest correlation values with both T1 ($r = .21, p \leq .05$) and T2 Work Engagement ($r = .18, p \leq .05$). Based on these results of the bivariate correlation, I established that TPSJC displays reasonable to good levels of both concurrent ($r = .38$) and predictive criterion validity ($r = .35$). Similarly, CPSJC displayed very good concurrent criterion validity ($r = .45$) and reasonable predictive validity ($r = .30$). Unfortunately, RPSJC did not reach the recommended minimum effect size ($r = .30$) for neither concurrent ($r = .21$) nor predictive criterion validity ($r = .18$).

In the next step, to get a more detailed understanding of and further confirm the results of the bivariate correlation, a hierarchical multiple regression was performed to assess the ability of task, relational and cognitive prosocial job crafting to predict the levels of T1 engagement (concurrent criterion validity) and T2 engagement (predictive criterion validity) after controlling for the influence of gender and position.

Position and gender explained 2.9% of the variance in T1 work engagement. After entering TPSJC, RPSJC, and CPSJC at step 2, the overall model explained 25.6% of the variance in T1 engagement $F(5, 20) = 13.57, p \leq .001$. TPSJC, RPSJC, and CPSJC explained an additional 2.73% of the variance in T1 engagement after controlling for position and gender, R^2 change = .24, F change (3, 20) = 20.04, $p \leq .001$.

The highest beta values were recorded by CPSJC ($beta = .38, p < .001$). TPSJC is a significant predictor as well ($beta = .22, p < .05$), however RPSJC displayed a non-significant relationship with T1 engagement ($beta = .07, p > .05$). The results of the regression are presented in *Table 24*.

Table 24: Cumulative R², R² change and standardised beta coefficients at each step, testing concurrent criterion validity

Step	Variables entered	Model1	Model2
1	Position	-.16*	-.13
	Gender	.08	.06
2	TPSJC		.22**
	RPSJC		.07
	CPSJC		.38**
<i>R</i> ²		.03	.26
ΔR^2		.03	.24

Outcome variable: work engagement T1 *significant at $<.05$, **significant at $<.001$

A second hierarchical multiple regression was performed to assess the ability of TPSJC, RPSJC, and CPSJC to predict the levels of T2 engagement. Position and gender explained 3.7% of the variance in T2 work engagement. After entering TPSJC, RPSJC, and CPSJC at step 2, the overall model explained 19.4% of the variance in T2 Engagement $F(5, 11) = 5.30, p < .001$. TPSJC, RPSJC, and CPSJC explained an additional 15.8% of the variance in T2 engagement after controlling for position and gender, R^2 change = .24, F change (3, 11) = 7.15, $p < .001$.

The highest beta values is recorded by TPSJC ($beta = .27, p < .05$). TPSJC is a significant predictor as well ($beta = .23, p < .05$), however, RPSJC displayed a non-significant relationship with T2 engagement ($beta = .04, p > .05$). The results of the regression are presented in *Table 25*.

Table 25: Cumulative R^2 , R^2 change and standardised beta coefficients at each step, testing predictive criterion validity

Step	Variables entered	Model1	Model2
1	Position	-.11	-.07
	Gender	.15	.12
2	TPSJC		.27*
	RPSJC		.04
	CPSJC		.23*
R^2		.04	.19
ΔR^2		.04	.16

Outcome variable: work engagement T2 *significant at $<.05$, **significant at $<.001$

The results of the bivariate correlation and the linear regression analyses provide evidence for the presence of concurrent and predictive criterion validity, as there is a positive significant relationship between T1 and T2 work engagement and all three dimensions of the PSJCM (TPSJC, RPSJC, and CPSJC). In addition, TPSJC and CPSJC positively and significantly predicted both T1 and T2 Work Engagement. Thus, *Objective 3* was partially met and satisfied as only two out of the three subscales were able to demonstrate evidence for criterion validity.

4.7. Examples of prosocial job crafting behaviours from open-ended questions

As noted in section 4.2, in addition to the fixed response format items, the questionnaire distributed to both study samples (Studies 1a and 1b) also included a question with an open text-box answer format. The open ended question was included following the PSJCM, asking the participants to describe examples of their prosocial job crafting behaviours: “Please provide some examples of any of the behaviours listed above”.

The textual answers were carefully read through and colour coded (Lacey & Luff, 2001) in order to identify examples for TPSJC (coded blue), RPSJC (coded yellow), and CPSJC (coded green). Answers that were not relevant or out of scope for the research were coded as red.

4.7.1. Examples from Study 1a

Approximately half of the participants provided examples. Only answers were considered that provided information regarding the PSJC behaviours of the participants, and brief answers such as ‘yes’, or ‘not sure’, and answers that did not capture PSJC behaviours were eliminated from the analyses. Most participants provided examples for TPSJC, followed by RPSJC and CPSJC. Below I provide some representative answers from study 1a.

4.7.1.1. Examples for TPSJC

“I chose to take on the harder tasks because I'm faster at them so that I can ease the work load and then help out with others' tasks when I'm finished.”

“I voluntarily worked on a project that had just come in so other trades could get their work done in a timely manner. “

“I always make sure that my station and files are organized so that if anyone needs access to them, they can find what they are looking for easily. I also learned some basic programming to improve our current system, and I shared it with my colleagues.”

“Read up on a problem to help”

“I cleaned up quite a few times because a girl on my shift was pregnant and pretty far along. She did the lighter tasks and I did the mopping, taking out trash, etcetera. I also trained a new employee, teaching her about the fryer and the register, giving her shortcuts that were exclusive to my experience.”

“As a quality analyst, there was one day I had to monitor an agent's customer service attitude and during my morning shift he got bad results. My manager told that if he didn't improve he was going to penalize him so, I stayed during the PM shift doing extra hours evaluating him and providing feedback until he improved.”

“I put aside personal projects that would make my job easier and make me look like a better employee to management in order to help out co-workers with their projects.”

“I did both my full load of work as well as a sick co-workers for 2 weeks so they didn't get in trouble”

“Did extra repairs so that my co-worker could be home earlier. Taught myself how to do new repair so that I could help my co-worker.”

“I am constantly learning new things so I can take on new tasks to take some of the weight off my co-workers shoulders. “

“I took on an additional workload to help a colleague that was due to go on vacation with his family. Because he seemed to be overworked and stressed, I volunteered to help him with his tasks so that he could complete his projects before leaving for his trip. Also, when this particular colleague returned from his vacation, I helped him to get up to speed on the department's new projects as well as made sure that he was kept updated with what everyone else was doing. Also, this past week, a secretary needed to take time off to handle a family concern but had forgotten to assign work to one of the interns that was working with us. I offered to allow the intern to shadow me at work to keep him busy and also introduce him to some more interesting tasks we handle on a day-to-day basis.”

4.7.1.2. Examples for RPSJC

“I often take newer employees under my wing. Giving them insight on how to improve their production (my company is production-based so this improves their hourly wage and gives them access to more hours). “

“I mentored a new co-worker who started last month. Although she was receiving training, I voluntarily offered advice on how to improve task expediency. I also treated her to lunch a few times and communicated with her after work in order to make her feel welcome. I felt that these behaviors would benefit her.”

“I often voluntarily listen to my co-workers problems when they talk about their home life, and I offer advice.”

“Two weeks ago two co-workers were having problems among themselves because of the procedures that they were using to attack a certain task. The problem was growing since about two months but it came to a tense situation two weeks ago. I voluntarily mediated the situation. I tried to have them talk in a calm manner and get to a middle ground solution. It wasn't easy and I don't know if the results are going to last, but I tried. “

“My one co-worker has issues with her spouse not doing much to help out around the house. I offer to listen to her and comfort her and talk with her about these issues so that she can get it off her chest and feel better.”

“There was an occurrence where a co-worker was having troubles with his dating life, and I offered supportive advice to him which I believe helped him out.”

“One of my colleagues is in conflict with the supervisor at my work place. I have talked to this colleague on many occasions offering help to keep things in the proper perspective as to not affect the job she is doing on a daily basis, and risk her future at the company.”

4.7.1.3. Examples for CPSJC:

“Recently I was stuck writing a document for my research. I had to stop myself wanted to throw the keyboard at the wall so I thought to myself what is the purpose of my research?. Whenever I get frustrated with something that I am working on, I always try to look at the bigger picture, and think about how it benefits others.”

“I reminded myself of positive difference my work can make by realizing that my work directly influences people getting paid their correct pay on time. I often tell staff that I have an open door that if they need to talk, they can come see me.”

“I changed my view about my job when I have seen how my work can positively affect others as far as the instructor, maintenance crew, and all other staff.”

“I think that reminding myself about the positive differences my work can make to others by making stressful events like planning a vacation simpler, and informing them about various plans and things like bundles would make things much better for them. “

“I always think how my work can positively affect others.”

4.7.2. Examples from Study 1b

Approximately 40% of the participants in Study 1b provided examples. Only answers were considered that provided information regarding the PSJC behaviours of the participants. Similarly to the examples discussed in the previous section (4.7.1), most

answers provided answers for TPSJC, followed by RPSJC and CPSJC. Below I provide some representative examples from the participants of Study 1b.

4.7.2.1. Examples for TPSJC

“I've volunteered to attend a workshop to learn about a module in our library system, although I will not work with it as much as the other attendees do, to be able to be a 'bridge' between the colleagues who do use this module and my colleagues who don't - to be able to explain how the library system works in general.”

“I try to manage my workload in a flexible way to help out the other members of my team. This can mean changing plans or rearranging tasks to help out others.”

“I voluntarily offered to stand in on a group interview to "make up the numbers" so the group interview could go ahead as planned.”

“I offered to teach classes to help out colleagues who didn't have time to do it themselves”

“I offered to work with colleagues to improve the process we have of providing digitized texts to Visually Impaired students. It felt good to make a difference”

“I volunteered to support an American colleague who moved over for project work, both at work and socially”

“I offer to spend time talking to my customers to understand their research requirements and help them find the best resources for their work, especially our electronic resources and our extensive library stores and rare books collections. I also help new students to feel comfortable in using the library by taking a personal interest in them, spending time teaching them how to find resources and listening to their concerns and observations about the library and university life in general”

“I've volunteered to do a daily shift on the online enquiry service Ask a Librarian which means I'm able to support colleagues working in busier libraries and am learning more about the University Library Service as a whole I've chosen to sit at the enquiry desk instead of the office so that customers see a friendly face when they enter the library and feel more willing to ask for help”

“A great example of providing positive impact was last week when I showed a part time

mature student just starting a degree course: a) Google Scholar and b) Ctrl+F function for searching for keywords in a pdf - these tiny things blew her mind, she was so pleased - you can never assume people know this stuff so I always make a point of sharing the knowledge, and it makes me happy to help people. I regularly offer to help mature students with VERY basic internet/MS Office functions, and don't mind doing so at all, I always tell them "nobody's born knowing this stuff" as they are always very apologetic and ashamed of not knowing”

“I often have to prioritize task in order to benefit others; particularly the customers (students). If a student has a question or request, I leave whatever desk job I was doing, and help them first. “

“I often take additional work task that will benefit others. For instance, I have just undertaken a first aid course in order to become a first aider, and be able to help everyone in the library.”

4.7.2.2. Examples for RPSJC

“Interact with a broad range of people daily from students to pensioners as part of the job. Many (esp older) patrons are friendly as they visit the library regularly. Recently a regular patron was confiding in me about family issues, she was upset and I responded appropriately and gave her time and space to get it off her chest.”

“Stopping my work task to approach students who look lost or confused even when I am not in customer support duty. I also regularly offer to support colleagues with personal problems.”

“I've offered a lot of informal advice to a new staff starter”

“I took up on me to informally mentor a new colleague and was very happy to find out she was recently promoted”

“I am naturally a problem solver and good listener so outside of my formal role I am happy to listen and try to help friends at work with problems both work and social related.”

“2 members of my team are unhappy with colleagues/work content and I have listened to their problems and offered advice on a way forward to improve the situation.”

4.7.2.3. Examples for CPSJC

“As a project manager it is my job to improve processes and circumstances for colleagues, I always think about the positive impact and changes this has on their daily work.”

“Recent work with the School of Music involved the release of some recorded performances to the world. The excitement of the academic colleague concerned was infectious and a great reminder that as a library we can offer facilities with unexpected positive impact. This academic then invited us to speak to his school research committee about our repository and how it can be used to share research outputs in a discipline where performance can be very important.”

4.8. Chapter summary

Chapter 4 presents the five stages of the development and validation process of the Prosocial Job Crafting Measure (PSJCM). The first four stages were conducted on the data from 500 participants, collected via Amazon Mechanical Turk. The chapter described the initial stage of item creation, and the exploratory investigation of focus groups and expert researcher involvement that supported the item generation process of 20 items. Following the description of the first phase, the chapter describes the process and results of an Exploratory Factor Analysis on Sample 1. As the outcome of the EFA, six items were deleted and the remaining 14 items displayed a clear three-factor structure, where each of the three prosocial job crafting dimensions represented a factor. The chapter progresses by outlining the third stage of the development process, and presenting the process and results of a Confirmatory Factor Analysis conducted on sample 2. The results of the CFA returned a good model fit by acceptable values displayed by multiple model fit indicators. Moreover, the invariance of PSJCM was tested across genders and samples (1 and 2), and the measure displayed similar factor loadings across both

categorizations. In the fourth phase of the validation process the construct validity (convergent and discriminant construct validity) testing process and results are outlined. Strong evidence was found for the presence of both convergent and discriminant construct validity, indicating that PSJCM is related to other theoretically similar measures, and distinct from measures of different concepts.

The fifth and final stage of the scale development process is establishing the criterion validity of PSJCM, and this last phase was conducted using sample 3. The T1 (243 participants) and T2 (122 participants) data used for this stage was collected from library employees of university libraries in the United Kingdom. Criterion validity can be investigated through testing whether theoretically relevant external criteria can be considered as the outcome of PSJC (Law et al., 2004). Bivariate correlation test and multiple regression analyses were conducted in order to examine whether the three dimensions of PSJC are able to predict work engagement.

Prior to conducting correlation and regression, the reliabilities and factor structures of the study variables were tested. All study variables displayed satisfactory internal consistencies with Cronbach Alpha values above .7. The Exploratory Factor Analysis returned a clear three factor structure for the PSJCM, further confirming the presence of three subscales within the measure, each representing one of the three PSJC dimensions. Moreover, work engagement returned a one factor structure with both T1 and T2 data.

The bivariate correlation analysis revealed that all three dimensions of the PSJCM are significantly and positively related to work engagement at both time points, and two out of the three PSJC dimensions (TPSJC, CPSJC) positively and significantly predicted both T1 and T2 work engagement. Thus, PSJCM demonstrated the presence of criterion

validity, and consequently satisfied the requirements of all stages the scale validation process.

The open ended responses in both questionnaires for Studies 1a and 1b offered further support for the three dimensions of PSJCM. The participants provided a number of examples for all three dimensions of PSJCM, with the majority of replies providing evidence for the TPSJC dimension.

CHAPTER 5: TESTING THE THEORETICAL MODEL OF PSJC (STUDY 2)

5.1. Chapter Overview

In Chapter 5, I outline a Structural Equation Modelling (SEM) approach, testing six causal models of PSJC. However, prior to SEM, I conducted a series of necessary analyses. First, I discuss the study sample, detailing the data screening process and the demographics of the participants. Next, I introduce the measures used, followed by the process and results of an EFA with all study variables. In the next stage I outline a CFA of the study variables. In the subsequent step of the chapter, I present the results of a bivariate correlation analysis, followed by the description of the process and results of a Common Method Bias analysis. In the final section of Chapter 5 I present the process and results of a Structural Equation Modelling analysis.

5.2. Sample and process

For the purposes of Study 2, I collected questionnaire responses from 275 Hungarian employees using the Qualtrics (Snow & Mann, 2013) survey software. At the first stage, I translated the questionnaire into Hungarian as I have a certificate for English to Hungarian and Hungarian to English translation from the Language Institute of the University of Debrecen (Hungary). Following this, a professor of the English Department at the University of Debrecen, and a bilingual (English-Hungarian) acquaintance were each asked to back-translate the Hungarian version of the questionnaire into English. The original English version and the back-translated versions of the questionnaire were very similar for both translators. Therefore, I could be confident that the Hungarian translation of the questionnaire captured the same content as the English version (Saunders et al., 2016). The 275 participants were all library employees, working in four large university libraries in Hungary, two of the libraries are in the capital and two are in other larger cities

in Hungary. The head supervisors of the libraries provided me access to the names and email addresses of their employees, and I contacted each of the employees via email, sending them an individual, personalised link to my survey, including a summary of my study and information on anonymity, confidentiality and informed consent. The individual links were generated using the appropriate function of the Qualtrics questionnaire software.

This was necessary as part of my study design, I intended to collect supervisor ratings of individual performance, and therefore I needed to match the employees to their survey responses. The employees were informed regarding the aim, topic and details of the study in the cover letter accompanying the questionnaire link, and were instructed to only complete the questionnaire if they are comfortable with the researcher contacting their supervisor for individual performance ratings. I also informed the participants, that the supervisors will only be presented with a list of names who completed the survey, but not with the individual questionnaire responses. In addition, I ensured the participants that after the questionnaire responses are matched with the supervisor ratings, all identifiable information will be deleted from the dataset. The library employees were sent altogether 3 emails: the initial email and two reminder emails with 2-2 weeks of difference. The email sent to the participants can be found in *Appendix F*, the information sheet in *Appendix G*. As a reward, the participants were offered prize draw for five 5000 HUF (approximately £20) shopping vouchers. The supervisors were contacted five weeks after the last reminder emails to provide the performance ratings of the employees who completed the questionnaire.

5.2.1 Data Screening

Before examining any relationships between variables, it is crucial to investigate whether missing data is extensive or occurring on a non-random basis (Hair et al., 2013). From

the sample of 275 participants, 13 participants were deleted due to missing data. In the first stage, the data was screened based on individual cases (rows) as according to Hair et al. (2013) cases with more than 10% missing data could be considered for deletion. Ten participants had more than 30% missing data, therefore I decided to delete these participants from further analysis. Next it was examined if any participants had to be deleted due to being outliers or unengaged responses. In this case, such deletion was unnecessary.

In the second stage, the data was screened on a variable basis (columns) to determine the extent and nature of missing data. I conducted an MCAR (Missing Completely At Random) test using the expectation maximization (EM) algorithm (IBM SPSS 24) following the recommendations of Little and Schenker (1995), and found that none of the variables had more than 4% missing data, and all data was missing at random. This percentage is considerably below the 15% rule of thumb recommended by Hair et al. (2013), thus it was concluded that missing data is not an issue. However, an additional three participants were deleted due to their job tenure. The three individuals have been working for less than 2 months at their institutions, therefore the supervisors were not able to provide appropriate ratings for their performance. Additionally, they were not able to accurately complete the PSJCM as the scale is investigating workplace behaviours for a 3-month time interval.

In the third stage the normality of the data was examined by conducting a Skewness and Kurtosis analysis. All study variables had an acceptable value of Skewness and Kurtosis below the ± 2 limit (Trochim & Donnelly, 2006), with the exception of Supervisor ratings with a slightly higher Kurtosis level of 2.9, which is still below a less strict cut-off point of ± 3 (Field, 2013).

5.2.2. Demographics

The sample of the remaining 262 participants had a slightly unequal gender distribution with 62.2% of the participants being female ($SD = .49$). The participants' age ranged from 20 to 68, with the mean age of 42.75 ($SD = 10.51$). All of the participants were of Hungarian nationality. The job tenure of the respondents ranged from 3 month to 38 years, with the average job tenure of 10.27 years ($SD = 111.08$). As regards to location, 52.3% of the participants worked in Budapest ($SD = .50$), with 23.3% in Library 1 and 29.4% in Library 2. Participants from the libraries in the other two cities were 27.9% (Library 3) and 19.5% (Library 4) of the participants.

5.3. Measures used

The variables included in Study 2 were: autonomy, prosocial motivation, PSJC, performance, supervisor ratings of performance, perceived impact on beneficiaries, and perceived contact with beneficiaries. All variables were measured with multiple items (Robinson, 2018). The English and Hungarian versions of the questionnaire used in Study 2 are included in *Appendix H* and *Appendix I*.

5.3.1. Predictor variable

Prosocial motivation was measured with a 4-item scale adapted from the self-regulation measures developed by Ryan and Connell (1989). The items are measured with a 7 point Likert-type scale, response categories ranged from Strongly disagree (1) to Strongly agree (7). The four items were introduced with the questions: "Why are you motivated to do your work?". The four-item measure was used by Adam Grant (2008a) and returned an internal consistency of .90.

5.3.2. Outcome variables

Performance was assessed with five items developed and tested by Williams and Anderson (1991), returning Cronbach's Alpha value of .91. The five items are clear, and short. An example item is "I adequately complete assigned duties." A 5-point scale was used with answers ranging from Strongly disagree (1) to Strongly agree (5).

Supervisor ratings of overall performance for individual employees were obtained using five-item scale developed by Ashford and Black (1996), also used in Grant et al. (2009), returning an internal consistency value of .85. The items are introduced with the statement, "Thinking about the overall performance of the person you are rating, please indicate how you would rate them relative to others in the same/similar jobs on a percentage basis." The items use a 9-point scale anchored at 1 = bottom 10% and 9 = top 10%, include "overall performance" "achievement of work goals" "ability to get along with others" "ability to get the task done on time", and "quality of performance". The English version of the information sheet and email sent to the supervisors are in *Appendix J* and *Appendix K*.

5.3.3. Mediating variables

PSJC was measured with the Prosocial Job Crafting Measure (PSJCM) developed and validated in chapter 4. The 12-item scale measures three dimensions of PSJC; task (TPSJC), relational (RPSJC), and cognitive (CPSJC).

5.3.4. Moderating variable

Prosocial job characteristics contact with beneficiaries and *prosocial job characteristics impact on beneficiaries* were each measured with three items of the prosocial job characteristics scale developed by Grant (2008b). The items are measured with a 7 point

Likert-type scale, response categories ranged from Strongly disagree (1) to Strongly agree (7).

5.3.5. Control variables

The participants were asked to provide demographic information on their *age, gender, and job tenure*. *Autonomy* was measured using a 3-item scale adapted from Bakker et al. (2003), also used in Tims et al. (2013) for control purposes. The items are measured with a 5 point Likert-type scale, response categories ranged from Never (1) to Always (5). The three item measure was chosen due to the small number and the clarity of the items.

5.3.6. Marker variable

In order to test for common method bias, a theoretically unrelated marker variable was included. The marker variable included 4-items, and asked the participants regarding their healthy habits at the workplace (e.g., consuming healthy snacks, activity level at work).

5.4. EFA

In the next step I conducted an Exploratory Factor Analysis with Principal Axis Factoring (PAF) factor extraction in order to establish the underlying factor solution of the study variables and to investigate whether there are any problematic (low loading or double loading) items, prior to moving onto CFA. PAF has the advantage of not only analysing correlations, but also covariances.

The chosen rotation method was Direct Oblimin because the factors in my study are theorized to be correlated based on the findings of Chapter 4. To assess the data's suitability for factor analysis a BTS and KMO tests were conducted. BTS returned significant result, confirming that the study sample is from populations with equal variances. The value of the KMO test exceeded the recommended threshold of .6 with a value of .87, thus satisfying this assumption for EFA. The number of factors to be

extracted was estimated freely following the recommendation of Anderson and Gerbing (1988). The model with nine study variables returned a nine-factor solution, cumulatively explaining 72.6 % of the variance (*Table 26*).

Table 26: The results of the initial EFA

	1	2	3	4	5	6	7	8	9
AUT1	.87	-.01	-.00	.06	.07	-.04	-.04	.02	-.01
AUT2	.90	.07	.01	-.05	.03	-.07	.02	.04	.01
AUT3	.77	.02	-.01	-.01	-.06	.11	.06	.02	-.00
TPSJC1	.02	.58	.01	.02	.11	-.00	.07	.03	.20
TPSJC2	.10	.61	.03	.16	-.10	.13	.04	.14	-.03
TPSJC3	-.07	.75	-.02	.04	.11	-.06	.09	.00	.07
TPSJC4	-.03	.63	.14	.08	.12	-.07	.07	.08	.15
RPSJC1	.03	.29	.50	.06	-.02	.32	-.18	-.01	.06
RPSJC2	-.14	.20	.57	.18	.07	.02	.08	.22	.01
RPSJC3	.04	.07	.85	-.08	.02	-.01	-.00	-.04	.06
RPSJC4	.06	-.22	.83	-.02	-.04	-.03	.08	-.00	-.06
CPSJC1	-.08	-.12	-.08	.81	-.00	.02	-.05	.06	-.04
CPSJC2	.02	-.01	-.05	.87	-.04	.10	-.01	.11	-.06
CPSJC3	.02	-.22	.01	.68	.11	.12	-.06	-.020	.08
CPSJC4	.09	.11	.23	.59	.08	-.15	.15	-.20	.14
PSMOT1	.06	-.11	-.06	-.07	.83	.15	-.02	-.03	-.05
PSMOT2	.00	-.09	-.06	-.02	.89	.06	.06	.03	-.15
PSMOT3	-.01	.09	.05	.15	.77	-.01	.00	-.03	.18
PSMOT4	.03	.00	.05	-.02	.87	-.00	-.01	.11	-.00
Impact 1	.07	.08	-.04	.10	.17	.74	.11	-.01	.08
Impact 2	.02	.04	.02	.03	.07	.88	.01	-.06	.01
Impact 3	-.06	-.05	.05	-.03	.06	.72	.19	.04	.02
Contact 1	-.08	-.01	.01	-.01	-.02	.11	.84	.01	.02
Contact 2	.04	-.06	.00	-.05	.03	.10	.88	-.03	.01
Contact 3	.12	-.09	.06	.01	.04	-.05	.88	-.04	-.05
Perf1	.04	-.03	.02	-.07	-.03	.06	-.08	.75	.05
Perf2	.04	-.01	.11	-.03	.09	-.02	.01	.82	.07
Perf3	.03	-.05	-.02	.04	-.00	-.06	.01	.85	.05
Perf4	.01	-.02	-.03	.06	.07	-.06	.03	.83	.04
Perf5	.04	.04	-.15	.17	-.07	.15	.30	.33	.17
Supervisor1	-.00	-.07	-.01	-.01	-.01	.07	.04	.09	.81
Supervisor2	.02	-.01	.01	-.00	-.01	.04	-.08	.08	.88
Supervisor3	.02	-.03	-.05	.02	-.00	-.00	.01	-.12	.91
Supervisor4	.01	-.01	.08	.02	-.02	-.02	-.03	.12	.79
Supervisor5	-.04	-.04	-.02	-.07	.00	.00	.03	.09	.87

5.5. CFA

Following the EFA, I proceeded to examine the nine study variables for their measurement properties in a CFA. Each of the 33 items had significant factor loadings, above the recommended minimum value of .5, with the majority of the factor loadings being above .7 (Fabrigar & Wegener, 2011). The nine-factor structure established in the EFA was a good fit to the measurement model. However, in order to further improve model fit, three additional items were deleted that had lower factor loadings and high error terms associated to them: the third item of the prosocial motivation scale (PSMOT3), the second item of the task prosocial job crafting scale (TPSJC2) and the fourth item of the cognitive prosocial job crafting scale (CPSJC4). The deletion of the three additional items resulted in an improved model fit based on multiple fit indices (Table 28).

Table 28: The model fit indices of the nine factor model with 33 and 30 items

	χ^2	<i>df</i>	χ^2/df	RMSEA	SRMR	CFI	TLI	IFI	PCLOSE
Model with 33 items	736.48	457	1.61	.05	.06	.95	.94	.95	.65
Model with 30 items	504.67	368	1.37	.04	.05	.97	.97	.97	.10

Based on Jaccard and Wan (1996), a range of fit indices from different categories were assessed in order to overcome the limitations of each index. Following the recommendations of Hu and Bentler (1999), the following thresholds for a good model fit were considered:

- Chi-square/df → a value below 3 indicates a good model fit
- RMSEA → a value below .05 indicates a good model fit
- SRMR → below .05 indicates an excellent and below .07 indicates a good model fit
- CFI → a value above .95 indicates a good model fit
- IFI → a value above .95 indicates a good model fit
- TLI → a value above .95 indicates a good model fit

In addition, the PCLOSE value is non-significant with a value of .996, indicating that the model is a close fitting model (Hu & Bentler, 1999). For this model, all of the incremental and the absolute fit indices returned values that indicate a good model fit.

In the next step, the discriminant construct validity of the nine study variables was examined by calculating the CR and AVE scores of the study variables. The AVE and CR scores were calculated using the factor loadings (standardized regression weights) generated by AMOS, using an excel calculation sheet with the relevant formula (Gaskin, 2016). Ideally, the AVE scores should be .50 or above, and the CR scores should be .70 and above in order to establish that the subscales are separate constructs (Anderson & Gerbing, 1988).

Furthermore, in order to investigate whether the variables reliably represented their underlying factors, each of their individual reliability was calculated. All nine constructs had Cronbach's Alpha reliabilities above the .70 threshold (Hair et al., 2013). The overall PSJCM returned a reliability value of .79. The AVE, CR and Cronbach's α scores are presented in *Table 29*.

Table 29: AVE, CR, and reliability values of the study variables (N=262)

	Mean	SD	CR	AVE	α
Autonomy	3.54	.79	.83	.62	.81
Prosocial Motivation	5.79	1.07	.90	.76	.87
Ps. Job Char. Impact	5.21	1.21	.86	.67	.86
Ps. Job Char. Contact	4.87	.87	.90	.74	.89
TPSJC	3.39	.97	.78	.54	.77
RPSJC	2.56	.86	.72	.48	.70
CPSJC	3.00	.87	.80	.57	.79
Performance	4.19	.52	.85	.65	.89
Supervisor Rating	7.89	1.02	.94	.76	.93

All ten study variables have a CR score above .70: autonomy .83, prosocial motivation .90, impact on beneficiaries .86, contact with beneficiaries .90, TPSJC .78, RPSJC .72, CPSJC .80, performance .85, supervisor ratings .94. Moreover, nine out of the ten study variables returned an AVE score above .50: autonomy .62, prosocial motivation .76, impact on beneficiaries .67, contact with beneficiaries .74, TPSJC .54, CPSJC .57, performance .65, and supervisor ratings .76. RPSJC displayed a value of .48, however this is a minor limitation as the value is just below the recommended cut-off point. Based on the AVE and CR values of the study variables, there is a strong evidence for the presence of convergent construct validity.

The presence of discriminant construct validity indicates that factors in the model are distinct from each other. Ideally, constructs should relate more strongly to their own factor than to another factor. To determine whether there are discriminant construct validity issues, Correlations between factors should not exceed .7, as an above .7 correlation coefficient would indicate a 50% or above shared variance ($0.7 * 0.7 = 49\%$) between the two constructs (Lucas et al., 1996). In order to investigate the presence of discriminant construct validity, I conducted a bivariate correlation in the next stage.

5.6. Bivariate correlations

A bivariate correlation was concluded in order to examine the presence of convergent and discriminant construct validity, and to determine which variables to include as control variables in the further stages of the analysis. The correlation coefficients are displayed in *Table 30*. None of the study variables are correlated on an above .7 level. The highest correlation between two factors (performance and supervisor ratings) is .59. Therefore the highest possible squared correlation value of two study variables is .35 (.59 x .59), and the lowest AVE value of the study variables is .48 (RPSJC). Therefore, if comparing the squared correlation values with the AVE values of the constructs, all the AVE values would be higher than the highest possible squared correlation value of .35. Therefore, I was able establish the presence of discriminant construct validity (Fornell & Larcker, 1981).

Continuous and dichotomous control variables were included in the analysis such as age, gender, location, and job tenure. Based on previous research on job crafting (Leana et al., 2009; Wrzesniewski & Dutton, 2001) and based on the approach of Tims et al., (2013), I also included the job characteristic autonomy as a control variable.

Location did not have a significant correlation with any of the study variables, therefore it was not included in further analysis. Age displayed a positive significant relationship with prosocial motivation ($r = .17, p < .01$), prosocial job characteristics contact ($r = .184, p < .01$), and a negative significant relationship with performance ($r = -.17, p < .01$).

Gender showed a positive significant relationship with RPSJC ($r = .19, p < .01$), and prosocial motivation ($r = .15, p < .05$), while tenure displays a significant negative relationship with performance ($r = -.19, p < .01$) and supervisor ratings ($r = -.13, p < .05$). Autonomy displayed a positive significant relationship with multiple study variables

(with TPSJC $r = .12$, $p < .05$, with prosocial motivation $r = .20$, $p < .01$, with prosocial job characteristics impact $r = .17$, $p < .01$, with prosocial job characteristics contact $r = .26$, $p < .01$, with performance $r = .18$, $p < .01$, and with supervisor ratings $r = .14$, $p < .05$), hence confirming the theoretical need to control for it in the further steps of the analysis (Tims et al., 2013).

Table 30: Results of the bivariate correlation of the Study 2 variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Location	1													
2. Age	-.15*	1												
3. Gender	-.07	.16**	1											
4. Tenure	.08	.55**	.01	1										
5. Autonomy	-.11	.13*	-.04	-.06	1									
6. TPSJC	.10	-.01	.05	-.06	.12*	1								
7. RPSJC	.01	.08	.19**	.04	.05	.30**	1							
8. CPSJC	.02	-.08	.03	-.11	.04	.46**	.23**	1						
9. Prosocial motivation	.03	.17**	.15*	.03	.20**	.37**	.18**	.28**	1					
10. Impact	.11	.08	.03	.10	.17**	.37**	.17**	.36**	.50**	1				
11. Contact	-.03	.18*	.04	.11	.26**	.30**	.18**	.23**	.31**	.49**	1			
12. Performance	.00	-.17**	.00	-.19**	.18**	.39**	.20**	.31**	.20**	.23**	.13*	1		
13. Supervisor ratings	.04	.10	-.01	-.13*	.14*	.52**	.26**	.36**	.16*	.26**	.22**	.59**	1	
14. Marker variable	.06	.04	.03	-.01	-.03	.08	-.07	.10	.07	-.03	-.03	-.02	.05	1

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

Based on the results of the bivariate correlations, age, gender, tenure and autonomy were included as control variables in the further stages on the analysis, with the exception of step 5.7 (Common method bias test). Additionally, based on the correlation findings, the relationships between the marker variable healthy lifestyle and the study variables were examined. Williams, Hartman, and Cavazotte (2010) recommend to choose a marker variable that is not expected to be theoretically related to the study variables in the model but it is also defined as “capturing or tapping into one or more of the sources of bias that can occur in the measurement context for given substantive variables being examined” (Williams et al., 2010 p. 31.) such as item ambiguity, the measurement context, transient mood states, social desirability, consistency motif, implicit theories, demand effects, scale

anchors and formats, leniency bias, and demand characteristics (Podsakoff et al., 2003).

In the case of my study, the most relevant causes for common method bias are:

- Social desirability: the tendency of some participants to respond to items more as a result of their social acceptability than their true feelings.
- Consistency motif: the propensity for respondents to try to maintain consistency in their responses to questions.
- Common scale anchors: the repeated use of the common scale anchor points.
- Common scale formats: refers to the artefactual covariation produced by the use of the same scale formats.

Therefore, I created items for a marker variables to tap into some of these biases. The items were developed based on the following factors: theoretically unrelated (healthy lifestyle), relates to work context, and taps into both social desirability and consistency.

Healthy lifestyle:

1. I always eat healthy meals during work days.
2. I always exercise before or after work.
3. I never smoke cigarettes on workdays
4. I never eat unhealthy snacks between meals.

The participants will be asked to indicate their answer on a 5-point Likert scale (Strongly disagree-Strongly agree). As the variable healthy lifestyle is theoretically unrelated from the study variables, non-significant correlations were expected between the marker and the study variables. Confirming its function, the marker variable displayed low correlation coefficients and non-significant relationships with all of the study variables (Williams et al., 2010). Therefore, healthy lifestyle was used as a marker variable in the next stage on the analysis: the Zero-Constrained Common Method test (Podsakoff, MacKenzie, & Podsakoff, 2012).

5.7. Investigating Common Method Bias

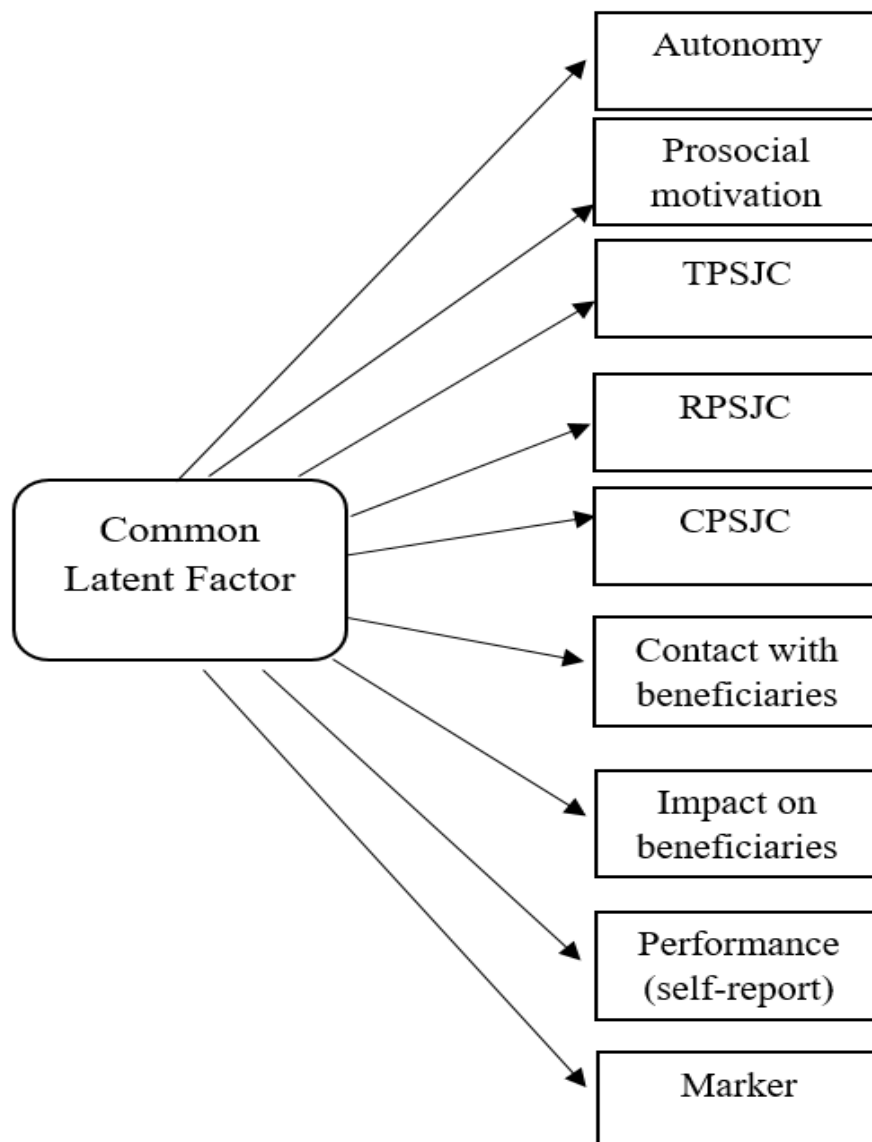
Common method variance is a “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff et al., 2003, p. 879.). There are a number of external factors that may influence the responses given. Based on Edwards (2008, p. 476.), method biases can arise from “response tendencies that raters apply across measures, similarities in item structure or wording that induce similar responses, the proximity of items in an instrument, and similarities in the medium, timing, or location in which measures are collected.” There are a number of procedural remedies that researchers can apply in order to reduce the influence of common method bias, such as measuring the predictor and criterion variables with data collected from different sources, or designing the study with a temporal or psychological separation between the measurement of the predictor and the criterion variable. In addition, keeping the scale items concise, simple, and specific can help to eliminate the ambiguity of the items, hence reducing the probability of systematic response tendencies (e.g., midpoint, or extreme responses) by the participants (Podsakoff et al., 2012).

In order to reduce the likelihood of common method bias in the current study, the predictor variables were self-report, but one of the criterion variables, namely Supervisor ratings of performance, was collected from a different source. Moreover, Supervisor ratings of performance was collected in a time-lagged design, 5 weeks after collecting the self-report study variables. Furthermore, all of the measurement scales were selected considering the simplicity and concise nature of the items.

I also conducted a statistical test to investigate whether common method bias poses a threat to the study variables measured by self-report. According to Gaskin (2016) the most current and effective approach to examine the influence of Common method

bias with latent variables is the *zero constrained test*. In a zero constrained test (Podsakoff et al., 2012), both a Common Latent Factor (Podsakoff et al., 2003) and a latent Marker variable (Williams et al., 2010) are included as part of the CFA model (*Figure 4*).

Figure 4: The visualization of the zero constrained common method test



In order to examine whether or not common method bias poses a threat, a chi-square difference test is conducted between the unconstrained model (including the Common

Latent Factor and the Marker variable) and a zero constrained model where the paths from the Common Latent Factor are constrained to zero, according to Podsakoff et al., (2012, p. 556.): “the first model (the CFA model) estimates loadings for each marker variable on a latent method factor and estimates all possible correlations among the method factor and the substantive constructs of interest, but it sets the loadings from the method factor to the indicators of the substantive constructs to zero.” The results of the chi-square difference test are presented in *Table 31*.

Table 31: The results of the χ^2 difference test between the unconstrained and the zero-constrained CMB models

	χ^2	df
Unconstrained model	410.44	305
Zero-constrained model	465.05	348

In order to conclude that common method bias is not an issue for the current model, the two models (unconstrained and zero-constrained) have to be invariant, in other words not significantly different from each other at the model level. This test examines whether the amount of shared variance across all self-report study variables is significantly different from zero. If it is, then we can establish that method bias does not pose a threat to my measures (Podsakoff et al., 2102; Gaskin, 2016). As the marker variable is statistically and theoretically not related to the other study variables -as determined in step 5.6 based on the correlations-the only shared variance is due to social desirability or common method.

Only the latent study variables that were measured through self-report were included in the current common method test. Supervisor ratings of individual

performance was excluded, as obtaining this variable from a different source served as a remedy in itself for this variable (Podsakoff et al., 2012). Moreover, the demographic control variables (age, gender, tenure) were not included either. The chi-square difference test returned non-significant results, further establishing that the factor loadings are equivalent across the unconstrained and zero-constrained models ($\Delta df = 43$; $\Delta \chi^2 = 54.60$, $p = .110 > .05$). Therefore, I was able to establish that CMB does not pose a threat for the current study and there are no notable method issues. Based on these results, I did not control for the marker variable in the further analysis.

5.8. Structural Equation Modelling (SEM)

This section reports the findings of a Structural Equation Modelling analysis with the latent variables collected in Study 2. I will examine and report the results of six models:

- Model 1: Research model
- Model 2: Full mediation model (without interaction term)
- Model 3: Partial mediation model (with additional direct affects)
- Model 4: Competing ‘reverse effect’ model
- Model 5: An alternative ‘reverse effect’ model
- Model 6: Robustness check (Model 1 without the control variables)

5.8.1. Analysis strategy

SEM is a statistical method for testing theoretical models and it could be viewed as the combination of path analysis and factor analysis. I adopted an SEM approach based on Mackinnon and colleagues (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), and tested six structural models. SEM is a widely used causal modelling method (James, Mulaik, & Brett, 2006; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005) as it allows

researcher to get information on the model fit of the tested models and estimate parameters in order to test for hypotheses, while controlling for measurement error. Following the approach of Lu, Zhou, Bruton, and Li (2010), I first estimated the baseline research model, (Model 1), followed by testing a full mediation model (Model 2), and a partial mediation model (Model 3). To rule out alternative explanations, I tested for two alternative models (Model 4 and Model 5). In the last step, I tested for robustness in the final step (Model 6). The hypotheses were assessed based on the best fitting model (Model 1). In the current model analysis, the study constructs are represented with latent variables (with the exception of the two interaction terms) and the relationships between the factors are represented by regression coefficients (Hox & Bechger, 1998).

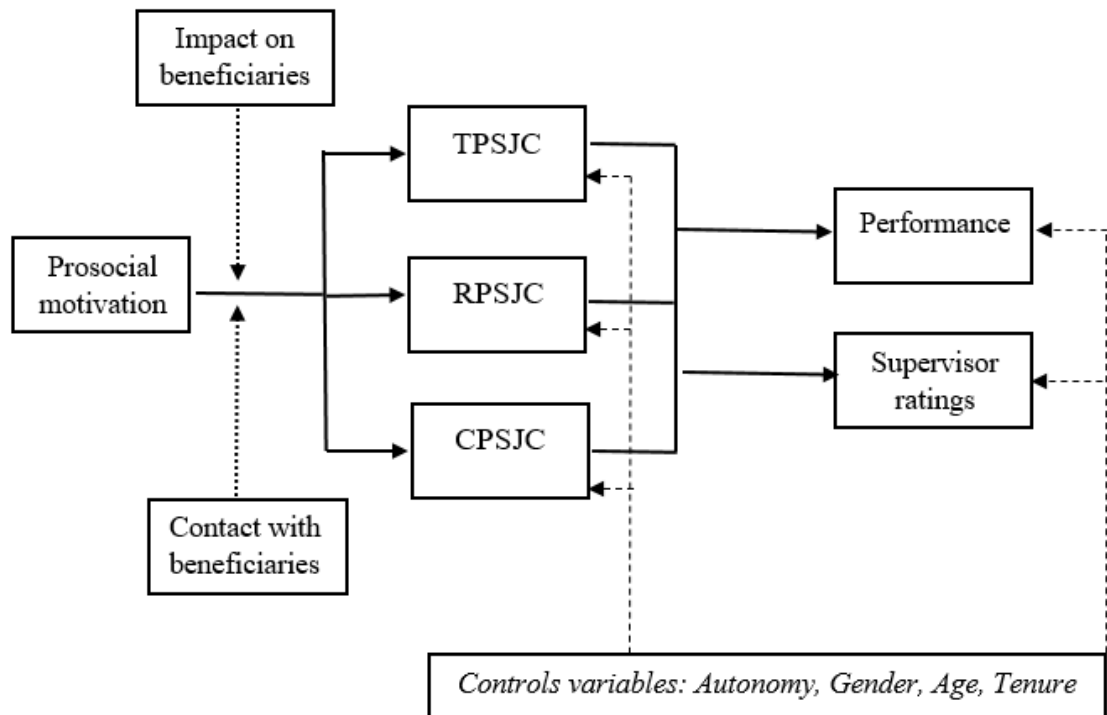
5.8.2. Testing Models 1-6

5.8.2.1. Model 1: The research model

It is recommended to utilize a range of fit indices from different categories to overcome the limitations of each index (Jaccard & Wan, 1996). The relative chi-square is ideally less than 2 or 3 (Kline, 1998; Ullman & Bentler, 2003), and the RMSEA and SRMR values were hoped to be less than or just above .05 (Steiger, 1998). CFI, TLI and IFI values closer to 1 indicate a good model fit, while a non-significant PCLOSE indicates a close model fit.

Following the recommendations of Lu et al. (2010), in the first step I tested the research model (Model 1, *Figure 5*). Model 1 returned a good model fit based on multiple fit indices ($\chi^2/df = 1.36$, RMSEA = .04, SRMR = .05, CFI = .96, TLI = .96).

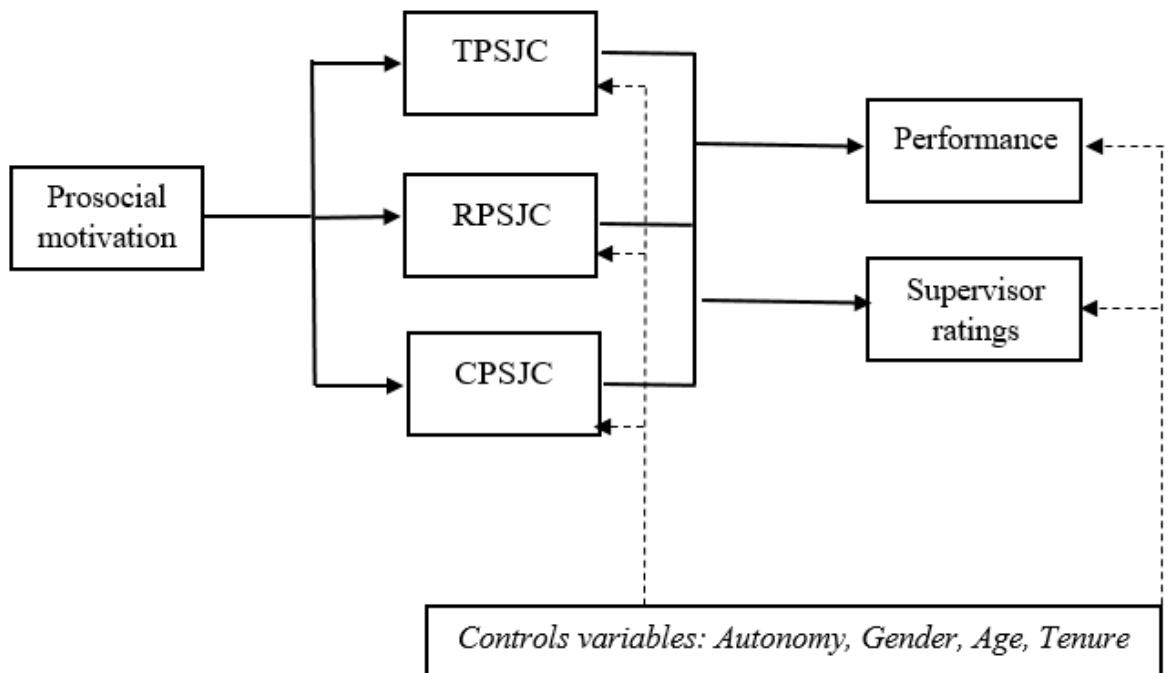
Figure 5: Model 1 – The research model



5.8.2.2. Model 2: Full mediation model

In the next step, I tested Model 2 (full mediation model) through constraining the interaction term to zero (Figure 6). Model 2 returned an excellent and improved model fit compared to Model 1, with all fit indices displaying above satisfactory values ($\chi^2/df = 1.39$, RMSEA = .04, SRMR = .05, CFI = .96, TLI = .95). The chi-square difference test confirmed that Model 1 is a significantly better fit to the data than Model 2 ($\Delta df = 6$; $\Delta \chi^2 = 24.74$; $df = 6$; > 12.59 ; $p < .05$ / $df = 6$; > 16.81 ; $p < .01$ / $df = 6$; > 22.46 ; $p < .001$). Hence, it remains the model considered for further investigation.

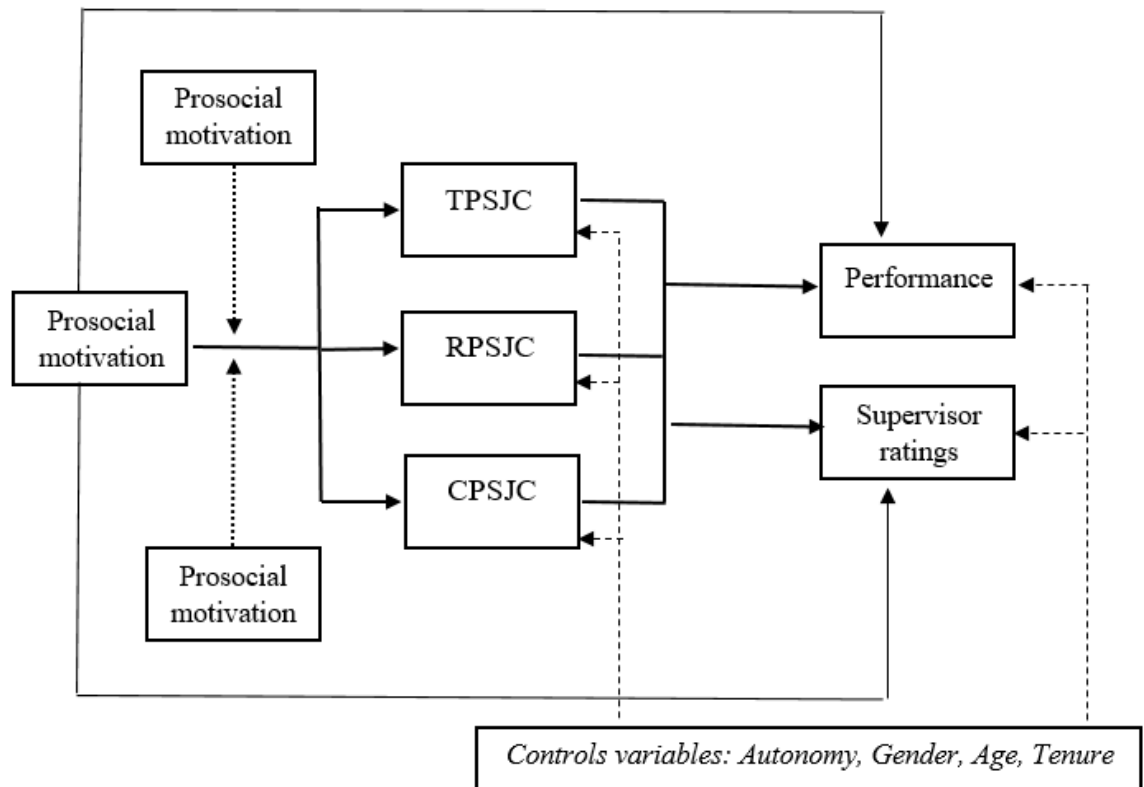
Figure 6: Model 2 – Full mediation model



5.8.2.3. Model 3: A partial mediation model

Based on the recommendations of Kelloway (1998), I compared Model 1 with a partial mediation model (Model 3) in which I added direct paths from prosocial motivation to performance and supervisor ratings of performance (Figure 7).

Figure 7: Model 3 – A partial mediation model



According to Grant (2008a), “researchers have obtained conflicting results about the role of prosocial motivation in persistence, performance, and productivity (p. 48.)”. Employees who are motivated in a prosocial way are more likely to push themselves towards completing their tasks. Prosocially motivated employees are outcome focused and they view the work as contributing to achieving their end goal, which is to benefit others. Some studies supported these views and found that prosocial motivation promotes performance, persistence and productivity through having a sense of commitment to the beneficiaries of one’s action and efforts (Grant, 2007), and by enabling dedication to a cause (Thompson & Bunderson, 2003). On the other hand, researchers also found evidence that some forms of prosocial motivation are not significantly related to job performance evaluations (Alonso & Lewis, 2001). Based on the findings regarding the

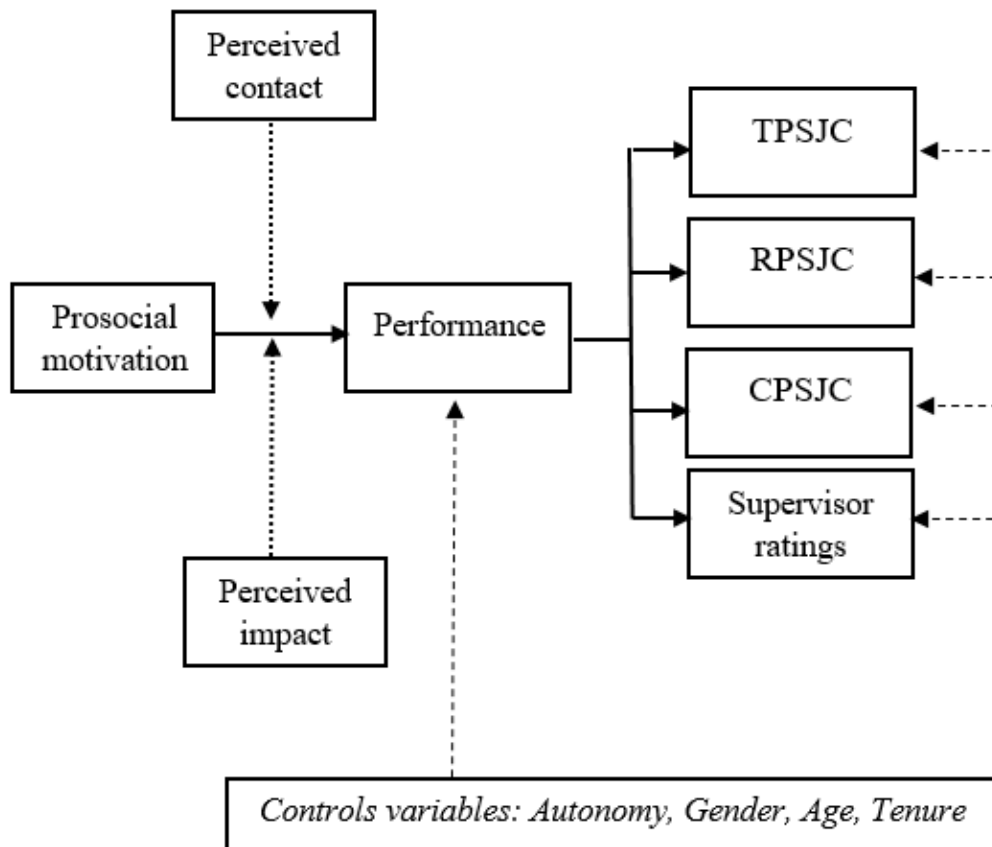
positive relationship between prosocial motivation and performance, I considered that adding direct paths in Model 3 between prosocial motivation and performance/supervisor ratings may significantly improve the model fit.

Although Model 3 displayed slightly improved model fit indices compared to Model 1 ($\chi^2/df = 1.36$, RMSEA = .04, SRMR = .05, CFI = .96, TLI = .96), the chi-square difference test showed that it is not a significantly better model compared to Model 1 ($\Delta df = 2$; $\Delta \chi^2 = 3.74$; $df = 2$; > 5.99). These results suggest that adding the direct path (prosocial motivation to supervisor ratings of performance) to Model 1 did not significantly improve the model fit. According to Morgan and Hunt (1994), the more parsimonious model is the recommended choice when there is no significant improvement between two models. Therefore, in the comparison between Model 1 and Model 3, I decided that Model 1 remains the best fitting model as the desired level of explanation is achieved with fewer paths.

5.8.2.4. Model 4: An alternative reverse effect model

To rule out alternative explanations, two rival models were tested, in which performance was set to predict TPSJC, RPSJC, CPSJC and supervisor ratings of performance (*Figure 8*). According to Clegg and Spencer (2007), performance may be both an antecedent and an outcome of job crafting behaviours based on their circular and dynamic model of job design. The researchers argue that high performing employees get more freedom from supervisors to craft their job. Moreover, high performing employees have more confidence to adjust their roles. Model 4 returned a good model fit, with somewhat worse values for the fit indices than Model 1 ($\chi^2/df = 1.41$, RMSEA = .04, SRMR = .07, CFI = .96, TLI = .95). The chi-squared difference test confirmed that Model 1 is a significantly better fit to the data than Model 4 ($\Delta df = 3$; $\Delta \chi^2 = 28.19$; $df = 3$; > 7.83 ; $p < .05$ / $df = 3$; > 11.35 ; $p < .01$ / $df = 3$; > 16.27 ; $p < .001$).

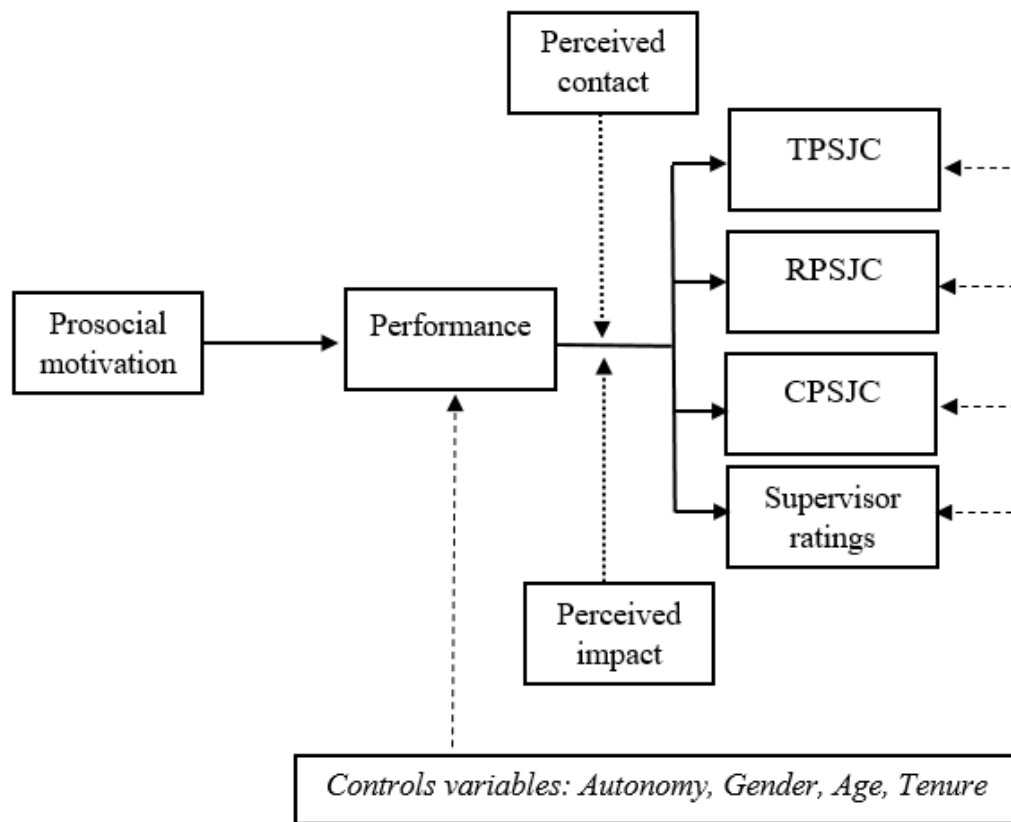
Figure 8: Model 4 – An alternative reverse effect model



5.8.2.5. Model 5: A rival reverse effect model

In the fifth step, I tested a second rival model, based on the theoretical argument outlined in section 5.8.2.4. In Model 5 only the position of the moderators changed (*Figure 9*) in order to rule out all potential alternative models. Model 5 returned a fair model fit, with considerably worse values for the fit indices than Model 1. The chi-squared difference test also confirmed that Model 1 is a significantly better fit to the data than Model 5 ($\Delta df = 10$; $\Delta \chi^2 = 64.59$; $df = 10$; > 18.31 ; $p < .05$ / $df = 10$; > 23.21 ; $p < .01$ / $df = 10$; > 29.59 ; $p < .001$).

Figure 9: Model 5 – A rival reverse effect model



5.8.2.6. Model 6: Robustness check

In the final step, in order to check for robustness (Llorens, Bakker, Schaufeli, & Salanova, 2006; Hsu, Chen, & Hsieh, 2006), Model 1 (the best fitting research model) was tested without the control variables (Model 6). Model robustness can be defined as “the sensitivity of empirical results to credible changes in model specification” (Young & Kroeger, 2015, p.2). In other words, a robust model has the ability to effectively perform, even when some of its variables are altered or removed. Hence, it is expected that Model 6 would display a good model fit, even without the control variables. This would indicate that the core study variables return a good model fit to the data. Model 6 returned a great model fit, and the beta values displayed were similar to the ones of Model 1. Hence, the

robustness of the research model was demonstrated. The model fit indices for all 6 models are displayed in *Table 32*.

Table 32: The model fit indices for all the models tested: Model 1-Model 6

	χ^2	df	χ^2/df	RMSEA	SRMR	CFI	TLI	IFI	PCLOSE
Model 1*	671.39	494	1.36	.04	.05	.96	.96	.97	.10
Model 2	696.13	500	1.39	.04	.05	.96	.95	.96	.10
Model 3	668.65	492	1.36	.04	.05	.96	.96	.97	.10
Model 4	699.59	497	1.41	.04	.07	.96	.95	.96	.99
Model 5	735.98	504	1.46	.04	.08	.95	.95	.95	.98
Model 6	466.17	344	1.36	.04	.05	.97	.97	.97	.10

**Model with the best fit*

Model 1: Research model

Model 2: Full mediation model (without interaction term)

Model 3: Partial mediation model (with added path between prosocial motivation and supervisor ratings of performance)

Model 4: Reverse effect model (switching the position of performance and the three PSJC dimensions in the model, with interaction terms)

Model 5: Reverse effect model (switching the position of performance and the three PSJC dimensions in the model, with interaction terms)

Model 6: Robustness check (Model 1 without control variables)

5.8.3. Assessment of the hypotheses

After examining the model fit indices and establishing the best model fit, the hypothesized relationships were investigated based on the best fitting model, Model 1. Hypothesis 1 was tested by examining direct relationships between prosocial motivation and the three PSJC dimensions:

***Hypothesis 1:** Prosocial motivation will positively predict (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

Hypotheses 2-4 are tested through investigating direct relationships between the three prosocial job crafting dimensions and both self-report of individual performance and supervisor ratings of performance:

***Hypothesis 2:** TPSJC will positively predict (a) performance, and (b) supervisor ratings of performance.*

***Hypothesis 3:** RPSJC will positively predict (a) performance, and (b) supervisor ratings of performance.*

***Hypothesis 4:** CPSJC will positively predict (a) performance, and (b) supervisor ratings of performance.*

Furthermore, Model 1 tests the proposed indirect relationships, examining all six mediated relationships through a bootstrapping approach with 95% confidence interval (Muthen & Muthen, 2010). The six indirect relationships were tested one-by-one, in order to avoid missing out on significant indirect effects. Through testing Hypotheses 5-7, the mediating role of TPSJC, RPSJC, and CPSJC between prosocial motivation and the two performance outcomes are investigated.

***Hypothesis 5:** TPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance*

***Hypothesis 6:** RPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance*

***Hypothesis 7:** CPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance*

Finally, Model 1 tests the moderating role of contact with beneficiaries and impact on beneficiaries on the relationship between prosocial motivation and the three prosocial job crafting dimensions, aiming to verify Hypotheses 8 and 9. In order to treat the issue of multicollinearity, the paths in the moderation model are tested simultaneously, using mean-centred interaction terms based on the recommendations of Marsh, Wen, and Hau (2004, 2006):

Hypothesis 8: *Contact with beneficiaries moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

Hypothesis 9: *Prosocial impact on beneficiaries moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.*

In the first step the direct effects between the study variables were examined. The standardized regression weight values, their associated significance level, and the R squared change values are presented in (Table 33). The R square changes were observe separately, by removing and then re-adding the particular predictor's effect (paths) in order to observe how the R-square changed.

Table 33: Standardized Beta values for direct effects

Predictor	Outcome	β	P value	ΔR^2	Hypothesis
Prosocial motivation	TPSJC	.35	.00**	.14	H1a
Prosocial motivation	RPSJC	.09	.64	.03	H1b
Prosocial motivation	CPSJC	.28	.00*	.08	H1c
TPSJC	Performance	.37	.00**	15.4	H2a
RPSJC	Performance	.04	.56	.04	H3a
CPSJC	Performance	.13	.11	.10	H4a
TPSJC	Supervisor rating	.53	.00**	.27	H2b
RPSJC	Supervisor rating	.05	.50	.07	H3b
CPSJC	Supervisor rating	.07	.37	.13	H4b

$p \leq .05^*$, $p \leq .001^{**}$

Hypotheses 1-4 were assessed by observing the significance level and value of the standardized regression weight associated with the specified direct relationships (Ullman & Bentler, 2003). Prosocial motivation positively and significantly predicted TPSJC with

$\beta = .35$ ($p \leq .001$), and CPSJC with $\beta = .28$ ($p \leq .05$ level). Therefore, H1a and H1c were accepted. However, H1b was rejected as prosocial motivation did not significantly predict RPSJC ($\beta = .09$, $p > .05$). Hypothesis 2 was accepted as TPSJC positively and significantly predicted both performance ($\beta = .37$, $p \leq .001$) and supervisor ratings of performance ($\beta = .53$, $p \leq .001$). Hypotheses 3 and 4 were rejected because RPSJC and CPSJC did not significantly predict neither Performance, nor Supervisor ratings of performance.

In the next step, in order to investigate the indirect relationships and test Hypotheses 5-7, I conducted bootstrapping to generate confidence intervals and to investigate the mediated relationships from prosocial motivation to performance and supervisor ratings, through TPSJC, RPSJC, and CPSJC (Zhao, Lynch & Chen, 2010). The aim of bootstrapping is to perform a robust analysis that reduces errors, and provides us with more accurate estimates for regression weights and R squared (Gaskin, 2016). Bootstrapping produces random sampling by replacing values in order to estimate regression weights or confidence intervals (Varian, 2005). In the process, certain participants' values are randomly replaced with the average values for the rest of the sample, while running the analysis multiple times. For the current model, I set up the statistical software to perform 2000 bootstraps, with a bias corrected interval of 95. This means that if the confidence interval of an indirect effect does not cross zero, we can establish that the indirect effect is statistically significant (Preacher & Hayes, 2008).

Through bootstrapping, I was able to establish the confidence intervals and the p values associated to the standardized indirect effects. The p values indicated ($p \leq .001$) that the indirect effects from prosocial motivation to both performance and supervisor ratings are significant. However, these standardized indirect effects did not provide information on the exact paths through which the mediation is significant.

In order to determine which of the three crafting dimensions mediate the relationship between prosocial motivation and performance/supervisor ratings, in the next step I separated the indirect effects of the three mediators (TPSJC, RPSJC, and CPSJC). In order to statistically separate the affects, I set user defined estimates (Preacher, 2015; MacKinnon & Pirlott, 2015; Gaskin, 2016) with a software plugin designed to indicate specific indirect effects (Gaskin, 2016). This plugin requires users to name the relationship between the IV and the mediator variable as **A**, and the relationship between the mediator to DV as **B**. By naming these direct relationships A and B, the software only tests the indirect affects specified with A and B through bootstrapping, set to run 2000 times. The results of the separated indirect effects are displayed in *Table 34*.

Table 34: The results of testing separated indirect affects

Predictor	Mediator	Outcome	β	Lower β	Upper β	P value	Hypothesis
Prosocial motivation	TPSJC	Performance	.12	.02	.16	.00**	H5a
Prosocial motivation	TPSJC	Supervisor rating	.22	.13	.34	.00**	H5b
Prosocial motivation	RPSJC	Performance	.00	-.00	.01	.33	H6a
Prosocial motivation	RPSJC	Supervisor rating	.00	-.01	.03	.48	H6b
Prosocial motivation	CPSJC	Performance	.01	-.00	.05	.09	H7a
Prosocial motivation	CPSJC	Supervisor rating	.03	-.01	.13	.18	H7b

p ≤ .05*, *p* ≤ .001**

Based on the findings, Hypotheses 5 is verified, as TPSJC significantly mediates the relationship between prosocial motivation and performance ($\beta = .12, p \leq .001$), and between prosocial motivation and supervisor rating of performance ($\beta = .22, p \leq .001$). Hypotheses 6 and 7 were rejected as neither RPSJC, nor CPSJC were found to significantly mediate the relationship between prosocial motivation and performance/supervisor ratings.

In the final stage, the moderating role of contact with beneficiaries and impact on beneficiaries was tested in the relationship between prosocial motivation and the three crafting dimensions. Hypotheses 8 and 9 were tested in this stage. The moderating power

of contact with beneficiaries on the relationships between prosocial motivation and the three prosocial job crafting dimensions was investigated simultaneously. Contact with beneficiaries did not significantly moderate any of the three relationships (*Table 35*). The mean-centred interaction term did not explain a significant proportion of additional variance in any of the three prosocial job crafting dimensions, with 0.7%, 0.5% and 1% explained respectively. Therefore, Hypothesis 8 was rejected.

However, the findings indicated that prosocial impact on beneficiaries significantly moderates the relationship between prosocial motivation and TPSJC (*Table 35*), and between prosocial motivation and CPSJC. The interaction term displayed a positive significant β value in the relationship with TPSJC ($\beta = .20, p < .05$) and CPSJC ($\beta = .37, p \leq .001$). In addition, the interaction term explained a significant proportion of additional variance in TPSJC (3.5%) and in CPSJC (8.3%). Therefore, Hypothesis 9a and Hypothesis 9c were accepted. Hypothesis 9b was rejected as Prosocial impact on beneficiaries did not significantly moderate the relationship between prosocial motivation and RPSJC ($\beta = .08, p > .05$), and did not explain a significant portion of additional variance ($\Delta R^2 = .00$).

Table 35: The results of the moderated relationships between prosocial motivation and the three PSJC dimensions

IV	Moderator	DV	β	P value	ΔR^2	Hypothesis
Prosocial motivation	Contact	TPSJC	.09	.21	.01	H8a
Prosocial motivation	Contact	RPSJC	.08	.28	.01	H8b
Prosocial motivation	Contact	CPSJC	-.11	.10	.01	H8c
Prosocial motivation	Ps. Impact	TPSJC	.20	.03*	.04	H9a
Prosocial motivation	Ps. Impact	RPSJC	.08	.35	.00	H9b
Prosocial motivation	Ps. Impact	CPSJC	.37	.00**	.08	H9c

$p \leq .05^*$, $p \leq .001^{**}$

The significant interactions are visualized in *Figure 10* and *Figure 11*, using an excel sheet created for interpreting interaction effects (Gaskin, 2016). The results indicate that

Impact on beneficiaries strengthens the relationship between prosocial motivation and TPSJC, and between prosocial motivation and CPSJC.

Figure 10: The significant moderation of prosocial impact on beneficiaries on the relationship between prosocial motivation and TPSJC

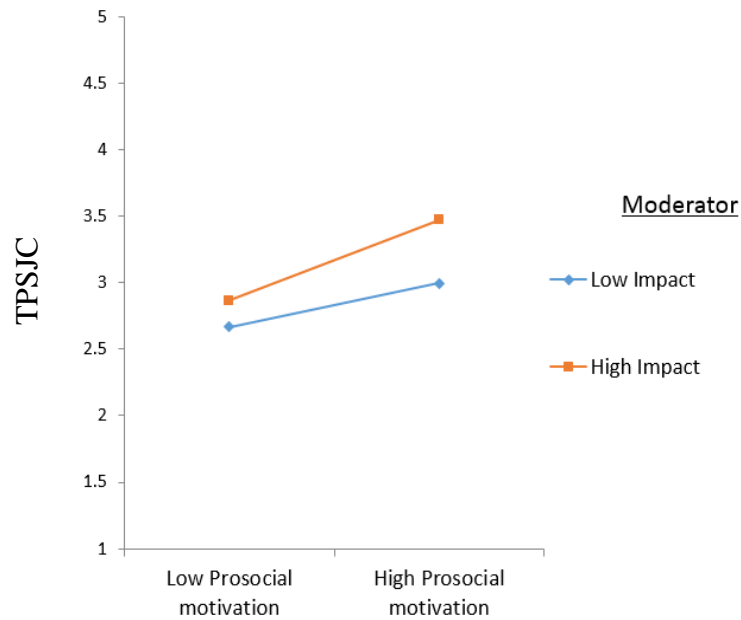
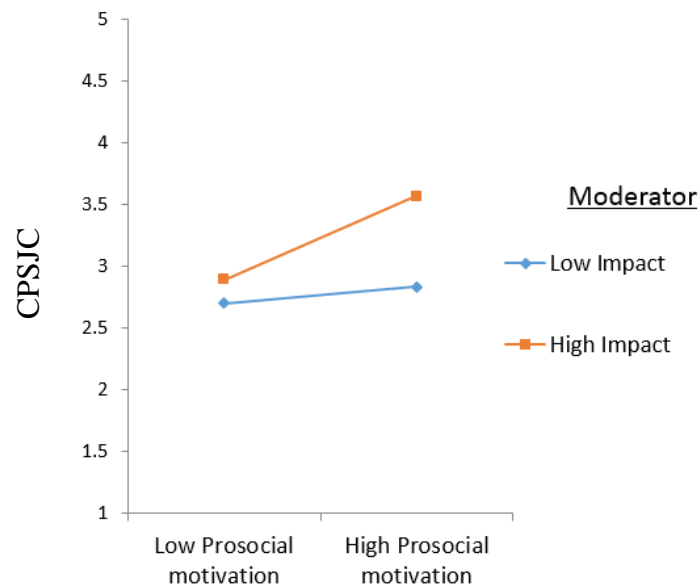


Figure 11: The significant moderation of prosocial impact on beneficiaries on the relationship between prosocial motivation and CPSJC



5.9. Chapter summary

In Chapter 5 I described a number of analysis steps leading to the testing of a conceptual model of PSJC. The data used in Chapter 5 is questionnaire data collected from 262 Hungarian participants, working in four university libraries. The variables measured with the questionnaire were: autonomy, prosocial motivation, TPSJC, RPSJC, CPSJC, performance, supervisor ratings of performance, perceived impact on beneficiaries, and perceived contact with beneficiaries. In the first stage I conducted an EFA with the nine study variables, and the analysis returned a 9-factor structure. Next, the CFA confirmed the 9 factor structure of the questionnaire data, and returned an above satisfactory model fit for the study variables based on a number of model fit indices. Moreover, all study variables displayed good AVE and CR values, and the reliability test returned a satisfactory Cronbach's Alpha value for all of the study variables.

A zero-constrained common method bias test confirmed that CMB is not a threat for the study variables regardless of the cross-sectional and self-report nature (with the exception of supervisor ratings of performance) of the study variables. In the final stage of Chapter 5, I outlined the process and results of an SEM analysis. I tested six structural models:

- Model 1: Research model
- Model 2: Full mediation model
- Model 3: Partial mediation model (with additional direct affects)
- Model 4: Competing 'reverse effect' model
- Model 5: An alternative 'reverse effect' model
- Model 6: Robustness check (Model 1 without the control variables)

The best model fit was displayed by the research model (Model 1), thus I tested the Hypotheses based on this model. The parameter estimated of Model 1 showed that

prosocial motivation significantly and positively predicts TPSJC and CPSJC, however RPSJC was not associated with prosocial motivation. As regards to the performance outcomes, TPSJC positively and significantly predicted both self-report performance, and supervisor ratings of performance. Moreover, TPSJC also mediated the relationship between prosocial motivation and both performance outcomes. On the other hand, RPSJC and CPSJC did not predict any of the two performance outcomes, and did not mediate the relationship between prosocial motivation and the two performance outcomes. Perceived impact on beneficiaries was found to positively and significantly moderate the relationship between prosocial motivation and TPSJC, and between prosocial motivation and CPSJC, strengthening the effect of prosocial motivation on the two PSJC dimensions. However, perceived impact on beneficiaries did not moderate the relationship between prosocial motivation and RPSJC, and perceived contact with beneficiaries did not moderate any of the three relationships between prosocial motivation and the three PSJC dimensions. The overview of the three empirical studies are presented in *Table 36*. In the next chapter (Chapter 6), I will discuss the findings of the empirical studies in light of existing literature.

Table 36: The overview of the three empirical studies of the thesis

	Study 1A	Study 1B	Study 2
Thesis chapter	Chapter 4	Chapter 4	Chapter 5
Research design and method	Cross sectional, self-report, questionnaire	Questionnaire, self-report, DV collected at two time-points	Questionnaire, cross-sectional, with one of the outcome variables obtained from the supervisors of the participants, in a time-lagged design.
Study aim	Scale development of the PSJCM, stages 1-4	Scale development of the PSJCM, stage 5	Testing a theoretical model of PSJC, using the PSJCM.
Study sample	Sample 1 and 2: data obtained from 500 participants via Amazon Mechanical Turk. The 500 participants were randomly split, in a 200/300 ration. The 200 participants were used as sample 1 and the 300 participants were used as sample 2.	Sample 3: data collected from university library employees in the United Kingdom. At Time 1, 243 participants completed the survey, while at Time 2, 122 participants.	Sample 4: data collected from 262 university library employees in Hungary. Performance ratings were obtained from the supervisors of the participants, 5 weeks later in a time lagged design.
Stages of analysis	The first four stages of the scale development process: 1) Item generation, pilot testing, assessing content validity	First an Exploratory Factor Analysis was conducted to establish whether the PSJCM displays the same 3 factor structure as with sample 1 and sample 2. Next, in stage 5 of the scale	First an Exploratory Factor analysis was conducted on sample 4, followed by a Confirmatory Factor Analysis and a Common Method Bias test. Finally, a Structural Equation Modelling analysis was conducted,

	<p>2) Exploratory Factor Analysis (sample 1)</p> <p>3) Confirmatory Factor Analysis (sample 2)</p> <p>4) Establishing construct validity, through testing convergent and discriminant construct validity (sample 1 and 2 combined)</p>	<p>development and validation process, the criterion validity of the PSJCM was tested through conducting multiple regressions.</p>	<p>testing six models: the proposed theoretical model of PSJC, four competing models, and a model for robustness check. The best fitting model was used to assess 9 hypotheses.</p>
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CHAPTER 6: DISCUSSION

6.1. Introduction

Work is an important aspect of life where one can establish relationships, develop self-identity and skills, and firm self-esteem (Pierce & Gardiner, 2004). Therefore, the design of jobs has a great significance to organizational scholars, and organizations as well. Thus, it is not surprising that the topic of job design has been one of the most researched areas of Organizational Psychology in the last 50 years (Oldham & Fried, 2016; Clegg & Spencer, 2007; Fried, Levi, & Laurence, 2008; Hofmans, Gelens, & Theuns, 2014). A well-designed job can lead to a number of positive individual and organizational outcomes, such as increased well-being, improved performance and productivity (Grant & Parker, 2009). Scholars have also used the design of jobs as a starting point to investigate how employees experience work in organizations.

Over time there has been a shift in job design from ‘top down’ to more ‘bottom up’ approaches, and from strictly standardized jobs to more flexible arrangements that allow proactivity (Oldham & Fried, 2016). Organizations are becoming increasingly decentralized, and as Bindl and Parker (2010, p. 3.) noted: “change is fast-paced, there is a demand for innovation, and operational uncertainty is greater than ever; all trends that mean employees need to use their initiative and be proactive”. In parallel with the focus on proactivity (e.g., Wall & Jackson, 1995; Wrzesniewski & Dutton, 2001; Grant & Ashford, 2008), organizational scholars have also started to pay increased research attention to the social aspects of work (e.g., Bateman & Organ, 1983; Brief & Motowidlo, 1986; Morgeson & Humphrey, 2006; Grant 2007, 2008b). The emerging research attention on social factors is partly due to a shift from a manufacturing to a service economy, which resulted in increased use of teams in organizations (Oldham & Hackman,

2010). Thus, there are an increased number of workplace relationships that individuals have to manage, fostering collaboration.

Consequently, organizational scholars have started to realize that the traditional business strategies are no longer applicable (Pirson & Turnbull, 2011), and that there is a need to move towards a more prosocial approach (Guinot, 2016). Both qualitative and quantitative studies have shown that for many employees, making a positive difference in other people's lives is one of the main purposes of their work (Colby, Sippola, & Phelps, 2001; Ruiz-Quintanilla & England, 1996). Therefore, increasing the opportunities to have a positive impact on others could be a crucial factor in establishing positive work meaning and work identities. Moreover, the motivation to make a prosocial difference is also a powerful driving force behind the employees' actions through increasing effort (Mitchell & Daniels, 2003), and persistence (Batson & Powell, 2003). Due to the timeliness of the topic, my research aims to extend our understanding of proactive and prosocial workplace behaviours by attempting to make a fruitful connection between the two emerging trends.

Chapter 6 discusses the findings of the empirical studies of the thesis in the light of existing literature, and provides insights into how this research enriches and enhances the current stock of knowledge regarding job crafting and prosocial organizational behaviours. First, the discussion chapter will review the findings of the scale development (Study 1a and 1b), and then move onto discussing the findings of Study 2. Following, the theoretical and practical implications of the empirical studies will be presented. Next, the chapter elaborates on the strengths, limitations of the thesis and recommendations for future research. Last, I share some thoughts of self-reflection regarding my PhD journey, closing with some final remarks.

6.2. General discussion

The main rationale for this PhD research was to advance our knowledge of job crafting by investigating a specific subset of job crafting behaviours driven by prosocial motivation, namely PSJC. As of yet, existing research on job crafting have focused on broader, and more general conceptualizations of job crafting. Moreover, the ‘rivalry’ of two opposing job crafting theories (Wrzesniewski & Dutton, 2001; Tims & Bakker, 2010) might have posed some limitations to the progress of job crafting research. Thus, my research hopes to be a step forward in understanding the subtleties of task, relational, and cognitive crafting.

Since the influential paper of Grant (2007) on the role of job design in facilitating positive outcomes resulting from prosocial motivation, there has been limited research attention on the subject. My research builds on the propositions of Grant (2007) that jobs that allow some room to make a prosocial difference might trigger job crafting behaviours. These suggestions are in line with some of the examples of job crafting outlined by Wrzesniewski and Dutton (2001), such as the example of hospital cleaners who crafted the aspect of patient interaction in their job to increase meaningfulness. However, this specific subset of job crafting behaviours led by the motivation to make a difference in others’ lives has not yet been explored in detail.

After conducting a thorough review of the existing literature, a conceptual model of PSJC was designed with the aim to quantitatively test the proposed relationships between the study variables. Consequently, the need arose to accurately capture PSJC behaviours, and a new measure was developed, contributing to the field of job crafting measurement. Chapter 3 discusses the topic of job crafting measurement, and concludes that there have been no studies on job crafting that investigated this specific subset of job crafting behaviours driven by prosocial motivation. Most quantitative studies on job

crafting use scales that were developed adapting the JD-R framework (e.g., Tims et al., 2012, 2013; Petrou et al., 2012, 2015). Only a handful of quantitative studies built on the conceptualization of Wrzesniewski and Dutton (2001), but none of the existing measures were suitable for the purposes of my study (Ghilescu, 2006; Laurence, 2010; Slemp & Vella-Brodrick, 2014; Shusha, 2014; Niessen et al., 2016). As these measures do not tap into the specific prosocial nature of the job crafting behaviours, the scale development and validation phase was a crucial step of this PhD research. Next, I will briefly discuss the findings of Study 1a and 1b, describing the steps and outcomes of the scale development process.

6.2.1. Studies 1a and 1b

As outlined in Chapter 3, the phenomenon of PSJC is a novel construct and there is no known scale for its measurement. Only a handful of quantitative studies were published on job crafting that build on the framework of Wrzesniewski and Dutton (2001), and none of these studies looked at the prosocial side of crafting. In order to be able to test the construct of interest, a new scale of PSJC had to be developed. As discussed in Chapter 4, PSJCM was developed and validated through five stages, using three samples. The purpose of the development and validation process was to meet three main objectives. First, PSJCM was expected to return a three-factor structure reflecting the three dimensions of prosocial job crafting: TPSJC, RPSJC, and CPSJC (Objective 1). Second, it was expected that the three subscales of PSJCM to show evidence of construct validity (Objective 2). Third, the three subscales of the prosocial job crafting measure were expected to demonstrate predictive validity by significantly predicting work engagement (Objective 3). Overall, I found good support for all three objectives.

Building on the original job crafting conceptualization of Wrzesniewski and Dutton (2001), Objective 1 was achieved as the PSJCM returned the expected three-factor solution at the EFA and CFA stage, thus confirming that the scale consists of three subscales, each representing one of the three dimensions of PSJCM. Although the three-dimensional framework received criticism due to its slightly vague and general nature (Tims & Bakker, 2010), I chose to adapt this framework instead of the dominant rival conceptualization of job crafting that combined crafting behaviours with the JDR theory (e.g., Tims & Bakker, 2010; Tims, Bakker, & Derks, 2012). I argue that the two job crafting theories - although use the same term - are profoundly different in terms of their proposed definition, dimensions, targets, and motivations of job crafting behaviours. While the conceptualization of Wrzesniewski and Dutton (2001) focuses on the proactive and bottom-up changes that individuals achieve in their task, relational and cognitive boundaries of their work, the JDR conceptualization emphasizes the interplay between two factors: job demands and job resources. Instead of actual alterations, the JDR framework primarily concentrates on actions that aim to balance the level of demands and resources. Moreover, job crafting behaviours within the JDR model neglect to capture crafting behaviours at the cognitive level, and I argue that cognitive crafting is a crucial component of PSJC. Achieving a three-dimensional structure for the PSJCM in the analyses stages 2 (EFA) and 3 (CFA) provide further support for the conceptualization of Wrzesniewski and Dutton (2001).

Similarly to Objective 1, Objective 2 was assessed within Study 1a (stage 4). Objective 2 states that TPSJC, RPSJC, CPSJC can show evidence of construct validity. In stage four, the construct validity of the PSJCM was assessed, which reflects “the extent to which an operationalization measures the concept it is supposed to measure” (Bagozzi et al., 1991 p. 421). To assess construct validity, the three dimensions of PSJC were

correlated with a set of carefully chosen variables: general task, relational, and cognitive crafting, personal initiative, OCB helping dimension, and manipulateness. The set of variables were chosen based on different theoretical reasons. Job crafting, personal initiative and OCB helping were chosen with the intention to demonstrate their similarity to, but also their difference from the facets of PSJC. As explained in Chapter 2, job crafting is a form of proactive behaviour, thus PSJC being a subset of job crafting, it was expected to show some underlying similarities with other proactive constructs, such as personal initiative (e.g., Frese et al., 1997; Cunningham, Preacher, & Banaji, 2001). When examining the relationship between the dimensions of job crafting and PSJC, the expected outcome was achieved by empirically demonstrating that the dimensions of job crafting and PSJC displayed significant, and positive associations with each other, but none of the correlation coefficients were above .6. Therefore, it could be established that job crafting and PSJC are related, yet not the same concept. These results support the argument that wrapping PSJC under the broader and more general conceptualization of job crafting is not sufficient due to the specific prosocial intent of this form of crafting behaviours.

The subscales of PSJC were also correlated with OCB (Brief & Motowidlo, 1986), more specifically the helping dimension of OCB (e.g., Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff et al., 2009). As discussed in Chapter 3, both PSJC and OCB are forms of POB (Bolino & Grant, 2016). However, OCB incorporates a range of behaviours that are unrelated to PSJC. Out of the seven categories of OCB identified by Podsakoff and colleagues (2000), the 'helping behaviour' dimension of OCB has the most similarities with PSJC. Although there is an overlap due to the 'helping' nature of both helping OCB and PSJC, OCB helping is restricted to assisting with work-related problems. Furthermore, PSJC behaviours

incorporate being prosocial to a wide range of individuals at work, and the aim of PSJC is not necessarily to benefit the organization, as it is for OCB. The empirical findings confirmed the assumptions regarding the two concepts and showed that PSJC and OCB helping are overlapping, but distinct variables.

The first four stages of the scale development and validation process returned the expected results, and the first two objectives were successfully achieved. The 12 items of PSJCM loaded on the expected factor, with 4 items reflecting the task, 4 items reflecting the relational, and 4 items reflecting the cognitive dimension. Moreover, the PSJCM showed evidence of construct validity, empirically confirming the expected relationships of PSJC with theoretically related and unrelated constructs.

I conducted the final stage of the scale validation process (stage 5) in study 1b, and investigated the presence of criterion validity for PSJCM in order to meet Objective 3. Criterion validity is achieved if PSJCM relates to an external criterion that theoretically should be an outcome of PSJC (Cronbach & Meehl, 1955). Work engagement was chosen as the external criteria, building on a number of studies that found it to be an outcome of job crafting (Berg et al., 2010; Bakker et al., 2012; Tims et al., 2013). Work engagement was collected at two time-points, with a three-month time lag between the two data collection points. The aim of this design was to 1) examine how the underlying dynamics of prosocial job crafting behaviours influence work engagement over time and 2) reduce the potential of common method bias and the chance of artefactual covariance by measuring the predictor and criterion variables at different time points (Podsakoff et al., 2003). The findings of Study 1b showed that although all three dimensions of PSJC displayed a significant and positive relationships with both T1 and T2 work engagement, only TPSJC and CPSJC were able to significantly and positively predict both T1 and T2 work engagement, providing support for the criterion validity of the two subscales.

Counter to expectations, RPSJC did not significantly predict either T1 or T2 work engagement.

Overall, TPSJC and CPSJC consistently returned the expected outcomes throughout Studies 1a and 1b with high factor loadings at the EFA and CFA stage, returning strong Cronbach's Alpha, AVE and CR values, and being able to predict engagement as the criterion variable. However, some of the results returned by RPSJC were counter to expectations. RPSJC had lower factor loadings and slightly lower (but still satisfactory) reliability, AVE, and CR values in both Studies 1a and 1b. But more importantly, RPSJC was not able to demonstrate evidence of criterion validity in Study 1b. Although it is not exactly clear why RPSJC returned weaker results compared to TPSJC and CPSJC, there are four potential explanations.

First, it is possible that the items of RPSJC need to be investigated further. Out of the four items of the relational subscale, the first ('Offered informal advice to benefit others at work') and the second item ('Developed friendships with others at work to benefit them') consistently returned significantly lower factor loadings compared to the third ('Helped others at work with work related personal matters') and fourth ('Helped others at work with non-work related personal matters') item. However, as the factor loadings were still at a satisfactory level, there was no statistical reason to delete these two items, or collect additional data at that point of the analyses. Although the pilot testing of the item pool through focus groups indicated that the wording of the two items is clear to the participants, and they recognized the behaviours described as behaviours that occur in their daily work life and work environment, it is possible that the small number of participants in the pilot phase of the research did not sufficiently represent the wider population.

Second, although items 3 and 4 of the RPSJC subscale were empirically the strongest items, in light of the recent propositions by McKay (2018) and Scivicque (2013), it is possible that they reflect behaviours that might seem ‘undesirable’ for some of the participants. Since some employees may feel that the workplace is a place for primarily work related activities, encouraging colleagues or customers to share personal matters with them might be viewed as unprofessional by these individuals. Also, discussing personal matters could have the potential to lead to workplace gossip (Kurland & Pelled, 2000), thus some employees may evade discussing personal matters in order to avoid negative consequences. Moreover, leaving or cutting a conversation short regarding the personal difficulties of other employees or customers may suggest a lack of empathy and feelings of indifference. Thus, some employees who engage in these scenarios may experience feelings of discomfort, a loss of focus on and time for work related tasks, and a decline in overall productivity (Venkataramani, Labianca, & Grosser, 2013). It is likely that individuals who would avoid discussing personal matters at work would also avoid encouraging the same behaviour from their colleagues and customers. At last, according to McKay (2018), many employees view sharing personal information at work as revealing a sign of weakness and vulnerability that could lead to diminished authority and decreased chances for progressing or getting promoted.

Third, due to the time and often emotional involvement of the behaviours captured by items 3 and 4, it is likely that not all individuals dispose high levels of the personality traits that would encourage others to share personal matters with them. Personality traits such as agreeableness, openness, being empathetic, caring, and compassionate (McGrath, 2014, 2015). Moreover, individuals are different in terms of their general interest towards other individuals. This explanations were also supported by some of the comments by participants of the focus groups in stage 1 on the scale development study. One library

employee commented: “Not everybody can leave their problems at home, and just pick them up after work. Some people would like some sort of emotional support at the workplace as well. But colleagues will react to this differently. Some people just want to get on with their work and not get involved”.

Fourth, it cannot be ruled out that not being able to fully meet Objective 3 was due to the choice of criterion variable. Work engagement seemed like a logical choice as previous studies show that job crafting will result in increased levels of engagement (e.g., Dutton et al., 2010; Nielsen & Abildgaard, 2012; Tims et al., 2013; McClelland et al., 2014). However, most studies investigating the relationship between individual level job crafting and work engagement framed job crafting behaviours in the JDR model (Bakker et al., 2012; Tims et al., 2013) rather than the conceptualization of Wrzesniewski and Dutton (2001). As the two conceptualizations are fundamentally different, it is possible that the findings of the studies applying the JD-R model are not necessarily transferable to similar studies that are conducted based on the original job crafting conceptualization? Moreover, the studies that built on the job crafting theory of Wrzesniewski and Dutton (2001) are mainly qualitative or theoretical in nature (Dutton et al., 2010; Berg et al., 2013), or focus on team level crafting and engagement rather than individual level (McClelland et al., 2014). Due to the promising results yielded by two out of the three subscales in addition to the restrictions in time and resources, the decision was made to not repeat the criterion validity phase of the scale development process with new data. It is recommended for future research to conduct further testing of RPSJC with different outcome variables in addition to work engagement and performance.

To sum up, Studies 1a and 1b provide a significant contribution to the literature by developing and validating a new measure of PSJC. PSJCM is a tool that from now on can be used in future studies on PSJC to capture the concept. Moreover, developing a

measure for a specific subset of job crafting opens up a new research avenue for future research, and hopefully encourages organizational scholars to investigate more specific forms of job crafting behaviours.

6.2.2. Study 2

Study two focuses on testing the proposed theoretical model of PSJC, adapting a Structural Equation Modelling (SEM) approach. I tested different structural models and assessed nine hypotheses using the best fitting model, and found generally good support for them. In the model testing phase I adopted the SEM approach by Mackinnon et al. (2002), recommending to test multiple structural models. Altogether six structural models were assessed, starting with the proposed research model (Model 1, *Figure 5*). As outlined in Chapter 5, next I assessed a full mediation model (Model 2), and a partial mediation model (Model 3). Following, I tested two alternative models in order to rule out potential substitute theoretical explanations (Model 4 and Model 5), and at last I conducted a robustness check (Model 6) and tested the research model without the control variables. In Models 4 and 5 performance was set to predict TPSJC, RPSJC, CPSJC and supervisor ratings of performance. According to Clegg and Spencer (2007), traditional approaches of job design are limited in terms of treating performance as solely an outcome variable: “tradition also treats job design as a predictor variable, job performance as an outcome and the causal flow as unidirectional” (p. 322.). The researchers propose that performance can be both an antecedent and an outcome of job crafting behaviours based on their circular and dynamic model of job design. Clegg and Spencer (2007) theorize that if employees are performing well, they are more likely to take control of their jobs as they feel that they are trusted and that their competences are recognized. These employees are more likely to take proactive actions to adjust and enlarge their roles. Also, supervisors and peers are more likely to see the job crafting activities of high

performing employees as an ‘earned right’. Although this is a potential alternative explanation, Model 4 and 5 returned a significantly worse model fit compared to the other models. Overall, the model testing phase resulted in an important contribution to theory as the findings supported the theoretical assumptions and expectations, and the research model (Model 1) was found to be the best fitting model.

In addition to the proposed research model returning the best fit, one other key contribution of study two is the combination of variables included in the conceptual model. When designing the model of PSJC, I considered the propositions of Bolino and Grant (2016), stating that there is a lack of studies that integrate and investigate all three connected lines of prosociality in organizations. These are: prosocial motivation, POB, and prosocial impact. PSJC represents the POB dimension in the model, and to achieve a more subtle understanding of the underlying mechanisms of the concept, the three forms of PSJC were examined separately, as distinct constructs. The theoretical model includes prosocial motivation as the antecedent variable, and prosocial impact as one of the moderator variables. As noted above, the proposed research model was found to be the best overall model, therefore this model was used for the assessment of the nine hypotheses (Mackinnon et al., 2002). An overview of the hypotheses and findings is displayed in *Table 37*.

Table 37: An overview of the results of the hypothesis testing

Hypotheses	Accepted	Rejected
H1: <i>Prosocial motivation is positively predicts (a) TPSJC, (b) RPSJC, and (c) CPSJC</i>	H1a, H1c	H1b
H2: <i>TPSJC positively predicts (a) performance, and (b) supervisor ratings</i>	H2a, H2b	
H3: <i>RPSJC positively predicts (a) performance, and (b) supervisor ratings</i>		H3a, H3b
H4: <i>CPSJC positively predicts (a) performance, and (b) supervisor ratings</i>		H4a, H4b
H5: <i>TPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance</i>	H5a, H5b	
H6: <i>RPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance</i>		H6a, H6b
H7: <i>CPSJC mediates the positive effect of prosocial motivation on (a) performance and (b) supervisor rating of performance</i>		H7a, H7b
H8: <i>Prosocial contact with beneficiaries positively moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.</i>		H8a, H8b, H8c
H9: <i>Prosocial impact on beneficiaries positively moderates the relationship between prosocial motivation and (a) TPSJC, (b) RPSJC, and (c) CPSJC.</i>	H9a, H9c	H9b

Hypothesis 1 theorized that prosocial motivation predicts (a) TPSJC, (b) RPSJC, and (c) CPSJC, and it was tested by examining direct relationships between prosocial motivation and the three PSJC dimensions. Wrzesniewski and Dutton (2001) identified three core needs as the antecedents to job crafting; the need for control, the need for positive self-image, and the need for human connections. In addition to individual needs, the general motivational orientations of employees also affect job crafting. Depending on whether the

individual is intrinsically or extrinsically motivated, they may engage in different kinds of job crafting behaviours (Grant, 2008a). Individuals with intrinsic motivations for working may engage in job crafting behaviours that allow them to use their skills and competence in their work. By contrast, extrinsic motivations for working may facilitate job crafting that limits the relational or task boundaries of the job. As regard to prosocial job crafting, this research proposes that the core motivation for PSJC behaviours is prosocial motivation. Prosocial motivation is “the desire to expend effort to benefit other people” (Grant, 2008a, p. 49). A number of studies adapting different conceptualizations and measures of prosocial motivation suggest that prosocial motivation is associated with higher levels of various extra-role behaviours (e.g., Bing & Burroughs, 2001; Rioux & Penner, 2001, Ilies, Scott, & Judge, 2006), and in line with these findings, I theorized that it is the primary predictor of PSJC behaviours. Based on the results, prosocial motivation was found to positively and significantly predict TPSJC and CPSJC. Therefore, H1a and H1c were accepted. However, H1b was rejected as prosocial motivation did not significantly predict RPSJC. Although this was an outcome counter to expectations, overall it is in line with the consistent weaker performance of RPSJC, and may be attributed to the four potential explanations outlined in section 6.2.1.

The choice of individual level performance as the outcome variable is also an important contribution to the literature as there are surprisingly few relevant studies investigating the relationship between job crafting and performance. The majority of existing studies on job crafting and performance adapt the JD-R conceptualization (e.g., Bakker, Tims, & Derks, 2012; Tims, Bakker, Derks, & van Rhenen, 2013; Tims, Bakker, & Derks, 2015), and only a limited number of these studies (Leana et al., 2009; Laurence, 2010; McClelland et al., 2014; Weseler & Niessen, 2016) built on the job crafting conceptualization of Wrzesniewski and Dutton (2001). Moreover, the studies by Leana

et al. (2009) and McClelland et al. (2014) looked team level variable. Consequently, as far as I am aware, as of yet there are only two existing studies investigating the relationship between individual level task/relational/cognitive crafting with individual level performance (Laurence, 2010; Weseler & Niessen, 2016). However, both of these studies have some noteworthy limitations, such as adapting a cross-sectional design, and measuring job crafting behaviours with scales that have not gone through a rigorous validation process. Moreover, the hierarchical regression analysis strategy adapted by Weseler and Niessen (2016) is somewhat simplistic.

Hypotheses 2-4 states that TPSJC (H2a, b), RPSJC (H3a, b), and CPSJC (H4a, b) positively and significantly predict self-report, and supervisor ratings of performance. I theorized that prosocially motivated employees will perform better if they can tailor their jobs' task, relational, and cognitive boundaries in order to allow them to act and think in a more prosocial manner. Being able to create a more meaningful job will motivate these individuals to expand their effort and perform better. Hypotheses 2-4 were tested through investigating direct relationships in Model 1 between the three PSJC dimensions and both self-report of individual performance and supervisor ratings of individual performance. Based on the findings, Hypothesis 2 was accepted as TPSJC positively and significantly predicted both performance outcomes. However, counter to expectation, Hypotheses 3 and 4 were rejected because RPSJC and CPSJC did not significantly predict neither forms of performance outcomes. Although the findings regarding H3 and H4 were unexpected, RPSJC's inability to predict the outcome variable is in line with the previously observed trend in Studies 1a and 1b, outlined in section 6.2.1.

Studies show that employees who have a broader view of their roles receive higher performance ratings from supervisors (Parker, 2007), hence the findings regarding CPSJC's inability to predict supervisor ratings of performance is unexpected. However,

attribution theory could yield a potential explanation. Based on Attribution Theory (Bolino, 1999), it is suggested that supervisors need to attribute the behaviour to prosocial intentions in order for proactive behaviours to contribute to higher overall performance ratings. According to Grant, Parker, and Collins (2009, p. 36), “when employees express strong prosocial values, supervisors are likely to attribute their proactive behaviours to benevolent intentions. Employees with strong prosocial values develop a track record for engaging in proactive behaviours for the benefit of other people and the organization.” The researchers found that supervisors gave better performance ratings to employees who engaged in proactive behaviours that were associated with strong prosocial values. As CPSJC is displayed at a cognitive level, these behaviours are not visible to supervisors. Thus, CPSJC did not have an influence on objective performance ratings. However, there is no obvious explanation for CPSJC’s inability to predict self-report performance. Therefore, it is recommended for future research to further investigate the relationship between CPSJC and performance outcomes.

For Hypotheses 5-7, I integrated the rationale for Hypothesis 1 and Hypotheses 2-4, and I theorized that prosocial motivation fuels PSJC, which in turn leads to improved performance, both in the form of self-report and supervisor ratings. Based on the findings, Hypotheses 5 is verified, as TPSJC significantly mediates the relationship between prosocial motivation and performance, and between prosocial motivation and supervisor rating of performance. In line with the results of H3 and H4, Hypotheses 6 and 7 were rejected as neither RPSJC, nor CPSJC were found to significantly mediate the relationship between prosocial motivation and performance/supervisor ratings.

Hypotheses 8 and 9 were tested last, theorizing the moderating effects of contact with beneficiaries (H8a, H8b, H8c) and prosocial impact on beneficiaries (H9a, H9b, H9c) on the relationship between prosocial motivation and the three PSJC dimensions.

These two moderators are the two key dimensions of prosocial job characteristics, introduced by Grant (2007, 2008b). Unexpectedly, contact with beneficiaries was found to not moderate any of the three relationships, therefore H8 was rejected. A potential explanation for this outcome is that the different positions in academic libraries do not differ significantly in terms of the amount of contact the positions entails. Most participants in study two worked in team settings, and customer facing roles, therefore frequent contact with others is part of their daily work life. This explanation is supported by the low standard deviation value ($SD = .87$) returned by the variable 'contact with beneficiaries' in study 2. A low SD value indicates that the replies of the participants are more clustered around the mean, and less spread out (Field, 2013).

On the other hand, the assessment of H9 indicated that prosocial impact on beneficiaries significantly moderates the relationship between prosocial motivation and TPSJC, and between prosocial motivation and CPSJC. As noted previously, in order to gather a fuller understanding of prosociality, Bolino and Grant (2016) recommended the integration of three dimensions, namely prosocial motivation, prosocial behaviours, and prosocial impact. Thus, including the dimension of prosocial impact in the research model was a rational step in order to get a clearer picture. Furthermore, according to Wrzesniewski and Dutton (2001), motivation to craft intensifies when employees perceive that there is an opportunity to craft. Thus, opportunities to make prosocial impact is likely to influence the relationship between prosocial motivation and PSJC. After examining the findings, in line with expectations, H9a and H9c were accepted. However, H9b was rejected as impact on beneficiaries did not significantly moderate the relationship between prosocial motivation and RPSJC.

Following the assessment for Hypotheses 1-9, as well as reflecting on the results of Studies 1a and 1b, and the preliminary analyses of Study 2, it becomes apparent that

RPSJC consistently yields results counter to expectations. There are a number of potential issues that could explain this tendency of the findings. It is possible that the source of these unexpected results is a measurement issue, as RPSJC displayed weaker results in study 1a compared to the other dimensions. As noted above in section 6.2.1, two items of the RPSJC subscale used with the sample of Study 2 may reflect behaviours that might seem unfavourable for some of the participants, and perhaps are viewed as behaviours that may be frowned upon by management. Some employees might feel that these behaviours captured are unprofessional, and that encouraging colleagues or customers to share personal matters might lead to less time to complete their work duties (Venkataramani et al., 2013).

Although I did not have the opportunity to collect qualitative data from the sample of study two to shed light on these findings, these potential issues with the behaviours captured by RPSJC may be even more prevalent in the context of Study 2. The participants of Study 2 were informed that they can be identified through the personalized link that was created and sent to their individual email addresses. Although I explained the research scenario in detail in the questionnaire brief and reassured the participants that the identification will only be used to match their responses to the supervisor ratings of performance and afterwards all identifiable information will be removed, it is possible that the research design made some of the participants more cautious with their responses. Although a CMB test (Podsakoff et al., 2012) was conducted in Study 2 and indicated that CMB is not a threat for the study, it is still possible that the participants provided more socially desirable responses in the case of RPSJC, and in turn indicated low levels of engagement in these behaviours (Paulhus & Reid, 1991). This is further supported by the lower mean value of RPSJC in study 2 ($M = 2.56$) compared with TPSJC ($M = 3.39$) and CPSJC ($M = 3.00$).

As regard to CPSJC, the subscale returned mixed results. CPSJC showed consistently strong results in Study 1b, it was the strongest predictor of work engagement out of the three dimensions in Study 1b and yielded promising results in the preliminary analytical stage of Study 2. Moreover, CPSJC was significantly predicted by prosocial motivation (H1c), and this relationship was strongly and positively moderated by prosocial impact on beneficiaries (H9c). However, CPSJC was not able to predict self-report and supervisor ratings of performance, and did not mediate the relationship between prosocial motivation and the performance outcomes (H4a, b; H7a, b). Although the findings regarding CPSJC are varied, to my knowledge there is almost no existing quantitative research investigating the cognitive dimension of crafting, thus these results are an important contribution to existing knowledge on job crafting.

Overall, the strongest results and most valuable contributions were yielded by TPSJC, as the dimension consistently displayed promising results. TPSJC displayed strong reliability, AVE, and CR values in all empirical studies, it was significantly and positively predicted by prosocial motivation (H1a), and was able to significantly predict work engagement (Objective 3), and both performance outcomes (H2). Moreover, TPSJC significantly and positively mediated the relationship between prosocial motivation and both performance outcomes (H5). These results reflect the currently emerging broader research interest on the task dimension of crafting behaviours (e.g., McClelland et al., 2014, Lin et al., 2017). Task crafting is the primary form of job crafting (Lin et al., 2017), and out of the three crafting dimensions, this is the most transparent, explicit, and visible to others. Although one could argue that RPSJS is visible as well, the behaviours captured by TPSJC such as ‘taking on additional work tasks that benefit others’ and ‘introducing new approaches to one’s work tasks that benefit others’ are work related behaviours concerning one’s tasks. In comparison, some of the behaviours captured by RPSJC might

be more personal rather than professional in nature. Thus, it is unlikely that engaging in TPSJC behaviours would be frowned upon by supervisors. According to the Attribution Theory (Kelley & Michela, 1980; Bolino, 1999), it may be possible that the supervisors gave better performance ratings to employees who engaged in visible proactive behaviours that were associated with strong prosocial values. However, due to the strong correlation between self-report and supervisor ratings of performance found in Study 2 ($r = .59, p < .001$), it is more likely that engaging in frequent TPSJC behaviours results in better performance, as opposed to just being viewed more favourably by the supervisors for being helpful. As noted before, TPSJC demonstrated to be driven by prosocial motivation, and prosocial impact was found to moderate this relationship. Prosocially motivated employees recognize the opportunities for prosocial impact and expand their effort through engaging in TPSJC, and in turn creating a better person-job fit for themselves. Thus, optimizing their work environment and work experience results in the improved performance for these employees. Moreover, as discussed in Chapter 3, it is possible that engaging in TPSJC can also improve the confidence of the individual, which in turn leads to improved performance (Bolino & Grant, 2016).

6.3. Theoretical contributions of the research

My PhD thesis contributes to theory and literature in a number of notable ways. *First*, the research advances our knowledge and understanding of job crafting by exploring a new avenue for research and investigating a subcategory of crafting behaviours that is linked to a specific motivation. The examination of PSJC is particularly timely given the changes occurring within the economy, with an ever growing shift towards services, compelling organizations to meet the needs of their customers to succeed and survive (Oldham & Fried, 2016). The more frequent use of teams in a variety of industries resulted in a

growing number of new working relationships, in which employees can express and experience prosocial behaviours. Moreover, in today's uncertain job market, a significant percentage of people are likely to take on job roles that they did not necessarily desire, envisioned, and planned for, and PSJC can be a fruitful way to improve and create meaningfulness in a variety of jobs.

Second, as part of the first empirical study, a new scale was developed for the measurement of PSJC (PSJCM), contributing to the field of job crafting measurement. Following a thorough review of the literature on job crafting measurement, I concluded that there were no suitable existing job crafting measures that captured the specific prosocial nature of the job crafting behaviours of interest. Moreover, most quantitative studies on job crafting use scales that were developed adapting the JD-R framework (e.g., Tims et al., 2012, 2013; Petrou et al., 2012, 2015), and only a handful of quantitative studies built on the conceptualization of Wrzesniewski and Dutton (2001). All three subscales of the PSJCM yielded promising results, with all three returning good reliability, AVE, and CR scores, and showed evidence of content, and test validity in both Studies 1 and 2. Developing a tool for the measurement of PSJC contributes to the literature and enables future research studies to capture the concept.

Third, the research model tested in Study 2 contributes to our current knowledge on prosociality in organizations by synthesizing the three main research avenues of the subject, namely prosocial motivation, prosocial impact, and prosocial behaviour. As Bolino and Grant (2016, p. 2.) noted, "there has been little effort to systematically review and integrate these related lines of work in a way that furthers our understanding of prosociality in organizations". The results of study two showed that prosocial motivation predicted two out of the three dimensions of PSJC, namely TPSJC, and CPSJC.

Moreover, prosocial impact was found to moderate the relationship between prosocial motivation and TPSJC, which is a form of POB.

Fourth, Study 2 contributes to our understanding of the relationship between job crafting and performance. As of yet, only a limited number of job crafting studies building on the original theory (Wrzesniewski & Dutton, 2001) investigated and found support for a positive relationship between job crafting and performance. Moreover, these studies are looking at team level (or collaborative) crafting, and team level performance as an outcome (Leana et al., 2009; McClelland et al., 2014). Only two studies were identified that examine the relationship between individual level job crafting and individual level performance, and found a positive relationship (Laurence, 2010; Weseler & Niessen, 2016). However, the studies have a number of notable limitations. Laurence (2010) collected data in a cross-sectional manner, and job performance was measured solely through self-report. Whilst Weseler and Niessen (2016) limited their analyses to hierarchical regressions. In order to advance our knowledge on individual level job crafting's influence on performance, this research investigates this relationship. Individual level performance was assessed through both self-report and supervisor ratings, providing a richer understanding of this relationship. Although only TPSJC was able to predict both self-report and supervisor ratings of performance, it was also found to positively and significantly mediate the relationship between prosocial motivation and both performance outcomes. This indicates that TPSJC is a primary form of PSJC, and deserves further research attention in future studies.

Fifth, the results of Study 1b also contribute to our understanding regarding the relationship between work engagement and job crafting adapting the original theory (Wrzesniewski & Dutton, 2001). As with performance, a similar tendency can be observed regarding the relationship between individual level job crafting and work

engagement, as most studies investigating this link have been adapting the JD-R job crafting conceptualization (Bakker et al., 2012; Nielsen & Abildgaard, 2012; Tims et al., 2013), and only very few studies looked at this association adapting the original job crafting framework (e.g., McClelland et al., 2014).

Sixth, as to my knowledge, very limited quantitative research has focussed on the cognitive dimension of job crafting. After an extensive literature search, only two studies were identified to have quantitatively investigated cognitive crafting and its relationship with other variables. A study by Slemp and Vella-Brodrick (2014) assessed the relationship between cognitive crafting and well-being, whilst Weseler and Niessen (2016) examined the relationship between cognitive crafting and task performance. However, there are no existing studies on the relationship between cognitive crafting and work engagement. Thus, my research adds to our yet narrow understanding on the cognitive dimension of job crafting, and more specifically, CPSJC. Moreover, as CPSJC was found to be a significant predictor of work engagement in Study 1b, I recommend for future research to investigate this relationship further.

Overall, the most notable contributions of my research are the promising results of TPSJC. TPSJC was able to significantly and positively predict both work engagement and performance (self-report and supervisor ratings). Moreover, it significantly and positively mediated the relationship between prosocial motivation and the two performance outcomes.

Based on the findings of Studies 1 and 2, TPSJC is more salient and occurs more frequently and commonly compared to relational prosocial job crafting (RPSJC). It is also more visible compared to cognitive prosocial job crafting (CPSJC), as CPSJC occurs on a cognitive level. It is also likely that jobs offer more opportunities for TPSJC compared to RPSJC. This was supported by the distribution of the open-ended responses provided

by the samples of the empirical Studies 1a and 1b. Majority of the participants provided examples for TPSJC, and a much fewer individuals noted examples for RPSJC and CPSJC behaviours. As noted before, focusing on the task dimension of crafting is in line with the current research trend. As an example, Lin et al. (2017) recently published a paper in the Academy of Management Journal focusing on the task crafting activities of teachers in a three-waved time-lagged quantitative study. The researchers adapted the conceptualization of Wrzesniewski and Dutton (2001), but focussed only on the task dimension, as the primary form of crafting. Lin et al. (2017) found that perceived underemployment positively led to task crafting, indicating that the participating teachers used task crafting to create a better job-environment fit.

6.4. Strengths, limitations, and recommendations for future research

6.4.1. Strengths

There are a number of notable strengths to this PhD research. *First*, the thesis presents two rigorous empirical studies: a scale development study (Study 1a, b), and a study testing a conceptual model of PSJC (Study 2). Conducting multiple studies enabled the doctoral research to contribute to theory and literature in a number of different ways (outlined in section 6.3). *Second*, both studies were carefully designed in order to follow good practice. Study 1 adapted a rigorous study design for scale development and validation, following the recommendations of a number of prominent scholars (Gerbing & Anderson, 1988; Clark & Watson, 1995; De Vellis, 2016) and following the steps of previous job crafting scale development studies (e.g., Tims & Bakker, 2012; Slemp & Vela-Brodrick, 2013). Study 2 followed a good practice of a Structural Equation Modelling approach, building on the recommendations of Mackinnon et al. (2002), and tested multiple structural models. *Third*, the data collection for both Study 1b and Study

2 adapted a time lagged design where the outcome variable was measured at a later time point compared to the other study variables. In Study 1b, work engagement as the criterion variable was measured at two time points, with a 3-month lag between the measurement points. In Study 2, supervisor ratings of performance (outcome variable) was collected 5 weeks after closing the online questionnaire measuring all other study variables. Adapting a time-lagged design improves the validity of conclusions regarding causality, and reduce the risk of common method bias (Podsakoff et al., 2003). *Fourth*, in order to further reduce the risk of method bias, one of the two outcome variables of Study 2 was collected from a different source as opposed to self-report, namely from the supervisors of the participating library employees. Although this particular design element of Study 2 was challenging to achieve, and significantly slowed down the data collection process due to difficulties with organizational access, the benefits of including an objective variable outweighed the disadvantages. Similarly to adapting a time-lagged or longitudinal research design, collecting the outcome variable from a different source can reduce the risk of method bias, such as common rater effects (Podsakoff, Whiting, Welsh, & Mai, 2013), which is the “artifactual covariance between the predictor and criterion variable produced by the fact that the respondent providing the measure of these variables is the same” (Podsakoff et al., 2003, p. 882.). *Fifth*, both Studies 1 and 2 returned encouraging results. As a result of Study 1, a scale was developed and validated for the measurement of PSJC, yielding promising scale properties (e.g., factor loadings, AVE, CR, reliability values). Moreover, the results of the SEM analyses in Study 2 showed that the proposed research model was the best fitting model out of the 6 structural models tested, and found overall good support of the hypotheses. Furthermore, as outlined in section 6.3., the results returned by the TPSJC subscale feed into the current broader research interest on job crafting (e.g., Lin et al., 2017).

6.4.2. Limitations and recommendations for future research

As with all research, there are opportunities to improve in a number of ways, and there are some notable limitations. The *first* and main limitation of this research is the unexpected results returned by RPSJC. As noted prior, RPSJC consistently returned weaker results compared to the two other dimensions, and was unable to predict work engagement, self-report and supervisor ratings of performance. It is recommended that future research test the RPSJC subscale with a new sample, new organizational context, with additional criterion variables, and make amendments in the items if needed.

Second, the sample size was satisfactory for Study 1a, but it was slightly lower than desired in Studies 1b and 2, although still within the bounds of acceptability (Wolf, Harrington, Clark, & Miller, 2013).

Third, the majority of the variables collected in the empirical studies were measured in a cross-sectional design and in a form of self-report, which increases the risk of method bias (Podsakoff et al., 2003, 2012). Although it would have been more appropriate to test the concurrent and predictive criterion validity of the PSJCM using objective external criteria (Robinson, 2018), I aimed to mitigate this limitation by measuring the outcome variable of Study 1b in a time lagged design with 3 months between the 2 measurement points. Regardless, I recommend for future research to re-test the criterion validity of PSJCM using objective behavioural data (e.g., the number of different tasks that people are observed to perform, with crafters performing a larger number of tasks) as the external criteria. To address this limitation, one of the two outcome variables of Study 2 was collected from the supervisors of the participants in order to increase objectivity. The supervisor ratings were also collected in a time-lagged manner, with 5 weeks between the measurement of the self-report data and the

measurement of the supervisor ratings of performance. Furthermore, in Study 2 I conducted a thorough common bias test, namely a zero constrained test following the recommendations on Podsakoff et al. (2012), and confirmed that CMB is not a threat to the sample of Study 2.

Fourth, the studies using field samples (Studies 1b and 2) were restricted to one specific organizational context, namely academic libraries. In this workplace setting, employees experience a variety of workplace relationships by working closely with each other, but also with their ‘customers’ (students, faculty). Multiple studies on job crafting have been conducted with teachers (e.g., Leana et al., 2009; Lin et al., 2017), and I propose that the environment of academic libraries is a similar, and equally relevant setting (if not more so), given the more broadly applicable customer-service operative relationships present within library settings. However, in order to get a broader understanding of PSJC behaviours, it would be valuable for future research to investigate the concept in different occupational settings. Although the chosen context of academic libraries is an interesting and novel setting and relevant to the concept of PSJC, restricting the research to one context may raise generalizability issues. On the other hand, having the same or similar organizational setting in the different studies reduces the amount of contextual variability between the samples and aids comparison (Howard & Kahana, 1999).

Fifth, as with any research study there is a trade-off to be made between parsimony and breadth. Consequently, I did not investigate additional antecedent and outcome variables that could have been relevant for providing further understanding of these specific proactive and prosocial behaviours. Although prosocial motivation was the logical choice as the antecedent variable in Study 2, there are a number of additional antecedent variables that would have been beneficial to investigate. According to Haidt

(2003) there are four key moral emotions, namely empathy, elevation, gratitude, and guilt. Previous research demonstrated that prosocial and helping behaviours can be motivated by these four behaviours (Bartlett & DeSteno, 2006; Algoe & Haidt, 2009; Ilies, Peng, Savani, & Dimotakis, 2013), thus it would be interesting to investigate how they may influence PSJC behaviours. Moreover, due to the overall limited number of studies that adapted the job crafting conceptualization on Wrzesniewski and Dutton (2001), we still have insufficient understanding regarding the different individual, interpersonal, occupational, and organizational factors that may support or limit job crafting. There are a number of fruitful research avenues to enable a deeper understanding of job crafting, and PSJC. Which particular personality traits may be linked to specific types of job crafting? What is the role of organizational culture/climate in enabling or limiting crafting behaviours? Can job crafting be ‘contagious’? Do individuals prioritize tasks with higher prosocial impact, and attach lower priority to tasks that have fewer beneficiaries?

Moreover, there are a variety of outcome variables that would have been valuable to investigate but due to the time and resource restrictions of this project, I was not able to include the desired range and quantity of concepts. Adapting a positive organizational psychology perspective, my thesis only examined potentially positive outcomes of PSJC, such as work engagement and performance. However, in a recent review on prosocial organizational behaviours by Bolino and Grant (2016), the researchers point out that examining potential negative outcomes of prosocial behaviours could lead to valuable insights. As the researcher noted: “prosociality appears to become increasingly counterproductive at high levels, probably due to resource costs” (Bolino & Grant, 2016, p. 50). There are a number of ways prosocial behaviours could lead to negative outcomes, according to Bolino and Grant (2016). First, individuals engaging in PSJC may make unfair or unethical decisions through prioritizing the interest of one beneficiary over

other. Second, when engaging in prosocial behaviours such as PSJC, there is a possibility of an erroneous perspective, leading to a misunderstanding of the needs of others. Third, engaging in high levels of PSJC may lead to fatigue, which in turn can lead to exhaustion, feelings of being unappreciated, burnout, stress, and further negative outcomes. This can be especially the case if the individuals perceive a lack of reciprocity in terms of their prosocial efforts. Thus, it is recommended that future research incorporates and examines additional potential antecedent and outcome variables of PSJC, both positive and negative.

Sixth, my thesis focused solely on individual level PSJC behaviours, but it would be interesting to research how these behaviours play out at a team or group level. Is it possible to engage in PSJC collaboratively (Leana et al., 2009; McClelland et al., 2014)? How would these behaviours play out at the team level? How do individuals view others' PSJC behaviours? Are there any potential negative outcomes of prosocial behaviours in terms of co-worker impact? Is it possible that the behaviour is only 'prosocial' in the eye of the beholder? As an example, is it possible that one's prosocial behaviour might be viewed as a form of impression management by others?

Seventh, I recommend for future research to investigate the connection between the three dimensions of PSJC in a longitudinal or time-lagged design. What are the underlying mechanisms between three dimensions? Is perhaps engaging in CPSJC an important prior step of TPSJC?

Finally, the current PhD research focussed on prosocial behaviours and their predictors and outcomes in an organizational context. Thus, the wider societal benefits of these specific POBs were not examined. I recommend for future research to think broader, and consider the wider societal benefits of prosocial behaviours (such as PSJC), that are external to the organization. According to Grant, Campbell, Chen, Cottone, Lapedis, and

Lee (2007), changing the relational boundaries of one's job can enhance motivational maintenance. In an experimental design the researchers provided employees with opportunities for contact with beneficiaries, and this in turn increased their persistence behaviour and job performance, measured at multiple time points. Based on these findings, I recommend for future research to consider measuring a wider range of outcomes for POBs that are not necessarily constrained to the organizational setting. Is it possible to 'carry over' the predictive power and the benefits (such as motivational maintenance) of a variety of POBs to contexts outside of the workplace?

6.5. Practical implications

Based on the findings regarding the influence of TPSJC and CPSJC on work engagement and TPSJC's influence on performance, there are clear opportunities and benefits for organizations, managers, and practitioners to learn more about applying and promoting PSJC in organizations. There are a number of potential ways to foster and encourage PSJC in organization, and managers and practitioners could explore different approaches. As Berg et al. (2013, p. 23) noted: "Is it best to encourage job crafting in one-on-one coaching situations? In group workshops? Through personally setting an example?"

One potential method for promoting PSJC is designing an organizational development intervention to train employees regarding their PSJC behaviours. Organizational interventions are planned actions or structured programs that are designed to solve or improve a problem, which in turn can enable an organization, managers, or employees to achieve a goal (Mikkelsen, 2005; Dainty, Daniels, Tregaskis & Waterson, 2017). Intervention as a form of experimental method is "an invaluable resource for building, refining, accumulating, and applying knowledge about organizational life" (Grant & Wall, 2009, p. 654). Interventions allow organizational researchers to

investigate causal inferences through determining the cause and effect, while being able to rule out alternative explanations (Daniels, Gedikli, Watson, Semkina, & Vaughn, 2017).

There have been a number of studies published on job crafting interventions (e.g., Van den Heuvel, Demerouti, & Peeters, 2012; Van Wingerden, Bakker & Derks, 2016). According to Demerouti and Bakker (2011), the aim of these job crafting interventions is to educate employees on how to improve the fit between their job and their abilities, needs, and passion. Improving their own work environment and person-job fit may in turn result in better well-being, engagement, and performance. Although these studies framed their approach using the JD-R conceptualization of job crafting (Tims & Bakker, 2010), some of them (e.g., Van Wingerden, Bakker & Derks, 2017) build on the Michigan Job Crafting Exercise (JCE) developed by Berg, Wrzesniewski, Dutton, and Baker (2008), but changed it to fit the principles of the JD-R conceptualization (Tims & Bakker, 2010). The researchers describe JCE as “a tool that helps people identify opportunities to make their jobs more engaging and fulfilling” (Berg, Dutton, & Wrzesniewski, 2010, p. 1.). To achieve this, JCE inspires individuals to look at their jobs through a new point of view, and visualize it in a more flexible manner, as changeable ‘building blocks’ instead of a rigid set of duties. Visualizing their jobs can also help employees pursue answers to a variety of questions regarding how and where they “allocate their time, energy, and attention between their day-to-day tasks and link these tasks with their motives, strengths, and passions in a fairly clear, concise, and simple manner” (Berg et al., 2010, p. 3.). As Wrzesniewski and Dutton (2001) noted, job crafting is largely about resourcefulness, and JCE helps to trigger this through generating creativity, innovative ideas, and positive ideas. Although there has been no peer-reviewed publication empirically investigating the JCE in its original format, as mentioned above, some job crafting interventions used

some ideas of the exercise as the base of the trainings used (e.g., Van Wingerden et al., 2017).

Job crafting intervention studies aim to enhance the participants' understanding and awareness regarding their job design and work environment, and encourage participants to assess the level and balance of their job demands and job resources. Some of these studies were able to demonstrate that a job crafting intervention in a form of a training can intensify and/or adapt the job crafting behaviours of the participating employees (Van Wingerden, Bakker & Derks, 2017). As an example, Van den Heuvel et al. (2012) found that the job crafting intervention designed by the researcher encouraged the participating employees to adjust their job demands and job resources. Moreover, a qualitative study on job crafting interventions showed that participants became more aware of their job crafting activities as a result of the intervention, and realized the importance of these activities (Van Wingerden, Derks, Bakker, & Dorenbosch, 2013). However, most research on job crafting interventions, with the exception of a few studies (e.g., Van Wingerden, Bakker & Derks, 2017), have not considered time as a key factor, and did not investigate whether the effect of the intervention is sustainable over time. In their study Van Wingerden and colleagues (2017) built on the content of the JCE (Berg et al., 2008), and investigated the longitudinal impact of a crafting intervention by assessing individual level work engagement and performance at three time points, the last time point being 1 year after the intervention. The researchers used a quasi-experimental design with one control group and 75 teachers as participants. The intervention was conducted in three phases, with 9 weeks between the first and second measurement, and a much longer (1 year) time gap between the second and third measurement. Van Wingerden and colleagues (2017) found that the intervention significantly and positively impacted the participants' job crafting behaviours at both times 2 and 3, and also

positively influenced the self-report performance of the employees one year after the intervention. However, the researchers were not able to demonstrate a positive impact on work engagement 1 year after the intervention.

Although these findings are promising, they are not directly transferable to job crafting interventions adapting the framework of Wrzesniewski and Dutton (2001) due to the fundamental differences between the two theories, discussed in Chapter 2. However, future interventions targeting the PSJC behaviours of employees can build on the key aim of the previous intervention studies, namely teaching employees how to optimize their person-job fit and work environment (Demerouti & Bakker, 2011; Van Wingerden et al., 2017). However, rather than balancing their job demands and resource, a PSJC intervention could train employees on tools and techniques they can use to actively change the task, relational, and cognitive boundaries, and to identify opportunities for PSJC. When designing an intervention there are a number of factors and recommendations to be considered. In a recent review by Nielsen and Randall (2012), the researchers concluded that to enhance the success rate of an intervention, the managers and employees have to be actively involved in the intervention process, and not just as passive recipients. Although Nielsen and Randall (2012) focussed on interventions targeting health and well-being, the recommendation is also a crucial aspect of job crafting interventions, considering the proactive nature of these behaviours. Crafting interventions could be designed at an individual level, however according to Berg, Dutton, and Wrzesniewski (2010), collaborative crafting interventions could yield promising results as well. As Nielsen (2013, p. 1036.) noted: “employees engaged in participatory organizational interventions may get new perspectives on their working life and learn how they can collectively question existing working procedures and craft their jobs, not only to ensure their own goal and needs fulfilment, but also those of their

colleagues.” In addition to designing an intervention that allows the active participation of managers and employees, it is also important to consider the time frame and method of the intervention. Similarly to the intervention design of Van Wingerden et al. (2017), a longitudinal quasi-experimental design is recommended. A longitudinal design is essential in order to assess the sustainability of the intervention outcomes, and to reduce the risk of method bias (Podsakoff et al., 2003). Furthermore, a quasi-experimental design can enable causal inferences, and overall provide higher internal and external validity for the findings. According to Grant and Wall (2009) there are a number of benefits for implementing a quasi-experimental design. The researchers identified five key benefits: “(a) strengthening causal inference when random assignment and controlled manipulation are not possible or ethical; (b) building better theories of time and temporal progression; (c) minimizing ethical dilemmas of harm, inequity, paternalism, and deception; (d) facilitating collaboration with practitioners; and (e) using context to explain conflicting findings” (Grant & Wall, 2009, p. 653.).

In addition to recommending future research to design and assess a job crafting intervention specifically targeting the PSJC behaviours of employees, it is also recommended that organizations and managers consider the implications of PSJC. As Study 1b and Study 2 demonstrated, TPSJC has a positive relationship with both work engagement and performance, while CPSJC positively influences work engagement. Since PSJC has the capacity to affect positive individual outcomes, organizations and managers could consider fostering these behaviours. Designing jobs that allow some room for crafting could have a beneficial outcome for the employees, and in turn for the organization (Parker, 1998). A job that is standardized and highly restrictive will limit employees to create a better person-job fit for themselves and make positive changes (Berg, Dutton, & Wrzesniewski, 2008). Although CPSJC transpires at a cognitive level,

hence is still possible in jobs that lack flexibility, rigid jobs might be especially limiting for TPSJC which represents a form of behavioural crafting. As a practical recommendation, I would encourage both managers and practitioners to experiment with different ways of fostering the beneficial job crafting behaviours of employees. This could occur through open discussion with employees regarding the best route to implement their crafting behaviours, “creating a program of incremental goals to work toward a more ideal version of the job, scheduling check-up meetings to discuss the employee’s crafting progress, or setting aside time slots for pursuing crafting intentions” (Berg, Dutton, & Wrzesniewski, 2010, p. 24.).

6.6. Reflection

I started this journey over five years ago when I moved to Leeds from Hungary to complete an MSc in Organizational Psychology at Leeds University Business School, with the hope to start a PhD afterwards. I grew up in a family where both of my parents were academics (although in fields unrelated to Business and Psychology), and I have always found conducting research and teaching an inspiring and impactful career path.

During the MSc programme I was exposed to a range of prominent literature, and I was especially inspired by the work of Adam Grant on relational job design and prosociality, and the theory of job crafting. I was working in a large multinational organization for three years before I came to Leeds, and I kept thinking back how different my work experience could have been if I had more scope for both prosocial behaviours and job crafting. My future PhD supervisors personally introduced me to these influential ideas: Dr. Des Leach taught the lectures on job design and job crafting, and the work of Adam Grant was introduced to me by Dr. Matt Davis. When it came to choosing the topic for my PhD, I did not want to compromise and choose one of the two theories as

the sole focus of the research. I felt that there could be a real contribution made by fruitfully combining prosociality and job crafting. The support I have received from Des, Matt, and my MSc Dissertation supervisor Professor Chris Clegg at the early stages was invaluable. They gave me freedom to be creative, encouraged me throughout the PhD application process, and helped me gain confidence in myself and my ideas. I used the MSc Dissertation as an opportunity to somewhat pilot the idea of 'Prosocial Job Crafting', and received the award for Outstanding Dissertation from the Leeds University Business School. This achievement further solidified the value of my chosen topic, and I dived into the PhD journey with an optimistic mind-set. This optimism remained in the first year of the PhD when I had the time and freedom to read wide and narrow down the theoretical framework and methodology for my research, with the vital guidance of my two PhD supervisors. I also found time to complete a research placement with Enterprise Rent-A-Car, founded by the Leeds Social Sciences Institute (LSSI), and wrote up my research findings in the form of a report for the organization.

Following an all over positive first year, the second year of my PhD turned out to be a widely different experience. I underestimated the difficulties of securing organizational access, and I struggled to find a host organization for my study. In hindsight, I should have been more open minded and think 'outside the box' when considering suitable organizational contexts for the research. I did not want to compromise and I was overly relying on my previous work experience, being only open to considering similar industry settings. The second year mostly consisted of numerous unsuccessful attempts of securing access. I also had some negative experiences by being slightly 'led on' by organizations, who declined to host my project after weeks of ongoing conversations and promising meetings with the managers. The reasons for turning down the project were usually the same: the time commitment the research would require from

participants, and the managers' uneasiness regarding rating the performance of their individual employees (supervisor ratings of performance). I occupied myself with focusing on my development needs, attending trainings (e.g., various research method trainings), and conducting further reading. I also started to teach as a Teaching Assistant in my second year, and the enjoyment and distraction I got from the teaching activities helped me to cope with the stress. Moreover, I was the vice president of the DSS team (Doctoral Seminar Series), and with a group of peers, we organized relevant events for the LUBS PhD community. In hindsight, one of the important lessons of the PhD was to stop comparing my journey with the journey of others. I had to realize that everyone's PhD experience is different, and overcoming the difficulties I faced increased my resilience. Moreover, the 'waiting period' allowed me to develop a variety of my skills, and improve my future employability.

This stressful period would have been significantly worse without the support of my family, friends, supervisors, and colleagues. Finally, a conversation with my mother (who is a scholar of information technology and library science) helped to find a new direction for my project. She asked me: "Why don't you consider libraries? Librarians also have customers and have to interact with a range of people every day". The more I thought about her advice, the more I realized how interesting it would be to use libraries, and more specifically academic libraries as an organizational setting. I shared the idea with my supervisory team, and they immediately saw the potential in this novel and specific organizational setting. I am now very pleased to have completed my research in this context, and I believe that the outcome makes up for the struggles I experienced in my second year.

The third year of the PhD was a challenging and eventful period. I arranged and conducted the scale development study, and I managed to secure access to multiple

academic libraries, both in the UK and in Hungary. I arranged data collection from multiple samples, and I also dived into data analysis during the spring and summer of 2017. Throughout the third year I also continued with teaching as a TA, and I found it to be a nice break from the data collection and analysis. Gaining teaching experience was a crucial factor in my successful application for a 1-year, part-time (70%) Teaching Fellow position that started at the beginning of my fourth year. The new position involved a number of duties that were challenging at first, such as acting as a module leader for multiple MSc modules, designing and teaching lectures, and supervising students. As I was still a full-time student, I had to find time to continue working on my PhD, which at many occasions meant writing the thesis on the evenings and weekends. Although it was difficult to balance my time between PhD and teaching duties, I was very pleased to get this job opportunity as it allowed me to further develop a variety of my professional and personal skills. Moreover, this work experience was a key contributing factor to my successful application for my current full-time position at LUBS.

I presented the empirical studies of the thesis at a number of conferences and academic events (e.g., BPS DOP, BAM, EAWOP, IWP PECE), and I had the chance to interact with influential organizational scholars, and get feedback on the PhD research. At the most recent conference I have attended (BAM, 2018), I and the supervisory team won the best full paper award in the Organizational Psychology Track. This award was a crucial confidence booster and further confirmed the value of my PhD research. I am now looking forward to writing up the thesis in the form of journal articles, and I hope to have an impact on both job crafting theory and practitioners.

During my PhD journey I have learnt a lot about a range of topics within Organizational Behaviour and Organizational Psychology, about the research process and research methods, and last but not least, about myself. I am extremely grateful for the

support and encouragement of my PhD supervisors, my family, my friends, and colleagues throughout the ups and downs. I know that completing the PhD is just the start of my career as an academic, and I am excited to see what research and teaching opportunities I will come across in the future.

6.7. Conclusion

With the level of proactivity increasing in many job roles (Oldham & Fried, 2016), there is a need for additional research to be conducted investigating specific forms of job crafting. Although, the seminal paper of Wrzesniewski and Dutton was published in 2001, job crafting has received very little research attention in the next decade. From 2010 there has been a boom in research interest, however this increased attention was mainly dedicated to the ‘rival’ job crafting conceptualization (Tims & Bakker, 2010). Consequently, this trend limited the advancement of the original job crafting theory. Thus, there are still a number of unexplored areas and unanswered questions in the field of job crafting research.

In addition to the topic of proactivity at work, the investigation of prosocial organizational behaviours is also timely and relevant. The shift from a manufacturing to a service economy resulted in a large proportion of organizations having to put customers at the focus of their business operation. This together with the increased use of teams in organizations have resulted in a variety of new working relationships that the employees have to manage.

The aim of this study was to explore, better understand, and contribute to the field of job crafting and prosocial organizational behaviours. Through meeting the research objectives, my research offers a new research path for investigating more specific subsets of task, relational, and cognitive job crafting. The development of the new measure

allows future research studies to further investigate PSJC in different organizational contexts, and encourages scholars to develop theories and measures of more specific job crafting behaviours.

I hope that the several important findings and contributions that emerged as a result of my empirical studies will inspire and encourage future discussion about the underlying mechanisms for different forms of job crafting behaviours. The relevance of my research can be evaluated considering the contributions to theory and literature, and the set of practical implications outlined.

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APPENDICES

Appendix A: Ethical approval

Performance, Governance and Operations
 Research & Innovation Service
 Charles Thackrah Building
 101 Clarendon Road
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 Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Anna Virágos
 Management Division
 LUBS, University of Leeds
 Leeds, LS2 9JT

**ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee
 University of Leeds**

Dear Anna,

Title of study: Investigating job crafting from a prosocial perspective
Ethics reference: AREA 15-128 amendment Aug 2016

I am pleased to inform you that your amendment to the research application listed above has been reviewed by the Chair of the ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee and following receipt of your response to the Chair's initial comments, **I can confirm a favourable ethical opinion as of the date of this letter.**

Please notify the committee if you intend to make any further amendments to the original research as submitted at date of this approval as all changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited. There is a checklist listing examples of documents to be kept which is available at <http://ris.leeds.ac.uk/EthicsAudits>.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely
 Jennifer Blaikie

Senior Research Ethics Administrator, Research & Innovation Service
 On behalf of Dr Kahryn Hughes, Chair, [AREA Faculty Research Ethics Committee](#)

CC: Student's supervisor(s)

Appendix B: Questionnaire distributed on Amazon Mturk (Study 1a)

Thank you very much for taking part in my PhD research. I am looking at how people interact with each other at your workplace and the aim of this questionnaire is solely to get your opinion about the topic. It would be of great help if you could kindly take the time to complete this 12-minute questionnaire.

Participating in the study is voluntary and all your responses are anonymous and confidential. There are no risks or disadvantages for taking part in the research and you may stop the survey at any time. You will be rewarded with \$1 for completing the entire survey.

If you have any questions regarding the project or the questionnaire please contact me at: *a.viragos13@leeds.ac.uk*

If you would like to participate, please complete the following questions and hit continue.

*(Content marked with * not included in the actual questionnaire)*

**Screening questions:*

I am 18 years of age or older

Yes

No

I have read and understand the information above

Yes

No

I want to participate in this research and continue with the study

Yes

No

Are you currently working at least 20hours/week?

Yes

No

**If the answer was no to any of these four questions, the participants received the following message:*

Unfortunately, you are not eligible to participate at this time. Please return the HIT. Thank you for your interest!

**PSJCM*

Below you can find statements of particular behaviours that are about **the nature of your work tasks and interaction with others at work**. In the statements '*others*' refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment.

Please read each of the statements **carefully** and indicate that during the last 3 months to what extent have you voluntarily:

1. Taken on additional work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
2. Introduced new approaches to your work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
3. Changed some aspects of your existing work tasks to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
4. Prioritized work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
5. Managed your work tasks to create opportunities to help others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
6. Learned new things to benefit others at work	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
7. Developed yourself professionally to benefit others at work	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
8. Developed your capabilities to benefit others at work	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
9. Interacted with others to understand how you can benefit them	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
10. Offered informal advice to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
11. Developed friendships with others at work to benefit them	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
12. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

13. Helped others at work with work related personal matters (e.g., conflict with a colleague)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
14. Changed the range of people you interact with (e.g., people with different seniority levels, people from other departments) in order to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
15. Made an effort to spend more time with others at work in order to benefit them	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
16. Mentored a newcomer informally	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
17. Thought about the ways your work positively impacts others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
18. Reminded yourself about the positive differences your work can make to others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
19. Became more aware of the opportunities your work offers to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
20. Changed views on your work to see its importance for others.	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

Please provide some examples of any of the behaviours listed above:

--

Please think about your daily work, and indicate to what extent you agree with the statements listed below:	
1. I actively attack problems.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
2. Whenever something goes wrong, I search for a solution immediately.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
3. Whenever there is a chance to get actively involved, I take it.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
4. I take initiative immediately, even when others don't.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree

5. I use opportunities quickly in order to attain my goals.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
6. Usually I do more than I am asked to do.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
7. I am particularly good at realizing ideas.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree

**Job crafting Questionnaire*

<p>Employees are frequently presented with opportunities to make their work more engaging and fulfilling. These opportunities might be as simple as making subtle changes to your work tasks to increase your enjoyment, creating opportunities to connect with more people at work, or simply trying to view your job in a new way to make it more purposeful. While some jobs will provide more of these opportunities than others, there will be situations in all jobs where one can make subtle changes to make it more engaging and fulfilling. Please indicate the extent to which you engaged in the below listed behaviour or cognition on a scale from 1 (hardly ever) to 5 (very often).</p>	
1. Introduce new approaches to improve your work	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
2. Change the scope or types of tasks that you complete at work	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
3. Introduce new work tasks that better suit your skills or interests	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
4. Choose to take on additional tasks at work	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
5. Give preference to work tasks that suit your skills or interests	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
6. Think about how your job gives your life purpose	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
7. Remind yourself about the significance your work has for the success of the organisation	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
8. Remind yourself of the importance of your work for the broader community	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often

9. Think about the ways in which your work positively impacts your life	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
10. Reflect on the role your job has for your overall well-being	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
11. Make an effort to get to know people well at work	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
12. Organise or attend work related social functions	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
13. Organise special events in the workplace (e.g., celebrating a co-worker's birthday)	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
14. Choose to mentor new employees (officially or unofficially)	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often
15. Make friends with people at work who have similar skills or interests	1-Hardly ever, 2-Rarely, 3-Sometimes, 4-Often, 5-Very often

**OCB helping*

Please mark the one number for each statement that comes closest to reflecting your opinion about it on a scale from 1-5	
1. I help out others if they fall behind their work	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
2. I willingly share my expertise with others	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
3. I try to act like a peacemaker when others have disagreements	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
4. I take steps to try to prevent problems with other workers.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
5. I willingly help others who have work related problems.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
6. I touch base with others before initiating actions that might affect them.	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree

7. I encourage others when they are down	1-Strongly disagree, 2-Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree
--	--

**Manipulativeness*

Please indicate to what extent you agree with the statements listed below:	
1. I take advantage of others	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
2. I cheat to get ahead.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
3. I like to trick people into doing things for me.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
4. I deceive people.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
5. I have exploited others for my own gain.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree

**Demographics*

What is your age?

What is your gender?

Male

Female

What is your nationality?

In which employment sector do you work? (e.g., healthcare, government, manufacturing)

What is your job role/position?

How long have you been working in your current job role? E.g., 2 years 3 months, 0 year 2 months

Years

Months

To receive your credit, please:

1.) Create a **8-10 digit user code** with **at least 1 letter and 1 number**.

2.) Enter your new code **below AND on the original survey page on Mechanical Turk** (this is **REQUIRED** for payment credit).

Please enter your user code below:

(Don't forget to make a note of your code and enter it also on the original survey page of Mechanical Turk)

Thank you for your time! Now please click next to finish the survey!

Appendix C: Email to participants (Study 1b)

Dear University of YYY Library team,

My name is Anna Viragos and I am a PhD Researcher in the Leeds University Business School. I have always been fascinated with libraries as my mother was the director of a university library in Hungary, and growing up I spent a lot of time in this environment. Therefore, I decided to look at libraries in the frame of my PhD research.

I am conducting a study into helping and proactive behaviours at work and you are being contacted because the University of YYY Library agreed to take part in this research. By completing this 8 minute questionnaire, you will tremendously help with the success of my PhD project. In addition, I would like to conduct a very brief (5 minute) follow-up survey in 3 months.

The research has been approved by the Ethics Committee of the University of Leeds and it meets the strict ethical guidelines required by the British Psychological Society. All participation is voluntary and there is no obligation to take part. Your responses are anonymous and confidential. There are no right or wrong answers in the questionnaire; I am interested solely in your opinion. You can stop the survey at any point and you can ask me to remove your response up to 4 weeks after completing (until date). The responses at no point will be presented in such a way that the University of YYY Library may be identified, and only I will have access to the full data. The data will be used in my academic outputs: PhD thesis, publications.

As a thank you for participation, once you have completed the entire survey, you will have the opportunity to take part in a prize draw for one of five £20 shopping voucher. Furthermore, the research aims to benefit the participating organizations by providing information on the nature of helping behaviours and on how to facilitate these behaviours and support a more positive work environment.

If you have any questions regarding the project or the questionnaire please contact me at: a.viragos13@leeds.ac.uk.

Thank you in advance for taking part in this project,

Anna Viragos, Doctoral Researcher, Leeds University Business School

Questionnaire link:

Appendix D: Questionnaire used in Study 1b (Time 1)

Thank you very much for taking part in the first phase of my PhD research. It would be of great help if you could kindly take the time to complete this 8-minute questionnaire.

Participating in the study is voluntary and all your responses are anonymous and confidential. There are no risks or disadvantages for taking part in the research and you may stop the survey at any time.

If you would like to participate, please hit continue. If you do not wish to participate, please close the survey.

In the next section, you will be asked three short questions in order to generate a unique code. I won't be able to identify any participants based on this unique code (as I don't know your answers to the three questions), but it means that you can request for your data to be removed from the study if you wish, and I can join up your responses if you choose to participate in a future follow-up to this study.

Please indicate the day of the month you were born (e.g. 14).

Please indicate the first two letters of your town of birth (e.g. LE).

Please indicate the first two letters of your mother's first name (e.g. MA).

*PSJCM

Below you can find statements of particular behaviours that are about **the nature of your work tasks and interaction with others at work**. In the statements '*others*' refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment.

Please read each of the statements **carefully** and indicate that during the last 3 months to what extent have you voluntarily:

1. Taken on additional work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
2. Introduced new approaches to your work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
3. Prioritized work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
4. Managed your tasks to create opportunities to help others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

5. Offered informal advice to benefit others at work	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
6. Developed friendships with others at work to benefit them	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
7. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
8. Helped others at work with work related personal matters (e.g., conflict with a colleague)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
9. Thought about the ways your work positively impacts others.	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
10. Reminded yourself about the positive differences your work can make to others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
11. Became more aware of the opportunities your work offers to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
12. Changed your views on your work to see its importance for others.	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

**Work engagement*

<p>The following 9 statements are about how you feel at work. Please read each statement care-fully and decide if you ever feel this way about your job by crossing the number (from 1 to 7) that best describes how frequently you feel that way.</p> <p>1-Never 2-Almost Never (a few times a year or less) 3-Rarely (once a month or less) 4-Sometimes (a few times a month) 5-Often (once a week) 6-Very Often (more times a week) 7-Always (every day)</p>	
1. At my work, I feel bursting with energy.	1 2 3 4 5 6 7
2. At my job, I feel strong and vigorous.	1 2 3 4 5 6 7
3. I am enthusiastic about my job.	1 2 3 4 5 6 7
4. My job inspires me.	1 2 3 4 5 6 7
5. When I get up in the morning, I feel like going to work.	1 2 3 4 5 6 7
6. I feel happy when I am working intensely.	1 2 3 4 5 6 7
7. I am proud of the work that I do.	1 2 3 4 5 6 7
8. I am immersed in my work.	1 2 3 4 5 6 7
9. I get carried away when I am working.	1 2 3 4 5 6 7

What is your age?

What is your gender?

Male

Female

What is your job role/position?

**How long have you been working in your current job role? E.g., 2 years 3 months,
0 year 2 months**

Years

Months

**If you would like to enter the prize draw for 5x£20 shopping vouchers, then please
click on this link.**

**→Please enter your email address so I can inform you in case you are the winner
of one of the five £20 shopping vouchers. At no point will the data be presented in
such a way that any individual may be identified. Once done, please click the
FINISH button.**

Thank you for your participation!

Appendix E: Questionnaire used in Study 1b (Time 2)

Thank you very much for taking part in the second phase of my PhD research. It would be of great help if you could kindly take the time to complete this 5-minute questionnaire.

Participating in the study is voluntary and all your responses are anonymous and confidential. There are no risks or disadvantages for taking part in the research and you may stop the survey at any time.

If you would like to participate, please hit continue. If you do not wish to participate, please close the survey.

In the next section, you will be asked three short questions in order to generate a unique code. I won't be able to identify any participants based on this unique code (as I don't know your answers to the three questions), but it means that you can request for your data to be removed from the study if you wish, and I can join up your responses with the previous study (3 months ago).

Please indicate the day of the month you were born (e.g. 14).

Please indicate the first two letters of your town of birth (e.g. LE).

Please indicate the first two letters of your mother's first name (e.g. MA).

The following 9 statements are about how you feel at work. Please read each statement care-fully and decide if you ever feel this way about your job by crossing the number (from 1 to 7) that best describes how frequently you feel that way.

- 1-Never
- 2-Almost Never (a few times a year or less)
- 3-Rarely (once a month or less)
- 4-Sometimes (a few times a month)
- 5-Often (once a week)
- 6-Very Often (more times a week)
- 7-Always (every day)

1. At my work, I feel bursting with energy.	1	2	3	4	5	6	7
2. At my job, I feel strong and vigorous.	1	2	3	4	5	6	7
3. I am enthusiastic about my job.	1	2	3	4	5	6	7
4. My job inspires me.	1	2	3	4	5	6	7
5. When I get up in the morning, I feel like going to work.	1	2	3	4	5	6	7
6. I feel happy when I am working intensely.	1	2	3	4	5	6	7
7. I am proud of the work that I do.	1	2	3	4	5	6	7
8. I am immersed in my work.	1	2	3	4	5	6	7
9. I get carried away when I am working.	1	2	3	4	5	6	7

If you would like to enter the prize draw for 5x£20 shopping vouchers, then please click on this link.

→Please enter your email address so I can inform you in case you are the winner of one of the five £20 shopping vouchers. At no point will the data be presented in such a way that any individual may be identified. Once done, please click the FINISH button.

Thank you for your participation!

Appendix F: English version of the email sent to participants of Study 2

Dear *Name*,

My name is Anna Viragos and I am a Doctoral Researcher at Leeds University Business School. I am conducting research into helping and proactive behaviours at work and you are being contacted because your employer agreed to take part in this research. By completing this 12 minute questionnaire, you will tremendously help with the success of my PhD project.

Please read the attached information sheet carefully that provides more information about the study. If you are happy to participate in my research, please open the link below to complete the questionnaire.

As a thank you for participation, once you have completed the entire survey, you will have the opportunity to take part in a prize draw for one of five 5000HUF shopping voucher.

Questionnaire link:

https://www.qualtrics.com/*individual_links*

Appendix G: English version of the Information sheet used in Study 2

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the project?

The purpose of the project is to support my PhD research with data regarding how employees engage in prosocial and proactive behaviours at their workplace. The aim of this questionnaire is to get your feedback and opinion about helping and proactive behaviours, and about what factors can influence these behaviours.

Why have I been chosen?

You have been chosen because your organization agreed to take part in this research project and employees of your organization receive this questionnaire link.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you can proceed to complete the online questionnaire on the link in the email you have received from me, including this information sheet. You can still withdraw at any time up to 4 weeks from the survey completion (until 31/12/2016). You do not have to give a reason.

What do I have to do?

The participants will be asked to complete a 12 minute long online questionnaire. The questionnaire is about helping and proactive behaviours at work, and about some factors that might influence these behaviours. I am interested in what the participants think about these behaviours, and what the most common forms of these behaviours are. I will then match the responses to performance ratings provided by your supervisor from the library you work in. The aim of collecting performance information is to demonstrate how a supportive and helpful work environment can benefit both the organization and the employees who work there. I am not interested in individual level performance as such, and at no point will the data be presented in such a way that any individuals could be identified. I am looking at very specific behaviours which are a small part of the overall job, and I would like to see whether these behaviours are actually contributing to positive outcomes. In addition, I would like to find out whether these specific type of behaviours are noticeable by the managers/peers and to see whether or not managers pick up on these behaviours. Please note, all your responses are confidential and anonymous, and your supervisors and your organization will not have access to your questionnaire responses.

The data will at no point will be presented in such a way that any individuals may be identified.

What are the possible disadvantages and risks of taking part?

There are no potential physical, emotional and financial risks for research participants. There is no risk for distress or discomfort.

What are the possible benefits of taking part?

The participants who complete the entire survey will be entered into a prize draw for 5x 5x5000 HUF shopping voucher. Additionally, it is hoped that this work will provide an opportunity for the participants to reflect on behaviours at work.

Furthermore, the research aims to benefit the participating organizations by providing information on the nature of helping behaviours and on how to facilitate these behaviours and support a more positive work environment.

Will my taking part in this project be kept confidential?

All the information that I collect about you during the course of the research will be kept strictly confidential. You will not be identified in any reports or publications. Only I will have access to the individual survey responses. The data collected during the course of the project will be aggregated, analysed, and the results will be used for academic outputs, and presented in the form of a PhD thesis, journal publications and conference presentations.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

I am interested in your opinion regarding helping and proactive behaviours in your specific job role. Additionally, the researcher would like to know how you perceive the social aspect of your work environment.

Who is organising/ funding the research?

The current research is not a funded research. It is organized in the frame of a PhD project by a Doctoral Researcher from Leeds University Business School.

Contact for further information

Lead researcher: Anna Viragos

Email: a.viragos13@leeds.ac.uk

Academic Supervisor: Dr. Desmond Leach

Email: D.J.Leach@lubs.leeds.ac.uk

I would like to thank you for taking the time and participating in this research project. Your participation is greatly appreciated.

Appendix H: Questionnaire used in Study 2 (English version)

Dear Participant,

Thank you very much for taking part in this study and for supporting my PhD research. It would be of great help if you could kindly take the time to complete this 12-minute questionnaire about proactive and prosocial workplace behaviours.

As I noted in my email, the participation in the study is voluntary, and all your responses are confidential. If you read the content of the email and the attached information sheet carefully and you are happy to participate in my research, please proceed to complete the questionnaire. If you do not wish to participate in my research, please close the questionnaire. You can still decide that you do not wish to participate in my research after completing the survey. You can request your responses to be removed from the dataset until the 31st of December.

If you have any questions please don't hesitate to get in touch: a.viragos13@leeds.ac.uk.

Thank you for contributing to my research,
Virágos Anna, PhD student, Leeds University Business School

*PSJCM

<p>Below you can find statements of particular behaviours that are about the nature of your work tasks and interaction with others at work. In the statements '<i>others</i>' refer to the colleagues, co-workers, customers, clients, patients, students etc. you daily interact with based on the sector of job employment.</p> <p>Please read each of the statements carefully and indicate that during the last 3 months to what extent have you voluntarily:</p>	
1. Taken on additional work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
2. Introduced new approaches to your work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
3. Prioritized work tasks that benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
4. Managed your tasks to create opportunities to help others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

5. Offered informal advice to benefit others at work	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
6. Developed friendships with others at work to benefit them	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
7. Helped others at work with non-work related personal matters (e.g., conflict with a spouse)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
8. Helped others at work with work related personal matters (e.g., conflict with a colleague)	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
9. Thought about the ways your work positively impacts others.	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
10. Reminded yourself about the positive differences your work can make to others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
11. Became more aware of the opportunities your work offers to benefit others	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal
12. Changed your views on your work to see its importance for others.	1-Not at all, 2-Just a little, 3-A moderate amount, 4-Quite a lot, 5-A great deal

Please provide some examples of any of the behaviours listed above

--

**Prosocial motivation*

Why are you motivated to do your work?	
1. Because I care about benefiting others through my work	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
2. Because I want to help others through my work	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
3. Because I want to have positive impact on others	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
4. Because it is important to me to do good for others through my work	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree

**Autonomy*

Please mark the one number for each statement that comes closest to reflecting your opinion about it on a scale from 1-5.	
Do you have flexibility in the execution of your job?	1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Always
Can you decide for yourself how you go about doing your work?	1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Always
Can you participate in work-related decisions?	1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Always

**Prosocial job characteristics (contact, impact)*

Please mark the one number for each statement that comes closest to reflecting your opinion about it on a scale from 1-7!	
1. My job gives me the chance to make a significant positive difference in others' lives.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
2. My job frequently improves the lives of others.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
3. Quite a few people benefit from my job.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
4. My job allows frequent communication with the people who benefit from my work.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
5. My job allows me to interact with a variety of people who benefit from my work.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree
6. My job enables me to build close relationships with the people affected by my work.	1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4- Neither agree nor disagree, 5- Somewhat agree, 6-Agree, 7-Strongly agree

**Performance*

Please mark the one number for each statement that comes closest to reflecting your opinion about it on a scale from 1-5	
1. I adequately complete my assigned duties.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree

2. I fulfil the responsibilities that are specified in my job description	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
3. I perform the tasks that are expected of me	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
4. I meet the formal performance requirements of my job.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
5. I engage in activities that will directly affect my performance evaluation.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree

**Marker variable*

Please mark the one number for each statement that comes closest to reflecting your opinion about it on a scale from 1-5	
1. I always eat healthy meals during work days.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
2. I always exercise before or after work.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
3. I never smoke cigarettes on workdays	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree
4. I never eat unhealthy snacks between meals.	1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree

What is your age?

What is your gender?

Male

Female

How long have you been working in your current job role? E.g., 2 years 3 months, 0 year 2 months

Years

Months

Thank you for completing me survey!

Appendix I: Questionnaire used in Study 2 (Hungarian version)

Üdvözlöm,

Köszönöm szépen, hogy a részvételével segíti a kutatásomat, amely a munkahelyi kommunikációt és viselkedéseket vizsgálja. Nagyon hálás lennék, ha ennek a maximum 15 perces kérdőívnek a kitöltésével hozzájárulna a PhD tanulmányaim sikerességéhez.

Ahogy az emailemben is hangsúlyoztam, a válaszait szigorúan bizalmasan kezelem, és a részvétel önkéntes. Ha figyelmesen végigolvasta az emailben és a csatolmányban leírt részleteket és ezt követően beleegyezik a részvételbe, kérem haladjon tovább a kérdőív kitöltésével. Ha a részletek elolvasása után nem kívánja kitölteni a kérdőívet, akkor csak zárja be az internetes ablakot. A kérdőív kitöltése után is dönthet még úgy, hogy a válaszait szeretné a kutatási adatokból törölni. Ezt bármikor kérheti emailben december 31-ig.

Ha felmerül bármilyen kérdése, kérem lépjen velem kapcsolatba:
a.viragos13@leeds.ac.uk.

Előre is nagyon köszönöm a PhD kutatásomban való részvételét,
Anna Virágos, PhD hallgató, Leeds University Business School

Az alábbi állítások különböző önkéntes munkahelyi viselkedéseket írnak le. Az állításokban a ' mások ' kifejezés azon személyekre utal, akikkel Ön napi szinten kommunikál a munkahelyen . Például munkatársak, kollégák, felhasználók, olvasók, kutatók, érdeklődők. Kérem olvasson el minden állítást figyelmesen és jelölje meg, hogy az elmúlt 3 hónapban Ön milyen gyakran cselekedett az alábbi módokon:	
1. Magára vállalt plusz feladatokat, hogy jót tegyen másokkal.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
2. Új megközelítéseket alkalmazott a munkavégzésében, melyek mások hasznára váltak.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
3. Előnyben részesített olyan feladatokat, amelyek mások hasznára váltak.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
4. Munkafeledatait úgy intézte, hogy lehetőséget teremtsen mások segítésére.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
5. Informális tanácsot ajánlott, hogy mások javára válljon.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor

6. Barátságokat kötött a munkahelyen, hogy mások javára váljon.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
7. Segített másoknak nem munkajellegű személyes problémák esetén (pl. házastársi konfliktus).	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
8. Segített másoknak munkajellegű személyes problémák esetén (pl., konfliktus egy kollégával).	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
9. Gondolkodott azon, hogy munkája milyen pozitív hatással van másokra.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
10. Emlékeztette magát a pozitív változásokra, amelyeket a munkavégzése másoknak okoz.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
11. Felismerte a munkájában rejlő lehetőségeket, melyeken keresztül másoknak segíthet.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor
12. Megváltoztatta a munkájáról alkotott véleményét azért, hogy belátta annak fontosságát mások számára.	1-Egyáltalán nem, 2-Néha, 3-Mérsékelt mennyiségben, 4-Sokszor, 5-Nagyon sokszor

Önt mi motiválja a munkavégzésben?	
1. Az, hogy szívemen viselem, hogy a munkám mások számára is hasznosuljon.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
2. Az, hogy segíteni akarok másoknak a munkámmal.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
3. Az, hogy pozitív hatással akarok lenni másokra.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
4. Fontos nekem, hogy másokkal jól tegyek a munkámon keresztül.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire

	egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
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Kérem jelölje be minden állításnál azt az opciót, amely legközelebb áll az Ön véleményéhez:	
Van lehetősége rugalmasan eljárni feladatai végre hajtásában?	1-Soha, 2-Ritkan, 3-Valamikor, 4-Gyakran, 5-Mindig
Eldöntheti önállóan, hogyan végzi a munkáját?	1-Soha, 2-Ritkan, 3-Valamikor, 4-Gyakran, 5-Mindig
Részt vehet Ön a munkával kapcsolatos döntések meghozásában?	1-Soha, 2-Ritkan, 3-Valamikor, 4-Gyakran, 5-Mindig

Kérem jelölje be minden állításnál azt az opciót, amely legközelebb áll az Ön véleményéhez:	
1. Munkám lehetővé teszi, hogy másokra jelentős jótékony hatást gyakoroljak.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
2. A munkám gyakran javít mások életén.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
3. Munkám elég sok ember javára szolgál.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
4. A beosztásom gyakori eszmecserét tesz lehetővé olyanokkal, akik számára hasznosul a munkám.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
5. A beosztásom lehetővé teszi számomra, hogy kölcsönösen együttműködjem olyanokkal, akiknek a munkám javára szolgál.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek
6. A beosztásom lehetővé teszi számomra, hogy szoros együttműködést alakítsak ki azokkal, akiket érint a munkám.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Valamennyire nem értek egyet, 4-Közömbös, 5-Valamennyire egyetértek, 6-Egyetértek, 7-Teljesen egyetértek

Kérem jelölje be minden állításnál azt az opciót, amely legközelebb áll az Ön véleményéhez:	
1. Megfelelően végzem el a rám osztott feladatokat.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
2. Teljesítem a kötelességeimet, amelyek a munkaköri leírásomban szerepelnek	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
3. Elvégzem a feladatokat, amelyeket elvárnak tőlem.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
4. Teljesítményem megfelel a munkaköröm formális elvárásainak.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
5. Olyan tevékenységekben veszek részt, amelyek közvetlenül kihatnak a teljesítményértékelésemre	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek

Kérem jelölje be minden állításnál azt az opciót, amely legközelebb áll az Ön véleményéhez:	
1. Munkanapokon mindig egészségesen étkezek.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
2. Mindig sportolok munka előtt vagy után.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
3. Munkanapokon soha nem dohányzom.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek
4. Étkezések között nem szoktam nassolni.	1-Egyáltalán nem értek egyet, 2 -Nem értek egyet, 3-Közömbös, 4-Egyetértek, 5-Teljesen egyetértek

Mi az Ön kora?

Mi az Ön neme? Férfi Nő

Ön mióta dolgozik a jelenlegi munkakörében? Például: 1év 3 hónap

Év

Hónap

Nagyon szépen köszönöm a részvételét! Kérem kattintson a nyílra, hogy befejezze a kérdőívet.

Appendix J: Information sheet for supervisors

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the project?

The purpose of the project is to support my PhD research with data regarding how certain workplace behaviours influence the performance of employees. The aim is to get your honest opinion about the performance of specific employees at your team.

Why have I been chosen?

You have been chosen because your organization agreed to host my research project and you are the supervisor of some of the employees who took part in this research.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you can proceed to complete the table attached to the email that you have received from the researcher. You can still withdraw at any time up to 4 weeks from sending the table back to me. You do not have to give a reason.

What do I have to do?

You will be asked to rate the performance of particular employees of your team. I am not interested in their performance as such, my aim is to examine how certain behaviours might influence the performance of employees. Please note, all your responses are confidential and anonymous, and your subordinates/colleagues/organization will at no point have access to your responses and find out about your responses. The data will at no point will be presented in such a way that any individuals may be identified.

What are the possible disadvantages and risks of taking part?

There are no potential physical, emotional and financial risks for research participants. There is no risk for distress or discomfort.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating, it is hoped that this work will benefit the participating organizations providing information on the nature of helping and proactive behaviours and on how to facilitate these behaviours.

Will my taking part in this project be kept confidential?

All the information that the researcher collects about you during the course of the research and your responses will be kept strictly confidential. You will not be able to be identified in any reports or publications. The data collected during the course of the project will be used for academic outputs, for example the researcher's PhD thesis.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

The researcher is interested in your honest opinion regarding the performance of employees in your team.

Who is organising/ funding the research?

The current research is not a funded research. It is organized in the frame of a PhD project by a Doctoral Researcher from Leeds University Business School.

Contact for further information

Lead researcher: Anna Viragos
Email: a.viragos13@leeds.ac.uk

I would like to thank you for taking the time and participating in this research project. Your participation is greatly appreciated.

Appendix K: Email to supervisors

Thank you for taking the time to participate in my study. I am a PhD student at the Leeds University Business School, and I am conducting research into the subject of proactive and helping behaviours at work. By completing these ratings you will considerably help with the success of my PhD project.

The research meets the strict ethical guidelines required by the University of Leeds and of the British Psychological Society. All participation is voluntary and there is no obligation to take part. Your participation is anonymous and all your responses will be kept confidential. There are no right or wrong answers; I am interested solely in your honest opinion. Completing the ratings will take approximately 2 minutes/employee.

Please make sure to carefully read the information sheet attached to this email. If you consent to taking part in this research, please complete the attached rating table including the names of some of your subordinates. If you do not wish to take part, please ignore this email.

I would be extremely grateful if you would kindly take the time to help with my research. If you have any questions regarding the project or the questionnaire please contact me at: a.viragos13@leeds.ac.uk.

Thank you in advance for taking part in this project,

Anna Viragos, Doctoral Researcher, Leeds University Business School

Thinking about the overall performance of the person you are rating, please indicate how you would rate them relative to others in the same/similar jobs on a percentage basis.					
1 = bottom 10% and 9 = top 10%					
	Overall performance	Achievement of work goals	Ability to get along with others	Ability to get the task done on time	Quality of performance
Employee 1					
Employee 2					