

Tilburg University

Individual and contextual determinants of job crafting in healthcare professions

Ghazzawi, R.

Publication date:
2021

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):
Ghazzawi, R. (2021). *Individual and contextual determinants of job crafting in healthcare professions*.
Ridderprint.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Individual and Contextual Determinants of Job Crafting in Healthcare Professions



Rawan Ghazzawi

**Individual and Contextual Determinants of Job
Crafting in Healthcare Professions**

Rawan Ghazzawi

Individual and Contextual Determinants of Job Crafting in Healthcare Professions.

Proefschrift ter verkrijging van de graad van doctor aan Tilburg University

op gezag van de rector magnificus, prof. dr. W.B.H.J. van de Donk, in

het openbaar te verdedigen ten overstaan van een door het college voor

promoties aangewezen commissie in de Aula van de Universiteit op

maandag 13 december 2021 om 16.00 uur

door

Rawan Ghazzawi,

geboren te Beirut, Libanon

Promotor: prof. dr. K. Yagmur (Tilburg University)

Copromotores: dr. M. Bender (Tilburg University)

dr. L. Daouk-Öyry (American University of Beirut)

leden promotiecommissie: prof. dr. N. Baumann (University of Trier, Department Psychology)
prof. dr. T. Bipp (Heidelberg University, Psychology)
prof. dr. M.P.H. Born (Erasmus University Rotterdam, DPECS)
prof. dr. T.A.M. Kooij (Tilburg University)
prof. dr. K. Mueller (Osnabruck University, Institut für Psychologie)

ISBN: 978-94-6416-912-6

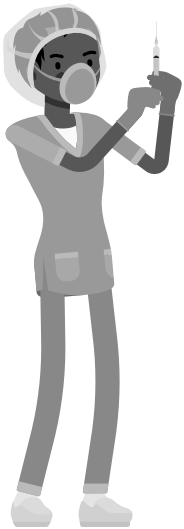
Printed by: Ridderprint

©2021 Rawan Ghazzawi, The Netherlands. All rights reserved. No parts of this thesis may be reproduced, stored in a retrieval system or transmitted in any form or by any means without permission of the author. Alle rechten voorbehouden. Niets uit deze uitgave mag worden vermenigvuldigd, in enige vorm of op enige wijze, zonder voorafgaande schriftelijke toestemming van de auteur.

Table of Contents

Chapter 1 Introduction	9
Chapter 2 Job Crafting and Subjective Well-being.....	31
Chapter 3 Job Crafting across Cultures.....	63
Chapter 4 Job Crafting and the Dual-motives System.....	105
Chapter 5 Discussion and Conclusions.....	141
Scientific Summary.....	193
Acknowledgements.....	199

Chapter 1| Introduction



Chapter 1

Introduction

Research has long focused on the influence that the job and its design have on employees, however, recently, the focus has shifted towards understanding how employees can influence their jobs. Driven by their needs and preferences, some employees tend to shape their jobs in order to create work environments that better fit with their motives; they engage in job crafting. Job crafting is defined as employee-initiated change behaviors that aim towards aligning their jobs with their own passions, motives, and preferences (Berg, Dutton, & Wrzesniewski, 2008; Wrzesniewski & Dutton, 2001). Research on job crafting provided a new exciting avenue that puts the employee at the front and center of job redesign. The concept of job crafting has even gained more popularity in the times of the pandemic, as remote working is prompting employees to reconsider their priorities on a daily basis and focus on their strengths and interests (Laker, Patel, Budhwar, & Malik, 2020).

One of the many industries that can benefit from job crafting is the healthcare industry as it has the biggest recovery to make. Even before the pandemic, healthcare professionals were being exposed to many job stressors that have negative effects on their mental and physical health and that decrease their work engagement and eventually the treatment outcomes they provide (Fiabane, Giorgi, Sguazzin, & Argentero, 2013). Ample evidence indicates that healthcare workers, especially nurses, have a higher risk than other professionals to develop burnout, depression, and anxiety (Laranjeira, 2012; Lim, Bogossian, & Ahern, 2010; Lindsay, Hanson, Taylor, & McBurney, 2008). Knowing that nurses represent the largest group of healthcare providers (Antoinette Bargagliotti, 2012), it is of key importance to look into strategies that can improve their work and personal wellbeing and job satisfaction through job crafting.

Ample research exists on the topic of job crafting (Lazazzara, Tims, & De Gennaro, 2020; Rudolph, Katz, Lavigne, & Zacher, 2017, provide a good overview), however, I was able to identify some gaps that I address in my dissertation. First, limited empirical research exists on the link between job crafting and creativity. Showing that job crafting is empirically linked to creativity, as an antecedent, solidifies the creative underpinning that job crafting has and expands our knowledge on its cognitive component that has received less attention in the literature (Hu, Taris, Dollard, & Schaufeli, 2020). Second, to my knowledge, the influence of job crafting on the employee's life satisfaction has never been investigated. This is not surprising, since job crafting is a type of work behavior the influence of which might be limited to the work life of the employee. However, job crafting is driven by needs and preferences that individuals have developed throughout their lives and their satisfaction through job crafting might influence the personal lives of employees. Third, no study has investigated the validity of the concept of job crafting in non-Western contexts. With its agentic underpinnings and focus on proactive behavior, job crafting might be unique to certain work environments that are not available in all contexts. This gap is not unique to job crafting as most of the psychological and motivational concepts have been developed in Western contexts and are adopted worldwide without validity considerations (Arnett, 2008). Finally, the relation between motivation and job crafting has a strong theoretical presence (Wrzesniewski & Dutton, 2001), but a weak empirical one that is limited to a handful of studies (e.g., Bipp & Demerouti, 2015). Although job crafting supports the motivational process of the job demand and resources model (JD-R; Bakker & Demerouti, 2007), the evidence linking it to motivation is still lacking.

In order to address the aforementioned gaps, the overarching aim of this dissertation is to investigate the individual and contextual determinants of job crafting among nurses working in hospital settings. I focus on three of job crafting's defining features that have been

either implied, assumed, or argued. First, Wrzesniewski and Dutton (2001) implied that job crafting is a set of creative work behaviors demonstrated by employees. Second, most of the research on job crafting has been done in western, educated, industrialized, rich, and democratic (WEIRD; Henrich, Heine, & Norenzayan, 2010) societies, and its universality has been so far assumed. Finally, job crafting has been argued to be sparked by motivation (Wrzesniewski & Dutton, 2001).

In the sections that follow, I will first introduce job crafting and its main conceptualizations. Then, I will discuss the Lebanese context in general, and that of the Lebanese healthcare and nursing as the context of my investigation. I will then elaborate more on the defining characteristics of job crafting as the themes of this dissertation along the lines of which the research aims of the studies were created.

What is Job Crafting?

Job crafting, which was first introduced by Wrzesniewski and Dutton (2001), is “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (Wrzesniewski & Dutton, 2001, p. 179). Employees can alter their task and relational boundaries and make changes that render their work experience more meaningful for them (Berg, Dutton, & Wrzesniewski, 2013). Wrzesniewski and Dutton (2001) proposed that employees craft their jobs driven by their needs to have a positive self-image, have more control, and to establish and maintain human connections. They divided job crafting into three dimensions: cognitive, structural (task), and relational crafting. Task crafting involves changing the number of tasks the employee engages in and the way he or she does so. Relational crafting involves altering the relational boundaries of one’s job by choosing whom he or she interacts with at work. Finally, cognitive crafting refers to changing the way one sees his or her role at work.

Tims and Bakker (2010) later used the job demands-resources (JD-R) model (Bakker & Demerouti, 2007; Bakker & Demerouti, 2017; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) to position the concept of job crafting theoretically and frame it. According to the JD-R model, job stress in various occupational settings can be associated with several risk factors that can be lumped under two main categories: job demands and job resources. Job demands includes the physical, psychological, social, or organizational elements of the job that require a lot of energy from the employees and are as a result linked to certain physiological and/or psychological costs. Job demands might turn into job stressors in cases where they deplete the energy of the employee who does not have enough internal or external resources to deal with them (Bakker & Demerouti, 2007). On the other hand, job resources refer to the physical, psychological, social, or organizational elements of the job that are instrumental to completing work tasks and for self-development. Accordingly, Tims and Bakker (2010) divided job crafting into three main dimensions that revolve around shaping job demands and job resources: (1) increasing job resources, (2) increasing job demands, and (3) decreasing job demands at work. Increasing job resources mainly involves mobilizing the social resources that employees have at work. Increasing job demands involves employees increasing the number of tasks that they have at work in a way that creates a more challenging work environment and that allows them to use their skills effectively. Finally, decreasing the level of job demands refers to decreasing the level of demands that exceed the capabilities of employees and that as a result might cause feelings of helplessness and frustration. Although the dimensions above do not include the cognitive element suggested by (Wrzesniewski & Dutton, 2001), they are aligned with the other two dimensions proposed by them that involve shaping one's rational and structural work boundaries.

In aim to operationalize the dimensions of job crafting and be able to measure this work behavior, Tims, Bakker, and Derks (2012) developed the job crafting scale that includes

four main dimensions: (1) increasing social job resources, (2) increasing structural job resources, (3) increasing challenging job demands, and (4) decreasing hindering demands. In the scale, increasing job resources was further divided into increasing social job resources and increasing structural job resources in order to capture the different resources that employees can use to shape their job. This operationalization of job crafting allows us to focus on the content of job crafting (job demands and job resources) and on the approaches that employees adopt while job crafting (increasing vs. decreasing). Throughout the studies in my dissertation, I adopt the four-dimensional model of job crafting as it is the most widely used one in research on job crafting (Lazazzara et al., 2020).

The Non-WEIRD Context of the Dissertation

In celebration of the anniversary of the Journal of Applied Psychology, Gelfand, Aycan, Erez, and Leung (2017) investigated how the science of cross-cultural industrial/organizational psychology and organizational behavior has evolved over the past 100 years. They found that from 1917 to 2014, out of the 9419 papers published in JAP, there was only 102 papers that explicitly considered cultural variation, and an additional 50 papers that included non-American samples, but that do not consider the variable of culture. Such a finding shows how the influence of culture is not considered as much as it should be in organizational psychology.

Research on job crafting has seen a lot of growth over the past two decades, however it has been restricted by the borders of the Western world. Recent meta-analyses are proof that the majority of the studies conducted on the topic of job crafting have been done in Western contexts using Western samples (e.g., Lazazzara et al., 2020; Rudolph et al., 2017). Western countries differ in many fundamental ways like income, education, health, and cultural conditions from majority of the world (Arnett, 2008). Such differences might have an

influence on the psychological phenomena being studied (Thalmayer, Toscanelli, & Arnett, 2020). Although we have gained a lot of information about job crafting, we know very little about its cross-cultural validity as a construct, since no study has investigated its validity using a culture-comparative research design. This is particularly important, since by doing so we make sure that we reach valid conclusions about cross-cultural differences in job crafting and eliminate the influence of bias.

A lot of reviews and studies have cautioned against the over generalization of research findings that are based on limited non-representative samples (e.g., Arnett, 2008; Thalmayer et al., 2020). Although the consideration of culture increased in some domains such as social, personality, and developmental psychology (van de Vijver, 2013), its consideration in other domains is still lagging. In general, there is a need to adopt a more culture-informed, non-WEIRD, and methodologically sound theorizing and assessment in psychology. Exploring a certain construct in a cross-cultural manner allows researchers to establish the validity of the tool being used and the construct it measures (van de Vijver & Tanzer, 2004). This would allow them to rule out findings that are due to bias, which is the systematic errors in measurement that jeopardizes the validity of cross-cultural research (Boer, Hanke, & He, 2018; van de Vijver & Leung, 1997, 2000; Van de Vijver & Poortinga, 1997).

The Lebanese Healthcare Context

The three separate samples included in this dissertation are collected from Lebanese nurses working in hospitals. Lebanon is a Middle Eastern country that is part of the Levant region. Lebanon's history is characterized by colonization, invasion, and civil wars (Salibi, 2003), which added to its already multi-ethnic composition. The Lebanese context is characterized by collectivism, high power distance, and low tolerance to norm violations

(Hofstede, Hofstede, & Minkov, 2010). Recently, the United Nations Economic and Social Commission for Western Asia (ESCWA) stated that more than 55 % of the Lebanese population live in poverty and struggle to get access to necessities (ESCWA, 2020). Recent data indicates that Lebanon currently suffers from a whopping 40% unemployment rate and it is estimated that more 60% of the young people in Lebanon are unemployed (FAO, 2020).

Before the most recent crises that hit Lebanon (the Beirut port explosion on August 4th and the economic crisis), the biggest source of pressure on the Lebanese healthcare system was the influx of the Syrian refugees. An estimated 1.5 million Syrian refugees fled and currently reside in Lebanon making it the country with the highest per capita proportion of refugees in the world (UNHCR, 2021). Many of the Syrian refugees had serious health needs whether due to pre-existing chronic health conditions or to injuries caused by the war in Syria (Coutts et al., 2015; Maziak et al., 2007; Taleb et al., 2015). However, the Lebanese healthcare infrastructure was not ready to absorb the brunt of this crisis, which added more pressure on the already struggling healthcare workers especially the nursing group (Dumit & Honein-AbouHaidar, 2019).

Previous research has shown that approximately a fifth of Lebanese nurses migrate to other countries within two years of graduation (El-Jardali, Dumit, Jamal, & Mouro, 2008). Lebanese nurses are leaving Lebanon in search for better salaries and benefits, better work conditions, and more opportunities for professional development or career advancement. (Alameddine et al., 2020; El-Jardali et al., 2008). Nursing shortage is not a problem unique to Lebanon as it is a global phenomenon that is jeopardizing the quality and safety of healthcare delivery worldwide (Hongoro & McPake, 2004; Liang, Chen, Lee, & Huang, 2012). However, developing countries, such as Lebanon experience this nursing shortage more severely due to the compounding conditions in those countries.

The multitude of the characteristics mentioned above make Lebanon a context that is very different from those in which job crafting has been assessed (for an overview check, Rudolph et al., 2017). This makes exploring job crafting in the unique, non- WEIRD (Western, Educated, Industrialized, Rich, Democratic) (Henrich et al., 2010) context of Lebanon fruitful as it adds to our knowledge about the applicability and functionality of job crafting.

The Three Themes of the Dissertation

The themes of this dissertation are aligned with the main defining characteristics of job crafting. *First, job crafting is a set of creative work behaviors that employees engage in at work (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001).* Creativity has been accompanying the definition of job crafting ever since the concept's inception. *Second, job crafting is sparked by motivation.* Wrzesniewski and Dutton (2001) argued that job crafting has three main motives: the need to have control over one's work, the need to have a positive self-image, and the need to establish and maintain human relations at work (Wrzesniewski & Dutton, 2001). When employees engage in job crafting, they would be satisfying basic needs and motives and in turn achieving positive work outcomes (Demerouti & Bakker, 2014; Wang, Demerouti, & Bakker, 2017). *Finally, job crafting is a Western concept that is assumed to be universal.* Job crafting adopts an agentic view of employees as it describes them as active crafters who shape their jobs in order to make them better matching with their own passions and interests (Tims & Bakker, 2010; Tims et al., 2012; Wrzesniewski & Dutton, 2001). Recent meta-analyses show that the majority of the studies that investigate job crafting, do so while assuming the universality of its structure and functionality (see, Lazazzara et al., 2020; Lichtenthaler & Fischbach, 2019; Rudolph et al., 2017).

I will first discuss each of the defining characteristics of job crafting mentioned above in more detail and then move to the research questions that I address in my dissertation. The overarching aim of the dissertation is to investigate the defining features of job crafting in more details in order to learn more about it and its functionality.

Job Crafting is a Set of Creative Work Behaviors Employees Engage in at Work.

Creativity is the generation of original and practical ideas by individuals or group members working together (Amabile, 1988). In the organizational context, creativity refers to “coming up with fresh ideas for changing products, services, and processes so as to better achieve the organization’s goals” (Amabile, Barsade, Mueller, & Staw, 2005, p. 367) and has been touted as a key to enduring advantage. Creativity has two main elements: one that is cognitive and that involves the generation of ideas and solutions to problems and another that is the actual idea or solution (Amabile, 1983; Weisberg, 1988). Creativity has been frequently used to define job crafting since the latter is believed to be a set of creative actions demonstrated by employees at work (Wrzesniewski & Dutton, 2001). Originally, Wrzesniewski and Dutton (2001) claimed that their job crafting framework posits that all employees are potential job crafters. They added that it should not be assumed that all employees should engage in job crafting, and that those who have enough freedom and exhibit the creativity needed to shape their jobs to ways that are different from their formally specified components, do so. Both creativity and job crafting start at the cognitive level, require prior planning, and result in new and useful outcomes that facilitate problem solving (Shalley, Zhou, & Oldham, 2004). The relationship between job crafting and creativity, as an antecedent, has never been empirically investigated. In most of the studies exploring job crafting and creativity, the latter is typically explored as an outcome variable. For example, Demerouti, Bakker, and Gevers (2015) found a positive relationship between crafting job resources and flourishing in life, which referred to the combination of affective wellbeing and

behavioral wellbeing (Diener et al., 2010; Keyes, 2002) and consequently an increase in supervisor-rated creativity (as an outcome variable) levels at work. As another example, in their study, van de Riet, Le Blanc, and Oerlemans (2015) provided evidence supporting the role of job crafting as a partial mediator between employees' psychological capital and creativity which was also explored as an outcome variable. It is important to empirically show that creativity is one of the antecedents of job crafting, since only by doing so, we can place creativity as one of the defining components of job crafting.

Job crafting is a WEIRD Concept that is Assumed to be Universal

Job crafting is by definition an agentic and individualistic work construct. Much of the conceptualization, theorizing, and operationalization of job crafting has been done in Western, educated, industrialized, rich, and democratic societies (WEIRD) (Henrich et al., 2010). Employees who engage in job crafting are usually fully aware of their needs and preferences and accordingly shape their jobs in order to make them better matching with those needs and preferences (Wrzesniewski & Dutton, 2001). In Western cultures, the socialization goal revolves around developing an individual sense of identity and self-sufficiency (Triandis, 1995). This serves as a foundation for preparing employees to make decisions about various issues, including work objectives and how they execute their job (Hill, 1998). Most of the contexts in which job crafting have been explored have been "loose": they do not have very strong norms and tolerate deviant behavior (Gelfand et al., 2011). In such contexts, there is a predominance of weak everyday situations where there are few restrictions on individuals and there is a wide range of behavioral options that individuals can choose from (Price & Bouffard, 1974). Such looseness and the prevalence of weak situations create a rich environment for individual discretion at work such as job crafting. However, such looseness is not equally present in all cultures, which might influence the engagement in job crafting.

A few job crafting studies have been conducted, to a limited extent, in non-WEIRD samples. Emamizadeh and Beveridge (2018) conducted a qualitative study that examined the effects of generational differences and national culture on JC using working samples from Iran and China. According to this study, job crafting activities go against values and beliefs that are at the core of the Iranian and Chinese culture, such as loyalty to the family, and the importance of relationship building. Gordon, Demerouti, Le Blanc, and Bipp (2015) also conducted a multi-sample study (US and the Netherlands), and found that, in line with the masculine versus feminine distinction, job demands were higher in the US and job resources were higher in the Netherlands. Two further studies explored the concept of JC in South Africa, a non-WEIRD context (see Bell & Njoli, 2016; De Beer, Tims, & Bakker, 2016), but researchers did not specifically mention the cultural context and its relation to their results. All these studies, even those that considered the element of culture, used scales developed and validated in Western contexts without considering whether they function in the same manner across cultural groups and how culture might foster or hinder the expression of job crafting behaviors. It is crucial to investigate the legitimacy of this universality and determine if it is one of the components of job crafting.

Job Crafting is Sparked by Motivation

Employers have long strived to create jobs with motivating potential and search for ways to help their employees accommodate the mismatch between their motives, needs, and preferences, and their jobs (Hackman & Oldham, 1976). Before the introduction of job crafting, the focus of research was mainly on the job and on ways to make it more engaging for the employee. Trying to influence employee motivation levels through his or her job, also guided the development of famous work redesign theories like the Herzberg Motivation-hygiene theory of satisfaction and motivation (Herzberg, Mausner, & Snyderman, 1959) and Vroom's expectancy theory (Vroom, 1964). Job crafting represents an introduction of a new

perspective on work redesign that is a bottom-up strategy initiated by the employees (Tims & Bakker, 2010). This indicates that a multitude of job redesigns can be created, in response to the idiosyncratic characteristics that employees might have without having to involve the employer (Berings, De Fruyt, & Bouwen, 2004). Job crafting complements theories of job redesign but reverses the direction of the relationship between motivation and work and puts employees “in the driver’s seat” in generating meaningfulness in their work (Berg et al., 2013). Employee motivation has been shown to be effective for eliciting job crafting (Kooij, Tims, & Akkermans, 2017; Wrzesniewski & Dutton, 2001).

Some studies have explored intrinsic motivation as an antecedent of job crafting. For example, Slemp and Vella-Brodrick (2014) investigated the relationship between job crafting and the three basic psychological needs for autonomy, competence, and relatedness based on the self-determination theory (SDT; Deci & Ryan, 1985). Their results indicated that engaging in job crafting predicted need satisfaction, which in turn predicted employee personal and work well-being. Additionally, in their study, Bipp and Demerouti (2015), related job crafting to approach and avoidance temperaments based on the model of approach and avoidance temperament (AAT; Elliot & Thrash, 2002; Elliot & Thrash, 2010). Their results indicated that employees scoring high on approach temperament seek resources and demands, while employees scoring high on avoidance temperament reduce hindering demands in the workplace. Individuals adopt approach and avoidance strategies to satisfy their motives. Some motives operate beyond the consciousness of individuals and might have an influence on job crafting behavior. According to the dual-motivational system (McClelland, 1985a, 1985b), implicit and explicit motives are two systems that operate separately, but together predict human behavior. Implicit motives predict spontaneous, long-term behavior, while explicit motives predict behavior that is planned and short-term (McClelland, Koestner, & Weinberger, 1989). Job crafting is arguable driven by basic needs

that individuals might not be able to consciously access and have a better representation in their unconsciousness. In order to better understand how conscious and unconscious motives are linked to job crafting separately and together, we adopt the dual-systems approach to motivation. Evidence shows that taking implicit and explicit motivational system into consideration helps us better understand individual actions and behavior (Sorrentino & Higgins, 1986; Winter, 1996).

Research Questions

RQ1: *Is job crafting empirically related to creativity?*

In Chapter 2, I address the first defining characteristic of job crafting, which is that *job crafting is a set of creative work behaviors that employees engage in at work*. Chapter 2 is a cross-sectional study examining the relationship between creativity, job autonomy, personality in the Arab world and job crafting in sample of Lebanese nurses working in hospital settings. I also examine the role of job crafting in mediating the relationship between the antecedents and a non-work-related outcome variable, subjective well-being. Even though creativity has been accompanying the definition of job crafting ever since its early development (see Wrzesniewski & Dutton, 2001), there is not much research investigating the relationship between creativity and job crafting, looking at creativity as an outcome (or antecedent) of job crafting (e.g., Demerouti et al., 2015; Gordon et al., 2015). The main aim of chapter 2 is to empirically test the relationship between job crafting and self-reported creativity as an antecedent. In this study, job autonomy is added as a contextual antecedent as it gives employees opportunities and information they need in order to adapt their jobs based on their own needs and abilities (Lyons, 2008; Tims, Bakker, & Derks, 2013). Job autonomy has been positively linked to personal initiative (Tornau & Frese, 2013) and to overall job crafting (Rudolph et al., 2017). In addition to being relevant to job crafting, job autonomy is

also important for the nursing profession as its lack predicts high burnout levels among healthcare workers (Bakker, Demerouti, & Euwema, 2005). Further, I investigate how personality in the Arab world is linked to job crafting as no study has explored how non-WEIRD personality facets related to job crafting. Finding relationships that are different than those indicated by previous research would serve as a prompt to investigate the universality and functionality of job crafting in non-WEIRD contexts. Moreover, I chose subjective well-being as an outcome variable in order to extend our knowledge about the benefits of job crafting as its influence on the employee's personal lives is still unknown. This is of particular importance since working conditions have been shown to influence overall life satisfaction (the primary indicator of subjective well-being) in general and among nurses (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Rice, 1984). I expect to find a strong positive relationship between creativity, job autonomy, personality, and job crafting and between job crafting and subjective well-being. Moreover, I expect job crafting to serve as a mechanism linking creativity, job autonomy and some personality facets to subjective well-being.

RQ2: *How WEIRD is job crafting?*

In chapter 3, I build on some of the findings in chapter 2 and address the second defining feature of job crafting, which is that it is a WEIRD concept that is assumed to be universal. For the purpose of this study, I have two main aims: one that is methodological and another that is theoretical. The methodological aim is to investigate the validity of the job crafting structure and scale developed by Tims et al. (2012) by testing for measurement invariance. The four-dimensional structure of job crafting and the scale that was developed accordingly originates from a WEIRD context and have so far been adopted without any consideration of its applicability in non-WEIRD contexts. This issue is not unique to job crafting as in most cases researchers assume the universality of their findings about

psychological and motivational constructs (Henrich et al., 2010). This can be problematic since the same concept might exist differently in different cultures, which makes its cross-cultural comparison invalid (van de Vijver & Leung, 1997, 2000). Individuals from different cultures might be expected to perceive and react differently to the world (Arnett, 2008; Thalmayer et al., 2020). In the case of job crafting, being a proactive work behavior that has employee agency at its core makes its universality questionable. Being an agent means intentionally influencing one's own environment and being a contributor to one's own circumstances, rather than being a mere product of them (Bandura, 2008). A lot of psychological theories equate agency with choice (for a review, check, Snibbe & Markus, 2005). Studies on the notion of choice suggest that perceptions of choice are socially constructed and as a result might differ from one cultural context to another (Kitayama, Snibbe, Markus, & Suzuki, 2004; Savani, Wadhwa, Uchida, Ding, & Naidu, 2015). Guided by this methodological aim, I design the study in a way that facilitates testing the universality of job crafting. Based on the recommendations regarding cross-cultural comparisons suggested by Leung and Van De Vijver (2008), I collect data from three countries that vary across cultural, historical, and social levels: Lebanon, India, and the United States. The United States is the context where job crafting originated from and is touted as one of the most individualistic societies worldwide (Hofstede, 1980). On the other hand, India and Lebanon are more collectivist cultures (Hofstede, 1980; Oyserman, Coon, & Kimmelmeier, 2002). The three countries provide an informative platform for testing the universality of job crafting. Testing if a measure is invariant across different cultures, provides some indication as to whether or not the construct it measures has the same elements and the respondents respond to the items that measure it similarly. The second aim of this study is to investigate the functionality if the invariant dimensions of job crafting across the three cultural contexts of the study. In order to do so, I test the relationship between the invariant dimensions of job

crafting and job satisfaction, which is a widely researched work outcome of job crafting (for a review check Rudolph et al., 2017). To better understand mechanism behind this relationship and since proactive behavior facilitates need satisfaction (Cangiano & Parker, 2016), I include the three basic needs outlined by the self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2011): the needs for autonomy, competence, and relatedness. These three needs align closely with the three main drivers of job crafting, which are respectively, the need to have control, the need to have a positive self, and the need to establish and main relationships at work (Slemp & Vella-Brodrick, 2014; Wrzesniewski & Dutton, 2001). In the context of work, a lot of evidence point towards the positive relations between need satisfaction and work-related well-being such as job satisfaction and work engagement (see Gagné & Deci, 2005; Van den Broeck, Vansteenkiste, & De Witte, 2008, for overviews). Taken all together, the second aim of this study allows me to determine if the invariant dimensions of job crafting are linked to job satisfaction through the satisfaction of the same basic needs. I expect the results to indicate that the job crafting dimensions are not invariant and have different functions across the three cultural contexts.

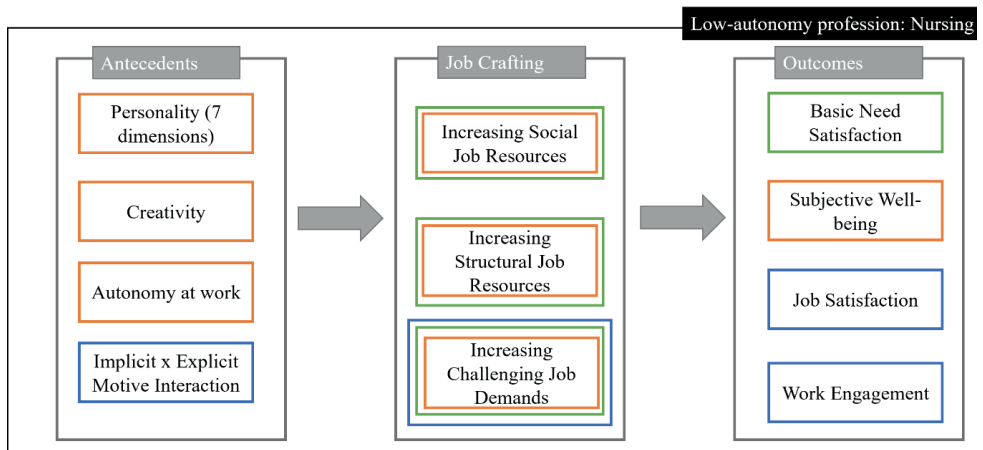
RQ3: *How are explicit and implicit motives related to job crafting?*

In chapter 4, I look at the implicit side of motivation and incorporate implicit measures of motivation to test its relationship with one of the approach dimensions of job crafting: increasing challenging job demands. A lot of evidence indicates that behavior is driven by processes that we are not aware of and implicit measures are needed in order to capture those processes (Uhlmann et al., 2012). For this purpose, in chapter 4, I incorporate the McClelland (1985a)'s dual-motivational system into the theory of job crafting in aim to strengthen job crafting's role in the motivational process of the JD-R model. To facilitate the close examination of the relationship between job crafting and implicit and explicit motives, I focus on one job crafting dimension, which is increasing challenging demands. This

dimension has the most motivational relevance as challenging tasks promise the satisfaction of needs and achievement of set goals once employees choose to use their energy and effort to do them (Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). Moreover, challenge? stressors such as challenging job demands are linked to high motivation as employees as it is linked to the belief that the effort done to cope with those demands will allow them to meet those demands (LePine, Podsakoff, & LePine, 2005). The relationship between challenging job demands and problem-solving coping indicates the presence of explicit and implicit motive enactment that facilitates such coping and emotional integration. For this purpose, I investigate the role that implicit self-regulated and explicit integrative power motivation and their interaction as antecedents of increasing challenging job demands. Both motive facets represent the mature enactment of the power motivation at the explicit and implicit level, which involves dealing with negative emotions, coping with difficulties, and staying calm in face of opposition (Baumann & Kuhl, 2020; Kuhl & Scheffer, 1999; Winter, 1991). I investigate the role that explicit (conscious) and implicit (unconscious) motives have separately and together on increasing challenging demands. I also investigate how this relationship influences work engagement and job satisfaction among nurses. Research suggests that implicit and explicit motives are statistically unrelated (Baumann, Kaschel, & Kuhl, 2005; Hofer, Busch, Bond, Li, & Law, 2010), however they function in parallel and can also be aligned/congruent (McClelland et al., 1989). I focus on their alignment or congruence as explicit and implicit motive congruence facilitates the experience of positive affect as a result of seeking goals that have emotional relevance to the individual (Brunstein, Schultheiss, & Grässman, 1998). This in turn promotes proactive behavior, which is job crafting in this case. Using a self-report tool to measure explicit integrative power motivation and a reflective tool to measure implicit self-regulated power motivation, I set out to investigate the motivational story behind the approach dimension of job crafting: increasing

challenging job demands. I expect to find a positive relationship between explicit integrative power motivation and increasing challenging job demands that becomes stronger when implicit self-regulated power motivation is high (motive congruence). Moreover, I expect this relationship to be linked to positive work outcomes namely, work engagement and job satisfaction.

To conclude, this dissertation investigates the contextual and individual determinants of job crafting. I do so in the healthcare context among a sample of Lebanese nurses in order to investigate the benefits of job crafting in such work environments. The dissertation constitutes of three separate empirical studies that are all cross sectional, with one being cross-cultural (Lebanon, India, and the US) as well. The model below (Figure 1) outlines the relationship each study in each chapter tests. The variables that I consider in each study are bordered by a common color for more clarity. The main aim of this dissertation is to empirically support the defining characteristics of job crafting and investigate its relation to creativity and motivation, in addition to its universality. I hope that the findings of the studies improve the work and personal wellbeing of nurses and as a result, the quality of patient care that they provide. The specific details of the relationships tested are provided in each chapter.



Dissertation Model

Note. The variables outlined in orange, green, and blue, belong to chapters 2, 3, and 4 respectively.

Chapter 2| Job Crafting and Subjective Well-being



This chapter is largely based on:

Ghazzawi, R., Bender, M., Daouk-Öyry, L., van de Vijver, F. J., & Chasiotis, A. (2021). Job crafting mediates the relation between creativity, personality, job autonomy and well-being in Lebanese nurses. *Journal of Nursing Management*.

Chapter 2

Job Crafting Mediates the Relation between Creativity, Personality, Job Autonomy and Well-being in Lebanese Nurses

Strategies that enhance work engagement and prevent burnout are essential for improving nursing working conditions (Laschinger, Wong, & Greco, 2006). One such strategy is job crafting, which represents employee-initiated work behaviors aimed at achieving a better fit between the employees' needs and preferences and their work (Tims, Derks, & Bakker, 2016). Given the many positive outcomes linked to job crafting (JC) (for a review, check Rudolph et al., 2017), it is necessary to explore JC in the context of nursing to understand how this profession can benefit from it.

Ample research has documented who is more likely to engage in JC (antecedents) and how beneficial or harmful JC can be to individuals and their workplace (Rudolph et al., 2017). There are, however, notable gaps. First, There are only a few studies that have used non-WEIRD samples (e.g., Bell & Njoli, 2016). Job crafting originated in prototypically WEIRD contexts (western, educated, industrialized, rich, and democratic) (Henrich et al., 2010), where individual uniqueness is desirable, and adherence to hierarchy is not relevant. Such factors may facilitate JC— but are not equally present in all cultural contexts, where hierarchy is more valued or self-expression more restricted. Second, no research has empirically investigated the relationship between JC and creativity although it has long been argued to be a theoretical underpinning of JC (Wrzesniewski & Dutton, 2001), nor is there evidence on how personality in the Arab World is related to JC. Third, JC has never been explored in relation to non-work-related outcomes such as subjective well-being (SWB).

In this study, we aim to assess JC in relationship to creativity and personality, as personal characteristics, and to job autonomy as a job characteristic that can optimize patient

care (Kramer & Schmalenberg, 2003). We conduct our study in Lebanon, which is a non-WEIRD context different in many ways from previously studied contexts.

Background

Job Crafting

Job Crafting is characterized by self-initiated employee changes that accommodate employees' unique needs and preferences (Peeters, De Jonge, & Taris, 2014). In this study, we adopt Tims and Bakker (2010)'s conceptualization of JC in terms of crafting job demands and resources: (1) increasing structural job resources (ISTJR), (2) decreasing hindering job demands (DHJD), (3) increasing social job resources (ISOJR), and (4) Increasing challenging job demands (ICJD). We focus on the approach crafting JC dimensions (1,3&4), since evidence on the benefits of the avoidance crafting dimension has been inconsistent (for a review, check Rudolph et al., 2017).

We expand our understanding of JC theoretically by showing that it is empirically related to creativity and personality in the Levant region and that it has benefits beyond the workplace that are linked to the individual's SWB. From a more practical point of view, our study also assesses the role of job autonomy for JC, since low autonomy has been shown to be one of the major reason's nurses leave their jobs (Sinclair, 2020).

Job Crafting and Creativity

Creativity has been frequently used to define JC, as the latter is a set of creative actions demonstrated by employees at work (Wrzesniewski & Dutton, 2001). Only few studies, however, have tested the relationship between JC and creativity, and have done so only with creativity as an outcome variable, not an antecedent (Demerouti et al., 2015). Job crafting can be a choice that individuals make in response to an unfavorable or negative situation, or one that is a misfit between their needs and preferences and their job. Through JC, people can actively improve work conditions, search for new ways of doing things, and

advocate changes to for improvements, all of which are forms of employee creativity (Zhou & George, 2001). Accordingly, we predict that creativity is positively related to all three JC dimensions (H1).

Job Crafting and Personality

There is some evidence on the relationship between personality traits and JC (for a review, check Rudolph et al., 2017), but they are mostly restricted to Western contexts. Given the positive impact that JC can have, we argue it is relevant to understand personality as an antecedent of JC, as one of the most relevant conceptualizations of individual differences in general (Barrick & Mount, 1991), and one of the main predictors of SWB (Diener, Suh, Lucas, & Smith, 1999). Table 1 outlines the rationale for hypothesized relations between each of the seven API¹ personality facets and the approach dimensions of JC (H2:H8).

¹ Since we investigate a non-Western sample, we opted for a culturally appropriate personality conceptualization and assessment by Zeinoun, Daouk-Öyry, Choueiri, and Van de Vijver (2017). We thereby avoid a blind exportation of Western instruments (Van de Vijver & Leung, 2001). The Arab Personality Inventory (API) maps onto the Big Five, but assesses seven rather than five dimensions (conscientiousness, intellect, emotional stability, extraversion, agreeableness, honesty/integrity, and conventionality).

Table 1

Relationships Between Job Crafting and the Arab Personality Inventory Dimensions

Personality Facet	Rationale	ISTJR	ISOJR	ICJD
Intellect	Individuals who score high on intellect describe themselves as more rational, knowledgeable, and cultured (Zeinoun, Daouk-Öyry, Choueiri, & Van de Vijver, 2017). We expect the relationship between the job crafting dimensions and intellect to be similar to that with openness, since the later has been shown to be important for the development of proactive work behaviors (Grant & Ashford, 2008).	+ve (H2a)	+ve (H2b)	+ve (H2c)
Conscientiousness	Associations between conscientiousness and ISTJR and ICJD have been shown to be positive, and that between ISOJR and conscientiousness has been shown to be small (Rudolph, Katz, Lavigne, & Zacher, 2017).	+ve (H3a)	∅ (H3b)	+ve (H3c)
Extraversion	Wu and Li (2017) previously suggested that extraversion is key to facilitating proactive behavior. Previous research has also found that extraversion is positively related to expanding resources and ICJD (Rudolph et al., 2017).	+ve (H4a)	+ve (H4b)	+ve (H4c)
Emotional Stability	High emotional stability has been shown to be positively related to ISTJR (Roczniewska & Bakker, 2016) and ICJD (Rudolph et al., 2017). Shaping one's job, even socially is more likely to happen among employees who are more emotional stable.	+ve (H5a)	+ve (H5b)	+ve (H5c)
Agreeableness	Tornau and Frese (2013) has shown that agreeableness is positively related to personal initiative. Since overall job	+ve (H6a)	+ve (H6b)	+ve (H6c)

crafting has been positively linked to agreeableness (Rudolph et al., 2017), we expect to find similar relationships between agreeableness and the approach job crafting dimensions.		
Conventionality	Conventionality in the Arab Personality Inventory-relates to religiousness, following norms, being self-righteous, and is the opposite of being a rule breaker (Zeinoun et al., 2017). Conventional employees will more likely abide by pre-existing work processes and might thus be less likely to introduce changes to their jobs.	-ve (H7a) -ve (H7b) -ve (H7c)
Honesty-Integrity	The personality factor Honesty-Integrity in the API is close to Honesty-Humility factor in Ashton and Lee (2001)'s six-dimensional model of personality the HEXACO (Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O)). Generally, these individuals tend to avoid manipulating and taking advantage of others for their own benefit (Lee & Ashton, 2004). They also avoid deviation from a predefined job description and consequently not engage in job crafting.	-ve (H8a) -ve (H8b) -ve (H8c)

Notes. ISTJR = Increasing Structural Job Resources; ISOJR = Increasing Social Job Resources; ICJD = Increasing Challenging Job

Demands; +ve= positive relationship; -ve= Negative relationship; \emptyset = No relationship.

The references mentioned in this table can be found in the reference list at the end of the supplemental material.

Job Crafting and Job Autonomy

Rudolph et al. (2017) found that all approach crafting dimensions are positively related to job autonomy. We expect to replicate this finding in our study, and therefore expect job autonomy to be positively related to all three JC dimensions (H9a, b, &c).

Subjective Well-being**Job Crafting and SWB**

Little is known about how work-related variables such as JC influence overall life satisfaction, especially in healthcare where the high-risk nature of the work can have implications for many domains of the employee's life. Job crafting helps employees establish a more positive self-image, which influences satisfaction with the self (Diener & Diener, 2009). Accordingly, we hypothesize that JC is positively related to SWB (H10).

Personality and SWB

Personality is an important factor in predicting a person's SWB (DeNeve & Cooper, 1998). Previous research has shown that extraversion relates to positive affect, and low emotional stability to negative affect (Costa & McCrae, 1980). Accordingly, we argue that extraversion (H11a) and emotional stability (H11b) are positively linked to SWB. For other personality facets, the evidence is less clear. Agreeableness and conscientiousness were argued to have an indirect relationship with well-being (McCrae & Costa Jr, 1991). Previous studies found no relationship between HEXACO's Honesty–Humility (closely related to API's Honesty–Humility) and SWB (e.g., Visser & Pozzebon, 2013). Similarly, openness to experience was found to be unrelated to SWB (DeNeve & Cooper, 1998), which McCrae and Costa Jr (1991) speculated could be due to this facet being linked to increases in both negative and positive affect. Intellect is subsumed under openness to experience, (John & Srivastava, 1999), we therefore expect the same (non-) relation between Intellect and SWB. Conventionalism indicates that a person is more religious and has less-accepting attitudes to modern lifestyles. It is specific to the Arab Levant region (see the supplemental material .1

for more information about the study's context) and the personality model utilized (API). Conventionality per se might not have any impact on how individuals rate the satisfaction with their lives, and consequently SWB. Due to the lack of empirical evidence for a relationship between conscientiousness, agreeableness, honesty–integrity, intellect, conventionality, and SWB, we refrain from specifying direct hypotheses.

Creativity and SWB

Amabile et al. (2005) indicated that positive affect has a strong and dynamic relationship with creativity (they either occur before one another or simultaneously). Goff (1993) argued that creativity is essential for personal adjustments that in turn positively influences person's satisfaction with life. We therefore hypothesize that creativity is positively linked to SWB (H12).

Job Autonomy and SWB

Individuals seek control over their environment as this is necessary for their well-being (Bond & Bunce, 2003). Job autonomy increases employees' sense of control and encourages them to actively enhance their situation at work to achieve greater personal meaning (Wu, Luksyte, & Parker, 2015). We predict that job autonomy is positively related to SWB (H13).

Job Crafting as a Lynchpin of Relations

Personality, Job crafting, and SWB

Personality explains a substantial amount of the variation in SWB scores (32-56%, Hayes & Joseph, 2003), however, it is unclear how personality would be linked to well-being. We propose JC as a psychological mechanism, a mediator, linked to both well-being and personality. Personality facets might relate differently to SWB and in some cases may only be indirectly related to SWB via mediation. Extraversion and emotional stability are directly linked to higher SWB, and we argue they are linked to all three JC dimensions. Accordingly,

we hypothesize that all three JC dimensions play a role in at least partially mediating the relationship between these two personality facets and SWB (H14a &b).

Creativity, Job Crafting, and SWB

Goff (1993) argued that creativity coupled with personal adjustments can positively impact a person's satisfaction with life. Accordingly, we argue that all three JC dimensions play a role in partially mediating the relationship between creativity and SWB (H15).

Job Autonomy, Job Crafting, and SWB

Previous research has indicated that job autonomy is related to JC (Rudolph et al., 2017) and to life satisfaction (Prottas, 2008). Accordingly, we hypothesize that all three approach JC dimensions play a role in partially mediating the relationship between job autonomy and SWB (H16).

Method

Sample and Procedure

After obtaining ethical approval, data was collected from nurses working in seven hospitals in Lebanon using surveys. A detailed description of the context of the study is provided in the supplemental material.1. Out of 994 surveys, 547 were completed and returned. This is a response rate of 55%, which is relatively high compared to other studies conducted in a similar context (Kalisch, Doumit, Lee, & Zein, 2013; Marini, Hasman, & Huijjer, 2009). The surveys took around 25 minutes to complete. The demographic characteristics are presented in Table 2.

Table 2

Demographic Characteristics

Characteristic (Mean \pm SD)	n	%
Gender		
Male	124	24.27%
Female	384	75.15%
Age (30.65 \pm 7.05)		
<20	7	1.37%
20-30	236	46.18%
31-40	157	30.72%
>40	40	7.83%
Position		
Registered Nurse	351	68.69%
Practical Nurse	119	23.29%
Other nursing positions	29	5.67%
Highest Education		
Diploma in Nursing	95	18.59%
Baccalaureate* Technical (BT) in Nursing	71	13.89%
Technique Supérieure** (TS) in Nursing	49	9.59%
License Technique** (LT) in Nursing	76	14.87%
Bachelor of Sciences (BS) in Nursing	146	28.57%
Masters (MS) in Nursing	41	8.02%
Other	18	3.52%
Organizational Tenure (7.64 \pm 5.86)		
< 1 year	29	5.67%
1-5 years	179	35.03%
6-10 years	146	28.57%
11-20 years	110	21.53%
>20 years	22	4.30%
Employment Status		
Full-time	478	93.54%
Part-time	22	4.30%

Note. *. Equivalent to the last year of high school.

**.. Technical degrees.

Some numbers are less than 511 due to missing values.

Measures

Personality was measured using the API-Short (Daouk-Öyry, Zeinoun, Sahakian, & Van de Vijver, 2019). Job crafting was measured using the JC scale (Tims et al., 2012). Job

autonomy was measured using a subscale of Autonomy at Work Scale (Hackman & Oldman, 1975). To measure the affective dimension SWB, we administered the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). To assess the cognitive dimension of SWB, we measured life satisfaction using the Satisfaction with Life Scale (SWLS) (Diener, 2000; Diener, Emmons, Larsen, & Griffin, 1985). To measure creativity², we used the self-report scale developed by Miron, Erez, and Naveh (2004). Participants responded on a five-point Likert scale in all the scales. All scales had very good reliabilities (see Table 3).

² We sought to assess creativity using an adapted version of the brick test and self-report measure. We excluded the first since our sample did not provide sufficiently many responses on the task (only 31% were complete).

Table 3

Instruments' Cronbach's α

Instrument	Sub-scale	Cronbach's α	Example Items	Scale Points
The Arab Personality Inventory (API)	Honesty-integrity	.85	"I sometimes like it when others feel sorry for me"; "I am exploitative"	Not Applicable at all to Totally Applicable
	Emotional stability	.80	"I am generally firm with others"; "I am a stubborn person"	
	Agreeableness	.88	"I am fair to/with others"; "I encourage others for the better"	
	Conscientiousness	.91	"I am generally firm with others"; "I am a brave person"	
	Extraversion	.83	"I am entertaining to those around me"; "I am a sociable person"	
Job Crafting (JC)	Intellect	.82	"I think realistically about situations"; "I am intelligent"	
	Conventionality	.67	"I am generally obedient";	
	Increasing structural job resources	.88	"I try to develop my capabilities"; "I try to develop myself professionally"	Never to Very Often
	Increasing social job resources	.86	"I ask my supervisor to coach me"; "I ask whether my supervisor is satisfied with my work"	
	Increasing challenging job demands	.85	"When an interesting project comes along, I proactively offer myself"; "When there is not much to do at work, I see it as a chance to start new projects"	
Job Autonomy	Job Autonomy	.78	"I can choose my work tasks"; "I can choose the way I perform the work tasks"	Strongly Disagree to Strongly Agree
Positive and Negative Affect Schedule (PANAS)	Positive Affect	.88	"Excited"; "Interested"	Very Slightly or Not at All to Extremely
	Negative Affect	.88	"Distressed"; "Upset"	
Satisfaction with Life Scale (SWLS)	SWLS	.87	"In most ways my life is close to my ideal"; "I am satisfied with my life"	Strongly Disagree to Strongly Agree
Creativity	Creativity	.90	"I have a lot of creative ideas"; "I prefer tasks that enable me to think creatively"	Strongly Disagree to Strongly Agree

After removing the cases that had missingness rates higher than 25%, to reduce bias (Tabachnick & Fidell, 2012), we ended up with a sample size of 511. Descriptive statistics are presented in Table 4. We conducted Structural Equation Modeling (SEM) using MPlus (Muthén & Muthén, 2012). We used multiple imputation in MPlus to impute remaining missing values before conducting the analysis. Figure 1 shows the theoretical model that we tested. All paths in the model were freely estimated. Subjective well-being was modeled as one latent variable, and all other variables were modeled as manifest variables. We first tested whether the structure we adopted for SWB (as a latent factor of PA and SWLS) and that of the API (as a more recent tool) is applicable in our sample to test construct validity. The tested structures were found to have adequate fit (the model fit information is presented in the supplemental material.2).

Table 4
Means, Standard Deviations, and Zero-Order Correlations.

Variables	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ISTJR	4.19(.69)	(.88)													
2. ISOJR	3.27(.93)	.28**	(.86)												
3. ICJD	3.65(.77)	.51**	.48**	(.85)											
4. Positive Affect	3.57(.70)	.48**	.21**	.44**	(.88)										
5. Satisfaction with Life	4.52(1.36)	.12**	0.08	.19**	.27**	(.87)									
6. Creativity	3.73(.74)	.43**	.20**	.48**	.45**	.24**	(.90)								
7. Autonomy	3.55(.87)	.31**	.25**	.31**	.25**	.27**	.25**	(.78)							
8. Honesty	3.98(.87)	.24**	-.16**	.05	.12**	-.04	.07	.03	(.85)						
9. Emotional Stability	3.12(.78)	.028	-.01	.05	.04	.14**	.03	.04	.37**	(.80)					
10. Agreeableness	4.28(.67)	.56**	.18**	.38**	.40**	.12**	.32**	.26**	.40**	.01	(.88)				
11. Conscientiousness	4.48(.67)	.54**	.13**	.35**	.35**	.15**	.29**	.27**	.35**	-.02	.68**	(.91)			
12. Extraversion	3.93(.64)	.42**	.14**	.34**	.44**	.16**	.38**	.24**	.14**	-.13**	.59**	.56**	(.83)		
13. Intellect	3.93(.58)	.54**	.18**	.41**	.49**	.13**	.43**	.29**	.20**	-.10*	.71**	.65**	.63**	(.82)	
14. Unconventionality	4.08(.54)	.44**	.13**	.27**	.33**	.15**	.25**	.24**	.33**	-.01	.69**	.61**	.46**	.57**	(.67)

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

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

Values on the diagonal in parentheses are alpha coefficients. M = Mean; SD = Standard Deviation; ICJD = Increasing Challenging Job Demands; ISOJR = Increasing Social Job Resources; ISTJR = Increasing Structural Job Resources. All values are based on the raw unimputed data.

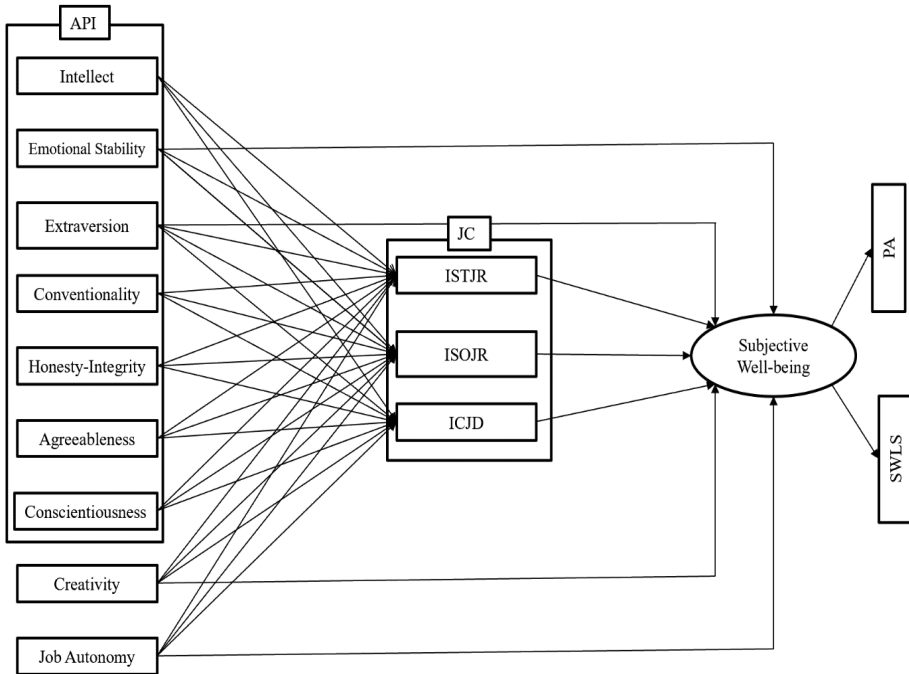


Figure 1. Proposed Theoretical Model

Note. API=Arab Personality Inventory; JC= Job Crafting; ISTJR. = Increasing Structural Job Resources; ISOJR = Increasing Social Job Resources; ICJD = Increasing Challenging Job Demands.

Results

Hypotheses Testing

The hypotheses were tested with SEM whereby the hypothesized model included paths from the seven personality factors, creativity, and job autonomy to the three JC dimensions, which in turn had paths to SWB (see Figure 2).

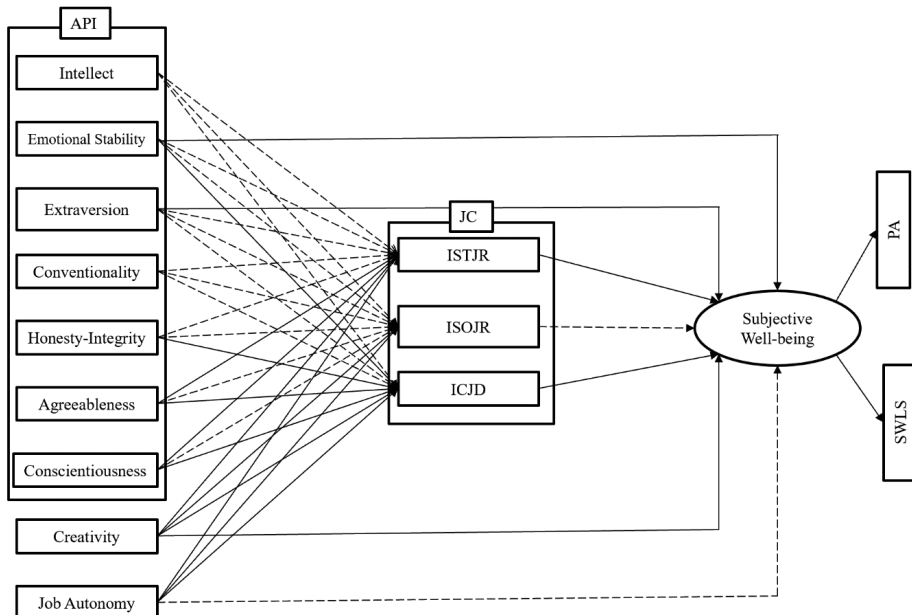


Figure 2. Resulting standardized paths of the hypothesized **partial mediation** model

Note. API=Arab Personality Inventory; JC= Job Crafting; ISTJR. = Increasing Structural Job Resources; ISOJR = Increasing Social Job Resources; ICJD = Increasing Challenging Job Demands; SWB= Subjective Well-being; SWLS= Satisfaction with Life Scale; PA= Positive Affect.

Dashed arrows indicate pathways that are not significant.

Full versus partial mediation. We compared two mediation models: (a) a partial mediation model with direct paths from extraversion, emotional stability, creativity, and the three dimensions of JC to SWB in addition to all the indirect paths going through the subdimensions JC to SWB; and (b) a full mediation model in which only indirect relationships (via the three subdimensions of JC) between the antecedents and SWB are included. The partial mediation model fit the data better than the full mediation one (see fit indices in Table 5). Accordingly, we chose the partial mediation model as it allows for more relationships to be modelled.

Table 5

Model Fit Information

Model	χ^2	df	RMSEA	CFI	TLI	AIC	BIC
Full Mediation Model	126.38, $p < .001$	20	0.102, 90% CI: .085, .119	0.887	0.689	5662.986	5853.623
Partial Mediation Model	64.108, $p < .001$	16	0.077, 90% CI: .058; .098	0.949	0.824	5605.030	5812.612

Note. χ^2 = Chi-squared; df = Degrees of Freedom; RMSEA = Root mean square error of approximation; CFI = Comparative fit index; TLI = Tucker Lewis index; AIC = Akaike information criterion; BIC = The Bayesian information criterion.

Direct relationships. As expected, all three JC dimensions were significantly positively related to job autonomy and self-reported creativity. The results also indicated that only ISTJR and ICJD were significantly related to conscientiousness (see also Table 1).

As predicted, ICJD and ISOJR were significantly negatively related to honesty/integrity, but ISTJR was not (unlike what we expected). Only ICJD was significantly related to emotional stability. The JC dimensions ISTJR and ICJD were significantly related to SWB. Finally, intellect, extraversion, and conventionality were unrelated to the three dimensions of JC.

As for the direct relationships between the antecedents and the outcome variable, our results (standardized coefficients) showed that extraversion, emotional stability, and creativity were significantly and directly related to SWB. However, no significant direct relationship was detected between job autonomy and SWB (see Table 6).

Indirect relationships. Our results (see Table 7) showed a significant indirect relationship between job autonomy, creativity and SWB through ISTJR and ICJD, but not through ISOJR. We discuss reasons for and implications of these relationships below.

Table 6

Direct Effects

	Effect on SWB		Effect on ISTJR		Effect on ISOJR		Effect on ICJD	
	Estimate		Estimate		Estimate		Estimate	
API Emotional Stability	0.11*	API Conscientiousness	0.28**	API Conscientiousness	0.01	API Conscientiousness	0.1*	
API Extraversion	0.29**	API Emotional Stability	0.035	API Emotional Stability	0.07	API Emotional Stability	0.08*	
Job Autonomy	0.09	API Honesty/Integrity	0.008	API Honesty/Integrity	-0.29**	API Honesty/Integrity	-0.11*	
Creativity	0.22**	API Intellect	0.111	API Intellect	-0.01	API Intellect	0.06	
ISTJR	0.22**	API Extraversion	-0.026	API Extraversion	-0.02	API Extraversion	0.02	
ISOJR	0	API Conventionalality	0.012	API Conventionalality	0	API Conventionalality	-0.04	
ICJD	0.2*	API Agreeableness	0.23**	API Agreeableness	0.23**	API Agreeableness	0.18*	
		Job Autonomy	0.2*	Job Autonomy	0.12**	Job Autonomy	0.14**	
		Creativity	0.22**	Creativity	0.11*	Creativity	0.33**	

Note. ICJD = Increasing Challenging Job Demands; ISOJR = Increasing Social Job Resources; ISTJR. = Increasing Structural Job Resources; SWB = Subjective Well-being; API = Arab Personality Inventory.

* $p < .05$. ** $p < .01$.

Table 7

Indirect Effects

Effect of API Emotional Stability on SWB	Effect of API Extraversion on SWB	Effect of Job Autonomy on SWB	Effect of Creativity on SWB
<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>
via ISTJR 0.01	via ISTJR -0.00	via ISTJR 0.01*	via ISTJR 0.03*
via ISOJR 0	via ISOJR 0	via ISOJR 0	via ISOJR 0
via ICJD 0.01	via ICJD 0	via ICJD 0.02*	via ICJD 0.05*

Note. ICJD = Increasing Challenging Job Demands; ISOJR = Increasing Social Job Resources; ISTJR. = Increasing Structural Job Resources; SWB= Subjective Well-being; API= Arab Personality Inventory.

* $p < .05$. ** $p < .01$.

Discussion

In this study, we set out to investigate how individual-level factors, namely personality, and job-level factors, namely job autonomy relate to JC. We also assessed the potential benefits that JC may have for nurses by investigating the relation between JC and well-being. We furthermore empirically tested the relationship between JC and creativity, which has been proposed to be a prerequisite of JC (although no direct evidence has been reported). Finally, we examined whether the concept of JC is structurally valid a non-WEIRD sample.

We find that JC is an important mediator through which creativity and job autonomy relate to factors beyond the workplace: both associated with SWB among our sample of nurses. While we find that the scales exhibit good structural properties in Lebanon, and although some relations were in line with previous research conducted in WEIRD, more individualistic contexts, we also find that some relations were not in line with previous research. We showcase the differential role that each of the three JC dimensions in our study has in the relationship between personality, job autonomy, creativity, and SWB. Our theoretical contribution is threefold. First, investigate the concept of JC in a non-Western context. Second, we provide the first empirical evidence on the relationship between creativity and JC. Third, we show that JC has benefits that go beyond the employee's work context.

The Role of Job Crafting for Nurses

Unlike what we expected, extraversion was unrelated to all JC dimensions. This might be specific to the nursing profession: extraverted aspects such as assertiveness and dominance may not be conducive in the nursing environment where nurses need to act in accordance with many expectations in terms of regulations and teamwork. Our study also found that emotional stability was related to only ICJD.

The link we found between emotional stability and ICJD might be better understood in light of its relationship with one of the main problems that nurses suffer from: burnout. Bakker, Demerouti, and Verbeke (2004) found that job demands were the most important antecedents of the emotional exhaustion component of burnout. This might be a reason why nurses who score high on emotional stability choose to increase their challenging demands because they would also be able to execute them properly. Unlike what was expected, honesty/integrity was not related ISTJR. It might be the case that engaging in this JC dimension does not involve overstepping any self-designated boundary employees might have set for themselves.

As expected, personality was associated with SWB: honesty/integrity and agreeableness predict SWB indirectly through ICJD. Scoring high on these facets could be related to an increased the sensitivity to environmental alterations, such as ICJD, making them happier with their lives. Extraversion and emotional stability are directly associated with SWB. Scoring high on the latter two personality facets may predispose individuals to be happier in life regardless of work experiences (McCrae & Costa Jr, 1991).

Creativity and Job Crafting among Nurses

Job crafting has been described before as a set of creative work behaviors demonstrated by employees (Wrzesniewski & Dutton, 2001). Proactive behaviors such as JC may be relevant for the translation of creative ideas into action (for a similar argument on voice, see Frese, 2000). Nurses who score high on creativity are more likely (and able) to engage in approach crafting, which provides insight on how JC can be one of the adaptive and problem-solving techniques that creative nurses engage in.

Our mediation model provides insight into creativity in the nursing context as we suggest that it is linked to SWB through JC. We also learn more about how JC can go beyond the boundaries of work and spillover to the nurse's personal life. This is particularly

important given the emotionally and physically demanding nature of their profession and how taxing this can be to their well-being (Diefendorff, Erickson, Grandey, & Dahling, 2011).

The Functionality of Job Crafting in a non-WEIRD Context

Our study explores the relationships between personality, creativity, job autonomy, and JC in a non-WEIRD context, Lebanon. Nurses who engage in ISTJR and ICJD score higher on SWB. Work-related benefits of JC for the employee and organization are well documented (see Rudolph et al., 2017), and these results show that JC is also associated with life outside of work. Engaging in ISTJR and ICJD might be satisfying needs that have a direct relation with the employee's overall SWB. A closer examination of Lebanon as the sample context might help us better understand why we did not find a similar relation between ISOJR and SWB.

Since feedback seeking behavior (ISOJR) is mostly about self-development (seeking advice and mentorship), it might not be related to life satisfaction since it is less valued in a collectivistic culture such as Lebanon. This is in line with the reasoning that life domains that are congruent with one's main values are relatively more important for one's life satisfaction (Oishi, Diener, Lucas, & Suh, 1999), which may not apply here.

Interestingly, while JC is directly associated with SWB, job autonomy is not. We found job autonomy to relate to SWB *only through the engagement in ISTJR and ICJD*. One possible reason could be that in a more collectivistic culture such as Lebanon, where social interactions at work are common, shaping one's job socially is not perceived as a way of exercising one's job autonomy. These two JC dimensions seem to be the active catalysts in the relationship between job autonomy and SWB although job autonomy has long been touted as a job characteristic that has direct positive effects on employees' work attitudes (e.g., job satisfaction) and behaviors (e.g., creative performance; Deci, Olafsen, & Ryan, 2017; Hackman & Oldman, 1975).

Limitations

First, our data are correlational, and can therefore not examine causal directionality. That is, although our results show that personality, creativity, and autonomy are predictive of SWB, the opposite may also apply. Second, self-selection bias might have influenced our study. For example, overworked nurses close to burnout may not have had the time or motivation to participate. Finally, we suggest culture-specific pathways, but the present data do not directly allow for testing the role of culture for JC and related variables in a comparative design.

Conclusion

In this study, we find clear evidence that engaging in job crafting (JC) in the nursing context has benefits that go beyond the workplace since it is positively associated with subjective well-being (SWB). This possible spillover to nurses' personal lives, highlights how an emotionally demanding profession, such as nursing, could benefit from JC. Our study finds empirical support that creativity is related to the approach dimension of JC, which might be one of the ways through which nurses use creativity to adapt their work behavior. Our results show that while agreeableness, conscientiousness, honesty/integrity, and emotional stability predict the engagement in JC among nurses, other personality dimensions do not. Finally, our study further enriches our understanding of job autonomy by highlighting that it has a positive influence on one's life only if JC is considered as a mediator. We find some evidence that JC partially applies in a non-WEIRD context, but we also see that many aspects are different from previous research.

Practical Implications for Nursing Management

Our results have managerial implications relating to the selection and training of nurses. Healthcare organizations may benefit from including personality and creativity as part of their selection criteria, as our results indicated that they are related to engagement in JC.

This is particularly relevant considering that engaging in JC behaviors can have a positive influence on the work well-being and performance of nurses (Gordon et al., 2018).

Furthermore, our results suggest that engaging in JC is significantly related to higher SWB.

High SWB has been linked to lower levels of burnout among nurses (Qu & Wang, 2015).

Alternatively, healthcare organizations can design targeted training programs that focus on empowering nurses with the tools needed to shape their jobs while still maintaining standard clinical procedures.

Chapter 2| Supplemental Material



Supplemental Material

1. The Context of the Study

We collected data on JC from nurses in rural and urban, public and private hospitals across Lebanon, a Middle Eastern country. Lebanon has had history characterized by colonization, invasion, and civil wars (Salibi, 2003), which characterize its multi-ethnic composition. Economically, a high and rising fiscal deficit is coupled with poor growth. Lebanon's debt-to-GDP reached 152 % in 2018, which was the third highest in the world back then (UN, 2018). Lebanon suffers from a 25% unemployment rate which goes up to 37% among adults less than 25 years of age (Hamadi, 2019). Only 23.5% of women are part of the labor market, while the proportion of men is 70.3% . According to the Gender Gap index, Lebanon ranking is in the bottom three in the Middle East and North Africa (MENA) region (ranked at 135); only Syria and Yemen have a worse gender gap ranking (WEF, 2016). These characteristics differ from previously assessed Western contexts that are characterized by more economic stability, job security, and participation of both genders in the job market. We therefore expect it to be informative whether JC may play a similar in such a context.

Job Crafting has been predominantly explored in Western, educated, industrialized, rich, and democratic (WEIRD) societies (Henrich et al., 2010). Lebanon is not only interesting because it is non-WEIRD: *First*, Lebanon is a context characterized by collectivism, high power distance and low tolerance to norm violations (Hofstede et al., 2010). Individuals who live in Lebanon place the needs of the group over their own needs and value unity and family ties (Hofstede et al., 2010). *Second*, Lebanon is home to 18 religious sects (with the main religions being Islam and Christianity), and has been described as a “collage” of communities (Tabar, 2009). Communities are not only divided by their religious sects in Lebanon, but also by their political affiliations, which are crucial for

classifying others as in-group or out-group (Khairallah, 1994). *Third*, the influx of Syrian refugees has added to diversity further. Up till September 2019, there were 919,578 registered Syrian refugees in Lebanon (UNHCR, 2019). Not only does this influx influence the socio-cultural scene of Lebanon, but many of these refugees have serious health care needs because of but not limited to pre-existing chronic conditions and injuries suffered from the war in Syria (Coutts et al., 2015; Maziak et al., 2007; Taleb et al., 2015). Such a huge number of refugees was not paralleled with an expansion of the Lebanese healthcare infrastructure, which means that the same facilities that provided healthcare services to the Lebanese citizens now need accommodate the needs of an additional 1 million Syrian refugees. This added more strain on the Lebanese healthcare system and healthcare employees - who were already suffering from issues shared with healthcare globally, as the nursing field is characterized by high rates of turnover and absenteeism (for a review check Daouk-Öyry, Anouze, Otaki, Dumit, & Osman, 2014) and bordered by standard operating procedures allowing little to no room for change (which is at the core of JC). Research in economic and cultural contexts like Lebanon is absent even in recent overviews (e.g. Rudolph et al., 2017), and we argue that Lebanon might be an important exemplary context to assess whether JC is equally relevant as in non-Western contexts.

2. Assessing the Structure of the Constructs

Assessing the Structure of SWB

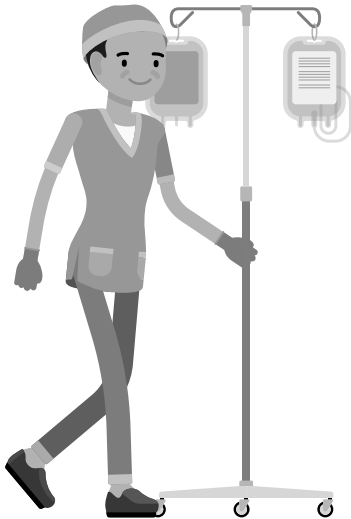
In our study, SWB was modeled as one latent factor with two latent indicators (i.e., satisfaction with life scale and the positive component of the PANAS: PA) which were measured by the items on PA and SWLS respectively. We opted for the model whereby PA and SWLS are two strongly correlated latent factors that indicate SWB, in line with previous studies (e.g., Dimitrova, Chasiotis, Bender, & van de Vijver, 2013). These correlated factors were then converted in the final model to one latent factor (SWB) with two latent variables.

The model fit was adequate ($\chi^2(88, N = 511) = 358.020; p < .001$, RMSEA = .077; 90% CI: .069, .086, CFI = .916, TLI = .900).

Assessing the Structure of the API

In order to better test the psychometric properties of the API-Short developed by Daouk-Öyry et al. (2019), we conducted a CFA while parceling the items to decrease bias related to low subject-to-item ratio (Little, Rhemtulla, Gibson, & Schoemann, 2013) and thereby achieve a better fitting model. For that, we modeled the API using the means of every two items under each of the seven personality dimensions. The model fit was adequate ($\chi^2(299, N = 511) = 937.02; p < .001$, RMSEA = .065; 90% CI: .060, .069, CFI = .918, TLI = .903).

Chapter 3| Job Crafting across Cultures



This chapter is largely based on:
Ghazzawi, R., Bender, M., He, J., & Daouk-Öyry, L., (under review). Testing Equivalence of Job Crafting and Need Satisfaction across three Cultures. *The International Journal of Human Resource Management*.

Chapter 3

Testing Equivalence of Job Crafting and Need Satisfaction across three Cultures

Job crafting (JC) is a specific form of proactive work behavior that involves employees actively changing the characteristics of their jobs (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). These changes help them better match their personal needs and preferences with their current job (Tims & Bakker, 2010), while maintaining its core elements (Bruning & Campion, 2018). To date, much of the conceptualization, theorizing, and operationalization of JC has been done in WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies (Henrich et al., 2010). Accordingly, many tools used to measure JC have also been developed in those contexts (e.g., Nielsen & Abildgaard, 2012; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims et al., 2012). The JC scale developed by Tims et al. (2012) is the most widely used one. Although research on JC so far has explored various individual differences, little to no attention has been given to the structure and function of JC across cultures (for a review, check Rudolph et al., 2017). Some studies have explored the reliability and validity of this scale in non-Western cultural contexts (see supplemental material I for more information). However, none has adopted a comparative design that includes invariance testing. Until now, studies that assessed JC in different contexts have primarily used Western-developed measures of JC - without testing if the instrument can be applied (e.g., Bell & Njoli, 2016; Emamizadeh & Beveridge, 2018). To our knowledge, measurement invariance for the Tims et al. (2012) JC scale has so far not been established. We argue that this is a necessary step towards a more culture-informed assessment of JC outside of Western contexts.

With the aim to address this gap and better understand the underlying intrinsic motivational theory that explains how JC is related to work outcomes, namely, job satisfaction (JS), we set out to test (1) the measurement invariance of the most widely used

scale of JC and (2) its relation to motivation and job satisfaction in samples of nurses from Lebanon, India, and the United States (US).

Conceptualization and Measurement of Job Crafting

Many conceptualizations of JC exist in the literature (for a review check, Hu et al., 2020), and the most widely used one has been that by Tims and Bakker (2010). Tims and Bakker (2010) described JC using the job demands-resources (JD-R) model (Bakker & Demerouti, 2007) as shaping job demands and resources. Tims et al. (2012) operationalized JC into four sub-dimensions: increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands. The authors then developed a scale to measure the four dimensions accordingly.

Job Crafting in Healthcare across Cultures

Wrzesniewski and Dutton (2001) argued that employees can still engage in JC even when their jobs offer them little room to do so. The nursing profession is a highly standardized one that is bordered by standard operating clinical procedures, however, this does not prevent members of this profession from engaging in JC, as demonstrated in a series of studies that explored JC in the nursing context (e.g., Baghdadi, Farghaly Abd-EL Aliem, & Alsayed, 2020; Bakker, 2018; Yepes-Baldó, Romeo, Westerberg, & Nordin, 2018). In this highly regulated field, nurses are not expected to perform very different tasks across different countries and cultures (for an overview of nursing tasks, check O*NET, 2021). While nursing tasks are standardized for accreditation and safety purposes, nursing competency models are not, since they capture the skills and abilities needed to demonstrate good performance on a certain job (Rodriguez, Patel, Bright, Gregory, & Gowing, 2002; Schippmann, 2010). Core competencies might differ across contexts since cross-cultural variations are operationalized through them. For example, in a collectivistic context such as India where group harmony is more valued (Hofstede, 2001), high performing nurses are expected to foster interpersonal

relationships with patients and their families (Hemalatha & Shakuntala, 2018). In contrast, in the American context where power distance is low (Hofstede, 2001), high-performing nurses are expected to demonstrate leadership as it is one of the core nursing competencies in the US (The NOF Competency Committee, 2016). Thus, it is reasonable to expect that nurses in different cultural contexts may have different preferred JC strategies. Job crafting is related to many positive work outcomes such as work attachment (Wang, Demerouti, Blanc, & Lu, 2018), work engagement, and self-rated work performance (Rudolph et al., 2017). Job satisfaction, however, is one of the most common positive experiences linked to JC (Fuller & Unwin, 2017).

Job Crafting and Job Satisfaction among Nurses

Job satisfaction is an affective state indicating how satisfied employees globally are with their overall work situation (Weiss, 2002). In nursing, JS has been shown to influence job performance, intention to leave the hospital and the profession, burnout, and organizational commitment (for a review see, Lu, Zhao, & While, 2019). Although there is considerable evidence on the relationship between JC and JS (De Beer et al., 2016), little is known about the underlying mechanism that might explain this relationship. One possible avenue for better understanding the link between JC and JS is via Self-determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2000, 2008) since it posits how intrinsic needs are linked to positive outcomes once satisfied.

Job Crafting and the Self-determination Theory

According to Wrzesniewski and Dutton (2001), JC is driven by three main needs: the need to have control over one's job, the need to establish and maintain connections at work, and the need to have a positive self-image. There is clear correspondence to basic human motivation, as outlined in SDT (Ryan & Deci, 2011), whereby the satisfaction of those needs results in feelings of value and meaningfulness (Hu et al., 2020). According to SDT, there are

three universal psychological needs that when satisfied, lead to optimal functioning: the needs for autonomy, competence, and relatedness (Deci & Ryan, 2000). Autonomy requires being the owner of one's own behavior and having a sense of choice. Competence requires successfully completing challenging tasks. Relatedness requires the experience of being cared for, respected, and needed. In summary, JC might satisfy basic needs, which is in turn linked to positive outcomes, namely JS.

Cross-cultural Exploration of Job Crafting

It has been long established that psychological knowledge gathered from one cultural group cannot be readily generalized to other cultural groups, as different cultures can significantly differ in terms of how they expect their individuals to perceive and react to the world (Arnett, 2008). Establishing measurement invariance is essential for cross-cultural research (van de Vijver & Leung, 1997) as it allows us to establish whether we make valid comparative inferences between different samples. Showing that a measure of a certain construct is invariant indicates that the construct is understood to have the same elements and respondents use the same metrics to respond.

Research suggests that basic need satisfaction (BNS) and intrinsic needs are universal across cultures (e.g., Deci & Ryan, 2000; Sheldon, Abad, & Omoile, 2009; Vlachopoulos et al., 2013). For JC, universality is so far unassessed. Recent metanalyses (see Lazazzara et al., 2020; Rudolph et al., 2017) are evidence that almost all research on JC has been conducted in WEIRD contexts (with the exception of a handful of studies), and culture has not been considered a relevant factor. However, cultures do differ in critical areas of psychological functioning such as conceptions of the self, the importance of choice, and notions of fairness (Henrich et al., 2010) which may have implications for the conceptualization and measurement of constructs such as JC.

Just like culture guides the direction and development in socialization goals, it also guides organizational behavior (Tsui, Nifadkar, & Ou, 2007). The socialization goal in individualistic, Western, cultures is to focus on developing an individual sense of identity and being independent (Triandis, 1995). This mindset prepares employees to make decisions at work and act autonomously (Triandis, 1993). However, socialization goals in collectivistic cultures focus more on controlling such individualistic acts, reducing unique characteristics, and developing more collectivistic ideals built in cooperation, conformity, and interdependence (Markus & Kitayama, 1991; Singelis, 1994). Such socialization differences manifest themselves in cultural dimensions such as collectivism-individualism, power distance, long-term orientation, and uncertainty avoidance (Hofstede, 2001).

We argue that such differences may influence *how* employees engage in JC – or whether they even engage in and recognize JC at all. For example, high power distance contexts might prevent employees from closely interacting with their supervisors (Hofstede, 2001). In contrast, contexts where power distance is low, employees may find it easy to approach their supervisors and ask them for feedback. Contexts where collectivism is high might foster collaboration and encourage employees to seek advice from each other, while this might be less common in high individualistic contexts where the focus is on the person and his or her goals (Triandis, 1993; Wu & Keysar, 2007).

All of these factors can influence the performance of any tool that measures JC. We argue that results that are inconsistent with the literature are prompts to consider cross-cultural differences in the construct/measure. In order to explore the cross-cultural applicability of JC (construct and measure) across different cultures, we will use the framework of bias and equivalence (Van de Vijver & Poortinga, 1997) as the methodological prerequisite for cross-cultural comparative research.

Bias and Equivalence in Cross-cultural Research

Bias refers to systematic errors in measurement that threaten the validity of cross-cultural research (van de Vijver & Tanzer, 2004; Van de Vijver & Poortinga, 1997). Three main types of biases exist: *construct bias*, *method bias*, and *item bias*. *Construct bias* occurs if the meaning of the construct varies across cultures. *Method bias* is bias due to differences in sampling, assessment instruments, and administration strategies. *Item bias*, also known as Differential Item Functioning (DIF), occurs when individuals coming from different cultural groups and having equal trait levels, perceive the same item differently (for an overview check, He & van de Vijver, 2012). For the present research, the most relevant type of bias is *construct bias*. If there is construct bias, the construct is not identical across cultures, for instance in terms of its breadth or boundary definition, but also whether it is something that people consider meaningful in the first place (He & van de Vijver, 2012; van de Vijver & Leung, 1997; Van de Vijver & Poortinga, 1997). As an example, happiness is understood differently for Western (maximization of positive affect) or Eastern participants (balance of affect) (Uchida, Norasakkunkit, & Kitayama, 2004). Researchers recommend demonstrating how comparable – or equivalent – psychological assessment is across cultures (for an overview, see Bender & Adams, 2021). Partially corresponding to the three types of biases, van de Vijver and colleagues distinguish configural, metric, and scalar equivalence (van de Vijver & Leung, 1997).

Configural equivalence indicates that the underlying construct is associated with the same observed variables (items) across cultures. This means that the construct is expressed via the same items across different cultures. This is the basis for any numeric comparisons across cultures. Metric equivalence indicates that factor loadings are comparable across cultures. This indicates that the psychological meanings of the latent construct measured are equivalent across groups (Vandenberg & Lance, 2000). With metric equivalence,

unstandardized regression coefficients can be compared across cultures but not mean scores. Scalar equivalence indicates the measurement scale has the same item intercepts in different cultures, which means that scores on the latent construct can be compared across groups (see, He & van de Vijver, 2012, for an overview).

The Present Study

This study aims to study the measurement equivalence of JC, BNS, and JS among nurses in three cultural contexts and then test the relationships among JC, BNS, and JS once the equivalence is established.

Hypotheses

The structure of the job crafting and basic need satisfaction scales. Research on JC has individualistic underpinnings and has adopted an agentic view of employees. This view, however, is not equally salient in cultures. In some cultures, acting autonomously is rewarded, but this might not hold in cultures that are more collectivistic, in which agency is less appreciated (Nauta, Liu, & Li, 2010). This could have implications for the comparability of the construct of JC and may even render it invalid in cross-cultural comparison. We do not expect all dimensions of JC to be equivalent across the three investigated cultures. This is mainly because job demands and resources as tools to engage in JC, are perceived and used differently in different cultures. In contrast, we expect that the three needs of the BNS scale to be equivalent, in line with previous research (e.g., Van den Broeck, De Cuyper, et al., 2010).

The function of job crafting. Research is increasingly highlighting the benefits of the approach dimensions of JC (increasing challenging job demands and increasing social and structural job resources) over the avoidance dimensions (decreasing hindering demands). The first are linked to promotion focus, while the latter are linked to prevention focus (Bruning & Campion, 2018; Lichtenthaler & Fischbach, 2019). Individuals who score high on promotion

focus are more concerned with growth and advancement, while individuals who score high on prevention focus are more concerned with safety and security and staying away from losses (Higgins, 1997). Individuals prefer to seek goals in ways that fit with their regulatory focus as this helps them feel engaged at what they are doing (Cesario, Grant, & Higgins, 2004; Freitas & Higgins, 2002). Promotion focus supports the satisfaction on the needs for autonomy, relatedness, and competence more than avoidance focused (Vaughn, 2017). The three basic needs for autonomy, competence, and relatedness are analogous to the main drivers of JC: the needs to have control over one's work, have a positive self-image, and to establish and maintain relationships with others respectively (Wrzesniewski & Dutton, 2001). Engagement in JC might satisfy those three basic needs. For example, when employees engage in JC by increasing their social job resources, they might be satisfying their need for relatedness by establishing meaningful relationships and the need for competence by receiving good feedback from others. This need satisfaction, in turn, is associated with employee well-being. Overall need satisfaction has been shown to be positively related to work related well-being, such as JS (Gagné & Deci, 2005). We argue that the satisfaction of the three basic needs is the pathway through which engaging in JC has positive outcomes at work, namely JS. Accordingly, we hypothesize that *the promotion dimensions of JC, but not the avoidance JC dimension, will be positively related to the basic needs (autonomy, competence, and relatedness) and to JS and that the three basic needs have a mediating role in the relationship between JC and JS*. Figure 1 represents the proposed theoretical model.

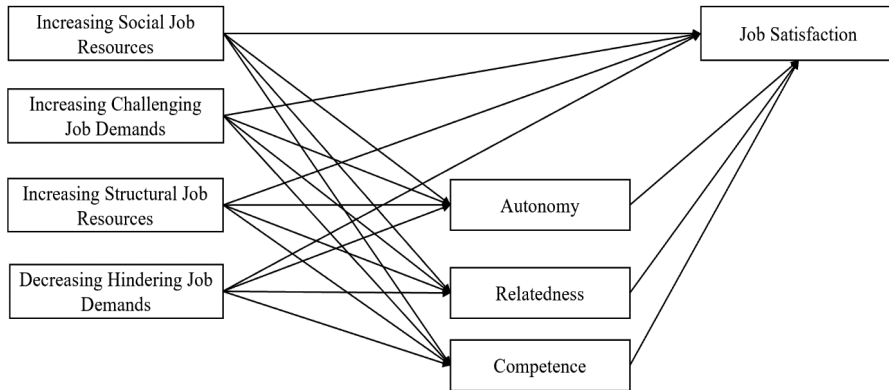


Figure 1. Theoretical Model (Pre-analysis).

Sampling Rationale and Sample Characteristics

We first set out to test whether the construct of JC is equivalent (i.e., free of construct bias), and collected data from nurses in three countries: Lebanon, India, and the US. These three countries provide an informative cultural contrast to one another as they differ on various cultural, historical, and social levels, which is in line with recommendations regarding cross-cultural comparisons (Leung & Van De Vijver, 2008). Specifically, India and Lebanon cluster as more collectivist cultures (Hofstede, 1980; Oyserman et al., 2002), whereas the US has frequently been described as one of the most individualistic societies in the world. We conclude that these three countries clearly map onto important variation across the individualism/collectivism spectrum, which posits an informative platform for testing the universality of JC and BNS.

Lebanon, our first sampling context is characterized by both collectivistic (in rural areas) and individualistic (in urban areas) elements. In contrast to other Arab countries, Lebanon tolerates Western ideals and lifestyles very well (Barakat, 1977), and shares some Western work values, while also valuing those influenced by the Islamic and Christian religions. Employees are influenced by the patriarchal nature of Lebanese culture, where

individuals tend to depend on and follow the rules of the father (Sharabi, 1988). Lebanon has a Gross Domestic Product (GDP) per capita of \$ 11, 647 (The World Bank, 2019) and a Human Development Index (HDI) of 0.757 (UNDP, 2018a). India has a lower GDP per capita (\$ 2,015.6) (The World Bank, 2018) and an HDI of 0.640 (UNDP, 2018c). Comparable to Lebanon, India is also a high-power-distance society (Hofstede et al., 2010)³, restricting the expression of autonomy. India is a high-power-distance society (Triandis, 1998), reinforced by the caste system and India's colonial past (Lawler, Jain, Venkata Ratnam, & Atmiyanandana, 1995). Indian employees are highly concerned about rules and very dependent on higher authority (Bass & Burger, 1979). India is a collectivistic and traditional country (Hofstede et al., 2010), where employees adopt work values of altruism, associates, and good supervisory relations (Hartung et al., 1996). On the other hand, low power distance (Hofstede et al., 2010) and high flexibility (Minkov et al., 2018), provides American employees with high autonomy at work and facilitates the adoption of the work values of achievement, independence, and intellectual Stimulation (Hartung, Speight, & Lewis, 1996). The US has a GDP per capita of \$ 54,541.70 and an HDI of 0.924 (UNDP, 2018b). The US is a prototypically WEIRD and individualistic (Hofstede et al., 2010), where there is high educational attainment (Schmidt, 2018). Compared to the US, Lebanon and Indian are non-WEIRD societies, however, the populations are fairly educated. Table 1 outlines the main differences between the three countries.

³ Hofstede's country comparison tool has estimated values of scores on the five cultural dimensions for Lebanon which are most likely derived from the scores of the neighboring countries. However, Lebanon's unique history and context makes it harder to assimilate it to the other nearby countries.

Table 1

Indicators across Lebanon, India, and the US

Indicator	Lebanon	India	The US
	Non-WEIRD	Non-WEIRD	WEIRD
Hofstede's Individualism/Collectivism Dimension	Collectivistic and individualistic	Collectivistic	Individualistic
GDP	\$ 11, 647	\$ 2,015.6	\$ 54,541.70
HDI	0.757	0.640	0.924
Work conditions	Influenced by the patriarchal nature of the Lebanese culture	Dependent on higher authority	Flexible and autonomy-encouraging
Hofstede's Power Distance Dimension	Moderate	High	Low
Work Values	Western, influenced by the Islamic and Christian religions	Altruism, associates, and good supervisory relations	Achievement, independence, and intellectual stimulation

We first examine the construct validity of JC, BNS at work, and JS. In case we can demonstrate construct validity, we then explore how JC relates to BNS at work and in turn predicts JS in three samples of nurses from Lebanon, India, and the US. We will be guided by the general reasoning that important cultural indicators, such as power distance, differ across cultures, which might influence the engagement in JC across the three samples.

Method

Sample and Procedure

Lebanese Sample. This sample had 105 Lebanese nurses (67.6% females and 32.4% males) working in hospitals in Lebanon. The participants' age ranged from 18 to 60 years ($M^{\text{age}} = 27.99$ yr, $SD = 8.30$ yr). The sample included 87 registered nurses (82.8%), 11

practical nurses (10.5%), while the rest were midwives and students (with some work experience).

Indian Sample. This sample had 115 Indian nurses (77.4% females and 22.6% males) working in hospitals in India. The participants' age ranged from 18 to 32 years ($M^{age} = 22.69$ yr, $SD = 3.04$ yr). The sample mainly comprised practical and registered nurses (82%).

American Sample. This sample had 139 American nurses (89.2% females and 10.8% males) working in hospitals in the US. The nurses were from hospitals scattered all over the country. The participants' age ranged from 21 to 71 years ($M^{age} = 39.44$ yr, $SD = 11.51$ yr).

The sample included 19 practical nurses (13.7%), and 119 registered nurses (85.6%).

Demographic characteristics of the samples are presented in Table 2.

Table 2

Demographic Characteristics

Characteristic	Lebanon (n = 105)		India (n = 115)		USA (n = 139)	
	n	%	n	%	n	%
Gender						
Male	34	32.38%	26	22.61%	15	10.79%
Female	71	67.62%	89	77.39%	124	89.21%
Age						
<20	7	6.67%	13	11.30%	0	0.00%
20-30	69	65.71%	99	86.09%	34	24.46%
31-40	20	19.05%	3	2.61%	50	35.97%
41-60	8	7.62%	0	0.00%	44	31.65%
>60	0	0.00%	0	0.00%	11	7.91%
Position						
Registered Nurse	87	82.86%	61	53.04%	117	84.17%
Practical Nurse	11	10.48%	19	16.52%	19	13.67%
Other nursing positions***	7	6.67%	35	30.43%	3	2.16%
Highest Education						
Diploma in Nursing	15	14.29%	9	7.83%	35	25.18%
Baccalaureate* Technical (BT) in Nursing	6	5.71%	0	0.00%	0	0.00%
Technique Supérieure** (TS) in Nursing	11	10.48%	0	0.00%	0	0.00%
License Technique** (LT) in Nursing	5	4.76%	0	0.00%	0	0.00%
Bachelor of Sciences (BS) in Nursing	45	42.86%	87	75.65%	82	58.99%
Masters (MS) in Nursing	17	16.19%	4	3.48%	15	10.79%
Other	6	5.71%	15	13.04%	7	5.04%
Organizational Tenure						
< 1 year	14	13.33%	29	25.22%	0	0.00%

Chapter 3

	Job crafting across cultures					
1-3 years	52	49.52%	80	69.57%	39	28.06%
4-6 years	20	19.05%	6	5.22%	36	25.90%
7-10 years	10	9.52%	0	0.00%	34	24.46%
11-20 years	8	7.62%	0	0.00%	19	13.67%
>20 years	1	0.95%	0	0.00%	11	7.91%
Employment Status						
Full-time	89	84.76%	82	71.30%	123	88.49%
Part-time	16	15.24%	33	28.70%	16	11.51%

*. Equivalent to the last year of high school.

**. Technical degrees.

***. Might include students who have practical experience

Measures and Test Adaptation

We collected data from three samples that have very similar characteristics: nurses working in hospitals. By doing so we seek to have comparable samples and ensure greater sensitivity to the influence of cultural differences on the construct (Leung & Van De Vijver, 2008). In order to decrease the possible effect of differential item functioning (van de Vijver & Leung, 1997), due to sub-optimal translations, the original instruments were adapted, rather than being only translated, into the local language by bilingual local researchers who are familiar with the language and the culture. We collected data from the Lebanese sample using scales adapted into Arabic. For the Indian sample, we opted for the English version since English is the lingua franca in biomedical professions in India (Narayan, 2013) and educated individuals are expected to be proficient in it (Minkov et al., 2018). Finally, for the US sample, we used the validated English versions of the scales.

Measures. Basic Need Satisfaction at Work was measured using the 21-item scale developed by (Deci & Ryan, 1985; Deci et al., 2001) that captures the three intrinsic needs—autonomy, competence, and relatedness—during work. This scale has been shown to be universal shown to be applicable cross-culturally (Deci et al., 2001). Responses on this scale ranged from 1 (*not true at all*) to 7 (*very true*). Job crafting was measured using the 21-item JC scale developed by Tims et al. (2012), which is the most widely used scale in JC research. Participants responded on a five-point Likert scale ranging from 1 (*never*) to 5 (*very often*). In order to measure JS, we used the three-item scale developed by Tims et al. (2013). The items in this scale closely correspond with items used to measure JS in the widely used Michigan Organizational Assessment Questionnaire (MOAQ; Cook, Hepworth, Wall, & Warr, 1981). Participants responded to the items on a 5-point Likert scale ranging from 1 (*totally disagree*) to 5 (*totally agree*). All the items used are included in the supplemental material .3. Descriptive statistics are presented in Table 3.

Table 3

Means, Standard Deviations, and Zero-Order Correlations.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
			Lebanon							
1. Increasing Structural Job Resources	4.27	0.49	(.69)							
2. Decreasing Hindering Demands	2.98	0.68	-.12	(.63)						
3. Increasing Social Job Resources	2.89	0.77	.19	.22*	(.72)					
4. Increasing Challenging Job Demands	3.57	0.76	.34**	.14	.45**	(.80)				
5. BNS Autonomy	4.31	0.94	.30**	.04	0.17	.28**	(.64)			
6. BNS Relatedness	5.03	0.98	.21*	-.10	.21*	.23*	.44**	(.77)		
7. BNS Competence	5.52	0.78	.32**	.08	0.19	.33**	.63**	.46**	(.44)	
8. Job Satisfaction	3.33	0.97	.12	.21*	.49**	.41**	.48**	.46**	.54**	(.80)
			India							
1. Increasing Structural Job Resources	4.00	0.80	(.83)							
2. Decreasing Hindering Demands	3.34	0.86	.48**	(.85)						
3. Increasing Social Job Resources	3.80	0.82	.63**	.46**	(.82)					
4. Increasing Challenging Job Demands	3.69	0.78	.68**	.56**	.54**	(.81)				
5. BNS Autonomy	4.34	0.85	.34**	.04	.22*	.24**	(.41)			
6. BNS Relatedness	4.43	0.77	.35**	.14	.30**	.27**	.40**	(.37)		
7. BNS Competence	4.82	0.89	.48**	.05	.29**	.34**	.41**	.43**	(.42)	
8. Job Satisfaction	3.54	0.86	.27*	.08	.32**	.33**	.50**	.28**	.28**	(.82)
			The United States							
1. Increasing Structural Job Resources	4.38	0.48	(.71)							
2. Decreasing Hindering Demands	2.95	0.91	.17	(.85)						

3.	Increasing Social Job Resources	3.26	0.84	.19*	.34**	(.84)
4.	Increasing Challenging Job Demands	3.72	0.77	.50**	.15	.44** (.83)
5.	BNS Autonomy	4.85	0.91	.41**	-.01	.15 .31** (.68)
6.	BNS Relatedness	5.54	0.92	.36**	-.14	0.12 .20* .69** (.79)
7.	BNS Competence	5.94	0.96	.57**	-.11	0 .32** .61** (.74)
8.	Job Satisfaction	4.32	0.69	.42**	.20*	.24** .52** .48** (.88)

Note. Values on the diagonal in parentheses are alpha coefficients. M = Mean. SD = Standard Deviation.

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

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

Results

Step 1: Equivalence Testing

We first conducted a Multi-Group Confirmatory Factor Analysis (MG-CFA) (Bollen, 1989; Byrne, 2010) in MPlus (Muthén & Muthén, 2012). This technique allows us to establish construct validity, and determine whether parameters of a measurement model and/or the structural model are equivalent across two or more groups (Byrne, 2010) by providing a rigorous test of configural, metric, and scalar equivalence. This analysis is a multistep one that includes testing and comparing different models of increasing strictness (for a checklist of important steps, see Van De Schoot et al., 2013). The analysis starts off with the baseline model that tests for configural equivalence, which assesses if items are loading onto the same factor in each group. Against this configural model, the metric equivalence model is tested, with factor loadings constrained to be equal across the groups. The final step then compares the metric equivalence model with the scalar equivalence model, which has item intercepts constrained to be equal across the groups.

The model fit was evaluated using Chi-square tests, Comparative Fit Index (CFI), Tucker-Lewis index (TLI), and Root Mean Square Error of Approximation (RMSEA). When comparing the models (from the less to the more restricted) a change of CFI and RMSEA within .01 helps us determine that the more restricted model in comparison to the less restricted model is acceptable (Cheung & Rensvold, 2002). Table 4 shows the results for each of the subscales. Equivalence is achieved if the models had good fit indices. Models with good fit had a RMSEA < .08 and CFI and TLI > .90 (Schermelleh-Engel, Moosbrugger, & Müller, 2003).

Table 4

Model Fit Information

Scale	Model	χ^2	df	CFI	TLI	RMSEA
Autonomy	Configural	63.31*	42	.94	.91	.06
	<i>Metric</i>	77.90*	54	.93	.92	.06
	Scalar	182.22*	66	.66	.68	.12
Relatedness	Configural	149.77*	60	.82	.75	.11
	<i>Metric</i>	228.04*	74	.70	.66	.13
	Scalar	339.19*	88	.51	.53	.15
Competence	Configural	117.69*	27	.68	.48	.17
	<i>Metric</i>	147.29*	37	.62	.54	.16
	Scalar	196.13*	47	.49	.51	.16
Job Satisfaction	Configural			Saturated		
	<i>Metric</i>	4.32*	4	.99	.99	.03
	Scalar	9.66*	8	.99	.99	.04
Increasing Structural Job Resources	Configural	38.40*	15	.94	.88	.11
	<i>Metric</i>	69.77*	23	.88	.85	.13
	Scalar	81.39*	31	.87	.88	.12
Decreasing Hindering Job Demands	Configural	236.15*	27	.65	.41	.25
	<i>Metric</i>	212.90*	37	.70	.64	.19
	Scalar	328.19*	47	.53	.55	.22
Increasing Social Job Resources	Configural	35.48*	15	.95	.90	.11
	<i>Metric</i>	45.41*	23	.95	.92	.1
	Scalar	92.97*	31	.86	.86	.13
Increasing Challenging Job Demands	Configural	34.39*	15	.95	.91	.10
	<i>Metric</i>	39.96*	23	.96	.95	.08
	Scalar	69.42*	31	.91	.91	.10

Note. Highlighted Cells indicate values below the acceptable ranges for the respective fit index.

* $p < 0.05$

The results of the analyses above (Table 4) show that JS reached scalar equivalence, and two of the JC dimensions (increasing social job resources and increasing challenging job demands) and one of the BNS dimensions (need for autonomy), reached metric equivalence. The rest of the variables did not reach configural equivalence - which indicates that they are not culturally equivalent across the three samples.

According to the results of the MGCFA, we hypothesized the paths shown in Figure 2 between the variables that proved to be at least metrically equivalent across Lebanon, India,

and the US. This allows us to investigate the relation of the invariant JC dimensions in relation to our hypothesized model in each cultural context.

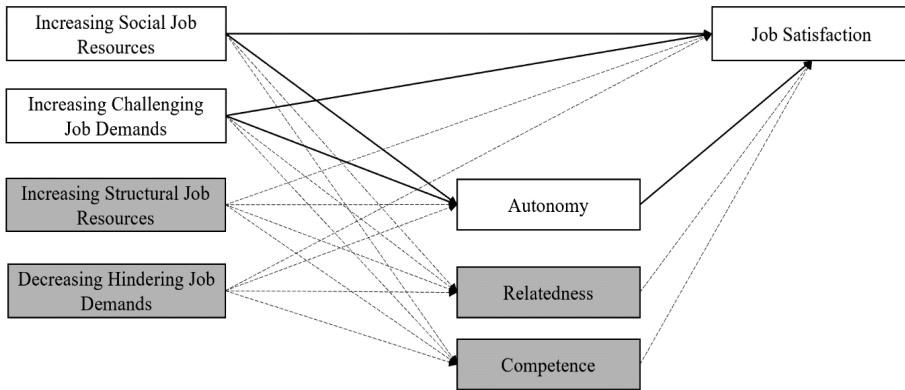


Figure 2. Theoretical Model. Greyed-out variables are variant and were removed from analysis. Dashed arrows indicate relationships between the variant variables, which cannot be tested.

Step 2: Test of the Conceptual Model

We tested the theoretical model (see Figure 2) using structural equation modeling (SEM) (Byrne, 2010), focusing on the paths between the variables that reached metric equivalence. Since assessing the role of context is our main purpose, we tested two models: (1) all the paths between the variables constrained to be equal and (2) all the paths between the variables allowed to vary across the three samples in order to account for the differences in the relationships across the different groups and to better judge cross-cultural differences and similarities of the structural relationships.

The results indicated that both models fit the data well. The model where the relationships between the variables across the three samples are constrained to be equal [$\chi^2(10, N = 359) = 12.062; p = 0.281, RMSEA = 0.042, 90\% CI: .000, .112, CFI = 0.982, TLI = 0.973, AIC = 1588.197, BIC = 1654.213$] and that where the paths are allowed to vary [saturated; $AIC=1593.95, BIC=1698.80$]. We provide the solutions in both models. Table 5

shows the estimates per model in each sample. Since the main aim of this research is to capture nuances across the different cultures and based on sound theoretical reasoning, we focus on the unconstrained model, which would help us better describe and understand our data.

Table 5

Estimates across Samples in Same Metric Model and in the Constrained Model

Path	Model 1: Same Metric Model			Model 2: Unconstrained Model		
	Lebanon	India	US	Lebanon	India	US
ISCR-AUT	0.05	0.06	0.06	0.06	0.13	0.01
ICD-AUT	0.24**	0.26**	0.25**	0.25*	0.17	0.31*
AUT-JS	0.40**	0.39**	0.48**	0.37**	0.44**	0.48**
ISCR-JS	0.16**	0.18**	0.21**	0.37**	0.12	0.14
ISCR-JS(IND)	0.02	0.02	0.03	0.02	0.06	0.00
ICD-JS	0.08	0.09	0.10	0.12	0.13	0.06
ICD-JS(IND)	0.10**	0.10**	0.12**	0.09	0.08	0.15*

Notes. ISCR=Increasing social job resources; AUT= Autonomy; ICD=Increasing challenging job demands; JS=Job satisfaction; IND=Indirect Effect.

** $P \leq 0.001$

* $P < 0.05$

Figure 3 shows the resulting empirical models per sample, where the different relationships and their estimates in each of the three models are displayed.

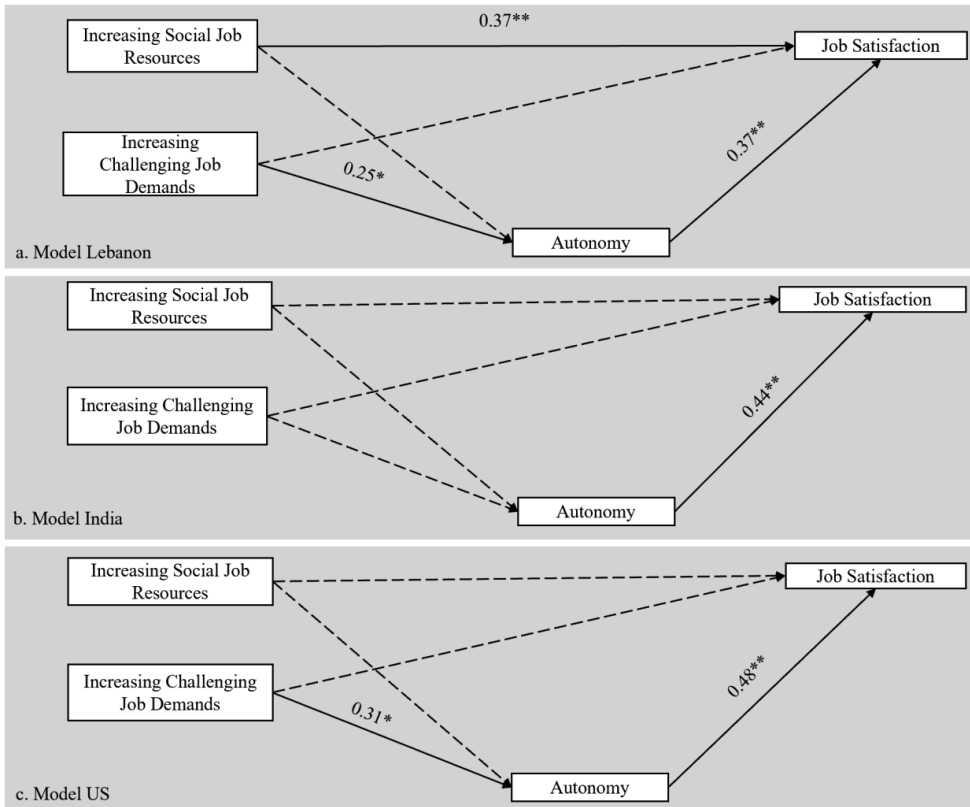


Figure 3. Empirical Models of the Lebanon (a), India (b), and the US (c).

** $p < .001$

* $p < .05$

According to the models shown in figure 3, in the Lebanese sample, there was a significant relationship between increasing challenging job demands and autonomy ($\beta = .25, p = .03$), increasing social job resources and JS ($\beta = .37, p \leq .001$), and autonomy and JS ($\beta = .37, p \leq .001$). In the Indian sample, there was a significant relationship between autonomy and JS ($\beta = .44, p \leq .001$), however, all the other variables in the model were unrelated ($p \geq .13$). In US sample, increasing challenging job demands was significantly related to autonomy ($\beta = .31, p = .003$) and autonomy was significantly related to JS ($\beta = .48, p \leq .001$). Also, there was a significant relation between increasing challenging job demands and JS through

Autonomy ($\beta = .15, p = .002$) which was not the case in neither of the two other samples (Lebanon and India).

Discussion

The most recent meta-analyses on JC (see Lazazzara et al., 2020) have not taken culture into consideration. Extant research on JC is limited to Western samples, which are “peculiar and literally ‘W.E.I.R.D.’ from a worldwide perspective”, requiring and “a careful analysis of the relevant social contexts” (Kitayama, 2017, p. 359). In order to move towards addressing this research gap, we set out to investigate the validity of the four-dimensional structure of JC. First, we tested the measurement invariance of JC, BNS, and JS in three different cultural contexts. Second, we learn about the function of JC by exploring the relations between the equivalent dimensions of JC, BNS, and JS among nurses. Our results indicate the tool used to measure JC is not valid across the different culture, which might indicate that JC is *not per se* a universal concept. Only two of its dimensions (increasing social job resources and increasing challenging job demands) were found to be invariant across the three samples in our study, and they related differently to the other variables in each context. Autonomy was the only basic need that was found to be equivalent across the three samples in our study. Using the equivalent variables only, we did find meaningful relations, indicating that increasing social job resources is related to JS only in Lebanon, and that increasing challenging job demands is positively related to autonomy only in Lebanon and the US, but not in India. Moreover, autonomy was found to be related to JS across all three samples and to partially mediate the relationship between increasing challenging job demands and JS in the US sample only.

Equivalence of Measures and Perspectives

We set out to assess empirically to what extent a widely used tool to measure JC and related constructs can be used across three culturally diverse samples. We see that parts of the JC scale emerge as invariant across the three cultural contexts, but we also find a number of items and subscales that cannot be considered invariant. In other words, measurement invariance across the total JC scale was not established. Ideally, next steps could include a combination of quantitative and qualitative measures to determine the breadth of JC as a construct in the different cultural contexts (see Leung & Van De Vijver, 2008, for the general reasoning about this procedure). Increasing social job resources and increasing challenging job demands appear to be universal (at least in the investigated samples), while the other two JC dimensions (increasing structural job resources and decreasing hindering job demands) appear to differ per context. This suggests that the investigated JC scale may not fully capture the construct across the assessed contexts.

In our study, we adopted an etic, culture-comparative approach to compare the measure of JC across cultures to address its universality, allowing us to assess the applicability of previously established tools in a top-down manner (Cheung, van de Vijver, & Leong, 2011; Pike, 1967). On the other hand, emic approaches are bottom-up, as they explore the construct from the perspective of the group or culture (Cheung et al., 2011). No study has adopted a culturally emic approach to JC yet. For example, Nielsen and Abildgaard (2012) developed and validated a scale that measures JC among blue-collar workers. Although their approach was not emic in terms of starting from the construct as defined by the specific culture, it was partly bottom-up. They used items that they adapted from Tims et al. (2012) JC scale and others that they developed based on the behavioral examples given by employees in the interviews that they conducted. Their results indicated the presence of five job crafting dimensions, which are increasing challenging demands, decreasing social job

demands, increasing social job resources, increasing quantitative demands and decreasing hindering job demands (Nielsen & Abildgaard, 2012). They attributed the different structure that they found to the characteristic of their sample. While such approaches are less common in organizational psychology, they have been widely adopted when developing for instance personality tools that capture the structure of personality in different cultures. For example, the psycholexical hypothesis is based on the idea that personality traits are present in natural language and hence can be identified via language lexicons (Ashton et al., 2004; Goldberg, 1992). Accordingly, bottom-up approaches adopted to develop personality structures and tools (e.g., the Arab Personality Inventory, API; the South-African Personality Inventory, SAPI; the Chinese Personality Assessment Inventory, CPAI) reached two main conclusions: while some personality traits were culture-specific, others were very congruent with the Five Factor Model that was developed in the western world (Cheung et al., 1996; Hill et al., 2013; Zeinoun et al., 2017). We argue that next steps should consider such bottom-up approaches also for JC: some aspects seem to be universal, while others may need to be explored from an emic, local perspective, and there may be aspects we cannot see yet because they are not tapped into with the etic tools used in the field. For example, the JC dimension of decreasing hindering job demands was found to be invariant, which might be due to two main reasons. First, this dimension is driven by prevention focus (Lichtenthaler & Fischbach, 2019) and previous research has found that that collectivistic cultures with high-power distance tend to be more prevention-oriented than individualistic cultures with low-power distance, as the latter tend to be more promotion-oriented (e.g., Lalwani, Shrum, & Chiu, 2009; Lee, Aaker, & Gardner, 2000; Zhang & Mittal, 2007).

Similar to what we envisage for JC, Organizational Citizenship Behavior (OCB), which shares many characteristics with JC since both work behaviors are employee-initiated without being mandated by the organization, has been shown to have emic (culturally

specific) and etic (comparative, universal) components (Farh, Earley, & Lin, 1997; Gelfand, Erez, & Aycan, 2007). The etic dimensions include altruism (including helping colleagues with organizationally relevant tasks or problems), conscientiousness (going beyond the minimum role requirements), and civic virtue (being involved in events related to the organization and staying abreast of the latest organizational changes). The two equivalent JC dimensions seem to be capturing the etic (universal) dimensions of JC. The emic dimensions focus more on courtesy (discretionary behavior aimed at preventing work-related problems with others) and sportsmanship (willingness to tolerate less than ideal circumstances without complaining).

When it comes to the BNS scale, our results indicated that the need for Autonomy is the only dimension that is equivalent across the three samples in the study. This finding is not in line with previous theoretical and empirical research on SDT. Central to the SDT is the assertion that the three basic needs for autonomy, relatedness, and competence are universal in their importance and effect, and that their satisfaction enhances psychological health regardless of the cultural context (Deci & Ryan, 2008). Individuals from different cultures can adopt different ways to satisfy those universal needs. This assertion has been supported by previous research, in which scales to measure the three basic needs were found to be equivalent in work and sports contexts (Brien et al., 2012; Vlachopoulos, 2008). Taking a closer look at the context and how the samples differ might help us better understand our results. Although the three samples differ in terms of how much they value and are sensitive to autonomy (Iyengar & Lepper, 1999; Uchida & Kitayama, 2009), they perceive the items similarly. This might be specific to the nursing profession where not being autonomous can become the main source of job dissatisfaction (Fung-kam, 1998).

Different Cultures, Different Relationships

After exploring the universality of JC and BNS, we moved on to investigating their functionality by understanding how they relate to each other and ultimately to the outcome variable, JS. We focused on understanding how these relationships are similar or different across the three samples in the study.

Overall JC and its dimensions have been shown to be positively related to JS (for a review check, Rudolph et al., 2017). Our results show that one of the JC dimensions (increasing social job resources) is related to JS, and this is the case only in the Lebanese sample. One reason could be related to the nursing profession in Lebanon, since nurses claim that having a poor supportive work environment is one of the major reasons driving them to leave Lebanon (Alameddine et al., 2020; El-Jardali et al., 2008). Engaging in JC to create this supportive environment might have an important relevance to the Lebanese nurse in particular. In collectivistic contexts, such as that of Lebanon, employees tend to internalize their supervisor's goals and value the advice that they receive (Triandis, 1995), which might explain the relationship with JS.

Second, JC was found to be *unrelated* to JS in India, which is not in line with previous findings (for a review check, Rudolph et al., 2017). A closer examination of the sample might help us better understand and explain this finding. Most of the nurses in the Indian sample (69.57%) have been in the organization for one to three years, this means that they might be at the early stages of their careers, or they have not been in the organization for too long. Some research has indicated that there is a non-significant association between personal initiative and tenure (Tornau & Frese, 2013). It might be the case that nurses with low organizational tenure, have a more passive role when it comes to their JS. They might engage in JC, but this does not influence their levels of JS, since the latter will be mostly influenced by how much the organization meets their expectations, needs, and preferences.

Another possible explanation might be that organizational-level factors are more predictive of employee satisfaction in India than individual-level initiatives. Previous research that examined predictors of JS among several samples, including India, showed that organizational efficiency and communication and employee support are the factors that predict JS the most in the Indian sample (Kwantes, 2010).

Finally, our results indicate that Autonomy *partially mediates* the relationship between increasing challenging job demands and JS *only* in the US sample. This result is expected since the US is a highly individualistic country and many of the work behaviors demonstrated by individuals from such a cultural context are driven by the need to fulfill one's self and to satisfy the need for autonomy. Job crafting might enhance the perception of personal control one has over their work, which in turn will facilitate the satisfaction of the need for autonomy (Slemp & Vella-Brodrick, 2014). Job crafting is way through which employees internalize their work behavior in order to achieve a match between these behaviors and their intrinsic (explicit) desires and preference and in turn experience enjoyment or satisfaction (Slemp & Vella-Brodrick, 2014).

Practical Implications

Our results indicate that engaging in JC behaviors, specifically increasing challenging job demands, might be advantageous since by doing so nurses would satisfy their need for autonomy, enhance their JS levels or both. These findings call human resource managers in healthcare organizations to provide nurses who have a high need for autonomy with opportunities to increase their challenging job demands and accordingly be more satisfied at work. Our results also indicate that although nurses suffer from high workload and a physically and emotionally demanding profession (Diefendorff et al., 2011), they find opportunities to volunteer and take on new projects as means to satisfy their need for autonomy which might help them in turn achieve higher JS. Human resource managers can

organize training workshops to help employees understand JC and what it entails. Moreover, “train the trainer” workshops can also be organized to inform supervisors about JC so that they know that it falls under good job performance, and support nurses who decide to engage in JC activities.

Another practical implication relates to the applicability of the JC scale developed by Tims et al. (2012), as the results of this study indicate that only two of the four JC dimensions reached metric equivalence. This means that scores on these sub-scales can be used for cross-cultural comparisons. Our results also indicate that the sub-scale measuring the need for autonomy was the only sub-scale in the BNS at work scale that reached metric equivalence, and thus can be used, to a certain extent, across cultures.

Limitations and Directions for Future Research

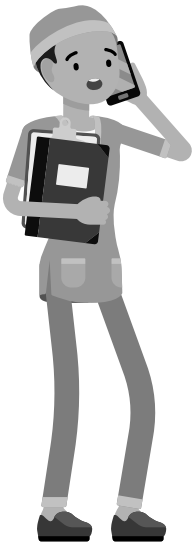
The results of this study should be interpreted while taking into account its limitations. First, our data is cross-sectional, and can therefore not examine the influence of JC over time or causality. Second, our sample selection was guided by Hofstede (1983)’s cultural assessment, but future research should consider individual-level endorsements and variability of cultural orientations (also within a single country). Third, while we find evidence for some dimensions to be equivalent across cultural contexts, this is no substitute for an alternative assessment grounded in emic, localized conceptualizations of JC (for a comparable argument regarding personality, see Cheung et al., 2011). This may also be necessary to understand why JC appeared to be entirely irrelevant among Indian nurses. Fourth, the reliability of the need of autonomy scale is very low in our samples, especially in the Indian one. Removing one item from the scale (“when I am at work, I have to do what I am told”, reverse coded), improves its reliability. For the purpose of this research, we included all the items in our analysis since our main aim was to assess the validity of the full scales. Future research should retest the reliability of the scale in different cultural contexts

and determine whether or not this item is consistently performing poorly (see supplemental material.2). Finally, in order to explore one of the possible underlying mechanisms behind the relationship between JC and JS, we proposed BNS. While motivation may certainly play an important role, it may be, however, that mechanisms underlying the link between JC and JS are not consciously accessible via typical self-reports of self-attributed need satisfaction. Future research could explore the role of implicit, unconscious motives for the relationship between JC and positive outcomes.

Conclusion

Henrich et al. (2010) proposed that one of the most powerful remedies for reducing the abundant focus on WEIRD research is to conduct more studies on non-WEIRD populations by non-WEIRD researchers. Our study is the first to assess the construct validity of job crafting in an aim to test its universality in non-WEIRD contexts. Our results indicate that job crafting is *not per se* a universal construct since only two of its four dimensions are equivalent across the three cultural contexts in the study (increasing challenging job demands and increasing social job resources). These equivalent dimensions also do not relate similarly to job satisfaction among nurses from the three different cultures. Job crafting appears related to positive work attitude, namely job satisfaction, for the Lebanese and American, but not the Indian context. The most commonly found link concerned the satisfaction of the need for autonomy, which was related to job satisfaction across all three samples. Yet, it partially mediated the relationship between increasing challenging job demands and job satisfaction only in the WEIRD American sample, which is in line with other studies from such contexts. We suggest that it is important for future studies to explore further mechanisms linking job crafting and job satisfaction and to consider more specifically which components are etic (and likely culturally equivalent) and which components are emic (and thus culturally variant) when assessing job crafting across cultural samples outside of WEIRD populations.

Chapter 3| Supplemental Material



Supplemental Material

1.Previous Research on the Validity of the Tims, Bakker, and Derks (2012) Job Crafting Scale in non-Western Contexts

A lot of research has been done around the topic of job crafting (for reviews, check Bruning & Campion, 2018; Lazazzara et al., 2020; Lichtenthaler & Fischbach, 2019; Rudolph et al., 2017), however, none so far has assessed its universality. Even the few studies that investigated the concept of JC in non-WEIRD contexts and samples (e.g., Bell & Njoli, 2016; Emamizadeh & Beveridge, 2018), adopted the JC scales developed based on western definitions of work and proactivity at work and using WEIRD samples (e.g., Tims et al., 2012).

Some studies have explored the reliability and validity of this scale in non-Western cultural context. For example, Eguchi et al. (2016) attempted to validate the Japanese version of the Tims et al. (2012) job crafting scale among sample of Japanese employees. Their confirmatory factor analyses revealed that the five-factor model fit the data better than the four-factor model. We decided to stick to the four-factor model proposed by the original JC scale to facilitate comparability of the research findings. Another study by Bakker, Ficapal-Cusí, Torrent-Sellens, Boada-Grau, and Hontangas-Beltrán (2018), revealed that the four-factor structure still holds in a Spanish sample. A recent study by Cheng, Ding, and Wang (2020) validated the four-dimensional structure of JC among Chinese nurses. This scale has also validated in a Turkish sample in a study that showed that the 21 items in this scale loaded on four factors and that the four-dimensional model has a good fit (Akın, Sarıçam, Kaya, & Demir, 2014). Chinelato, Ferreira, and Valentini (2015) assessed the structure of the JC scale among a sample of Brazilian employees and found that final instrument consisted of three dimensions (increasing structural job resources, increasing social job resources, increasing challenging job demands) instead of the theoretical suggested four. Additionally,

Vukelić, Petrović, and Čizmić (2021) provided evidence supporting the validity of the four-dimensional structure of JC in the Serbian context. Peral and Geldenhuys (2019) also performed a Rasch validation of Tims et al. (2012)'s 21-item scale in the South African context, and found that the scale is in fact multidimensional and that each of the four JC dimensions showed a good fit providing support for the validity and unidimensionality of each of the dimensions. Nielsen and Abildgaard (2012) developed and validated a scale that measures JC among blue-collar workers. They adapted some items from Tims et al. (2012) JC scale and developed new items based on the behavioral examples given by employees in the interviews. Their results indicated the presence of five job crafting dimensions, which are increasing challenging demands, decreasing social job demands, increasing social job resources, increasing quantitative demands and decreasing hindering job demands (Nielsen & Abildgaard, 2012). This JC scale introduced a new dimension: increasing quantitative job demands and dropped the dimension of increasing structural job resources.

To our knowledge, only one study has assessed the psychometric properties of the JC scale across samples that vary in socio-cultural terms. The structure that was tested was the five-dimensions one proposed by Nielsen and Abildgaard (2012) that includes: increasing challenging demands, decreasing social job demands, increasing social job resources, increasing quantitative demands and decreasing hindrance job demands. The results indicated that this scale shows acceptable scale and criterion validity, and test–retest reliability across the four samples (Spain, the United Kingdom, China, and Taiwan) (Nielsen, Antino, Sanz-Vergel, & Rodríguez-Muñoz, 2017). It is worth mentioning that when comparing the UK and the Spanish samples and the Chinese and Taiwanese samples separately as pairs, more invariance was achieved than while comparing them to each other (Spanish vs. Chinese or English vs. Chinese). However, the studies above reported their results without taking the influence of culture into consideration, and arguably the two European and the two Asian

contexts might share more cultural similarities affecting the obtained pairwise invariance pattern. We argue that this can be problematic because some evidence indicates that JC might be demonstrated in different levels in different cultures. A study conducted among Dutch and American healthcare workers attributed some of the differences between the two samples' engagement in JC to the fact that US and the Netherlands score similarly on all Hofstede (1983)'s cultural dimensions, except on the masculine versus feminine one, where they fall on the opposite ends (Fay & Sonnentag, 2010; Hofstede, 2001).

2.Reversed items and Differential Item Functioning

As mentioned in the limitations section in our study, the need for autonomy scale had a low reliability in the Indian sample ($\alpha = 0.410$). Removing one item from the scale (“When I am at work, I have to do what I am told”, reversed item), improves its reliability ($\alpha = 0.575$). Reversed items are usually used in order to reduce response style bias, which is the tendency for individuals to respond to items without reading what the context of the item (Nunnally, 1978; Paulhus, 1991). While this is desirable in general, reversed items also are more likely to pose problems in understanding, particularly when used across different cultural samples (Hambleton & Swaminathan, 2013; Muniz, Elosua, & Hambleton, 2013), as we outline below.

Reversed items can take two forms. The first includes negation so that the meaning of the item is changed without changing much of the text (e.g. “I consider myself a good person” vs “I do not consider myself a good person”). The second form includes including the opposite of the word or adjective in the item (e.g. “I consider myself a bad person”). Although reversed items reduce response style bias, many have advised against their use since they have disadvantages that might make their inclusion problematic. First, they go against one of most important pillars of item development: trying to avoid negative formulations of items as they tend to complicate them (Haladyna, Downing, & Rodriguez, 2002; Haladyna & Rodriguez, 2013; Lane, Raymond, Haladyna, & Downing, 2016). Moreover, the item and its reversed one are not always interpreted in the same manner. Researchers go as far to say that the two items are not cognitive processed in the same manner (Marsh, 1986, 1996). For example, the original aim of the problematic item in our case (“when I am at work, I have to do what I am told”) is to reflect how much autonomy the employee has or lacks. However, this item has another element embedded in it: another

person who is issuing orders. Perception of leadership might also play a role in interpreting this item.

Reversed items can be also more problematic in cross-cultural research when other elements come into play such as scale translation and adaptation. In their cross-cultural study in five European countries, Essau et al. (2012) analyzed the factorial structure of the Strength and Difficulties Questionnaire (SDQ). Their results indicated that removing the reversed items improved the model fit significantly in the entire sample and per each country.

In order to properly address this problem, future research should examine measurement equivalence at the item level by making sure that there is no differential item functioning (DIF). Item response theory (IRT) (Hambleton & Swaminathan, 2013; van der Linden & Hambleton, 2013), assumes that the validity of the responses of individuals on scale items, given their score on the latent variable can be captured by a monotonically increasing function called an item characteristic curve (ICC). According to the IRT, an item is said to have DIF (lacking measurement invariance) when the ICCs of the same item in different cultures differ by more than the sampling error (Hambleton & Swaminathan, 2013).

3. Scales Included in the Study

a. Basic Need Satisfaction at Work

1	2	3	4	5	6	7
Not true at all			Somewhat true			Very true

1. I feel like I can make a lot of inputs to deciding how my job gets done.
2. I really like the people I work with.
3. I do not feel very competent when I am at work.
4. People at work tell me I am good at what I do.
5. I feel pressured at work.
6. I get along with people at work.
7. I pretty much keep to myself when I am at work.
8. I am free to express my ideas and opinions on the job.
9. I consider the people I work with to be my friends.
10. I have been able to learn interesting new skills on my job.
11. When I am at work, I have to do what I am told.
12. Most days I feel a sense of accomplishment from working.
13. My feelings are taken into consideration at work.
14. On my job I do not get much of a chance to show how capable I am.
15. People at work care about me.
16. There are not many people at work that I am close to.
17. I feel like I can pretty much be myself at work.
18. The people I work with do not seem to like me much.
19. When I am working I often do not feel very capable.
20. There is not much opportunity for me to decide for myself how to go about my work.
21. People at work are pretty friendly towards me.

Autonomy: 1, 5(R), 8, 11(R), 13, 17, 20(R)

Competence: 3(R), 4, 10, 12, 14(R), 19(R)

Relatedness: 2, 6, 7(R), 9, 15, 16(R), 18(R), 21

b. Job Crafting

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

1. I try to develop my capabilities
2. I try to develop myself professionally
3. I try to learn new things at work
4. I make sure that I use my capacities to the fullest
5. I decide on my own how I do things
6. I make sure that my work is mentally less intense
7. I try to ensure that my work is emotionally less intense
8. I manage my work so that I try to minimize contact with people whose problems affect me emotionally
9. I organize my work so as to minimize contact with people whose expectations are unrealistic

10. I try to ensure that I do not have to make many difficult decisions at work
11. I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once
12. I ask my supervisor to coach me
13. I ask whether my supervisor is satisfied with my work
14. I look to my supervisor for inspiration
15. I ask others for feedback on my job performance
16. I ask colleagues for advice
17. When an interesting project comes along, I offer myself proactively as project co-worker
18. If there are new developments, I am one of the first to learn about them and try them out
19. When there is not much to do at work, I see it as a chance to start new projects
20. I regularly take on extra tasks even though I do not receive extra salary for them
21. I try to make my work more challenging by examining the underlying relationships between aspects of my job

Increasing structural job resources: 1, 2, 3, 4, 5

Decreasing Hindering Job Demands: 6, 7, 8, 9, 10, 11

Increasing Social Job Resources: 12, 13, 14, 15, 16

Increasing Challenging Job Demands: 16, 17, 18, 19, 20, 21

c. Job Satisfaction

1	2	3	4	5
Totally Disagree	Disagree	Neutral	Agree	Totally Agree

1. I am satisfied with my current work
2. Generally speaking, I'm really satisfied with my job
3. Usually, I really enjoy my work

Chapter 4| Job Crafting and the Dual-motives

System



This chapter is largely based on:

Ghazzawi, R., Chasiotis, A., Bender, M., & Daouk-Öyry, L., (*under preparation*). Up for the Challenge: Realizing your Self-regulated Power Motivation Through Job Crafting. *The Journal of Positive Psychology*.

Chapter 4

Up for the Challenge: Realizing your Self-regulated Power Motivation Through Job Crafting

Research on work motivation has long focused on how the job and work settings can influence employees. Recently however, the focus has shifted to trying to understand how employees influence their jobs (as a means of self-motivation) and *who* is more likely to do so. By redesigning and shaping their jobs, employees can create work environments in which they feel highly engaged and motivated. One of the job-shaping strategies that employees can adopt at work is job crafting. Job crafting is a set of creative work behaviors that employees engage in to create a fit between their needs and preferences on one hand and their job tasks on the other (Tims & Bakker, 2010). Many individual differences have been explored in relation to job crafting including five factor model of personality (e.g., Bell & Njoli, 2016), proactive personality (e.g., Bakker, Tims, & Derks, 2012), self-efficacy (e.g., Kanten, 2014; Tims, Bakker, & Derks, 2014), and more recently in relation to Higgins (1997) regulatory focus (e.g., Bruning & Campion, 2018; Lichtenthaler & Fischbach, 2019) in order to capture how individual temperaments and orientations influence job crafting behavior.

We know from recent evidence that employees craft their jobs by approaching favorable outcomes or avoiding unfavorable ones (Bruning & Campion, 2018; Lopper, Horstmann, & Hoppe, 2020), however, the motivation behind these tendencies has been so far only investigated at the explicit level. Individuals choose to approach or avoid certain goals depending on whether or not this will satisfy their motives (Elliot, 2006; Elliot & Church, 1997; Elliot & Sheldon, 1997). Based on these affectively-driven tendencies, individuals are driven towards positive stimuli and away from negative ones (McClelland, 1985b).

In the present study, we aim to partially answer Berg et al. (2013)'s call to incorporate employee motives in the job crafting concept, since motives are argued to be one of the most important personal characteristics that guide job crafting efforts. This will be done by examining the effects of self-regulated power motivation at the explicit and implicit levels motivation on one of the job crafting dimensions (increasing challenging job demands) in a sample of Lebanese nurses. Self-regulated power motivation is conceptualized as a subtype of the power motive, which reflects the need to assert one's self, make decisions, and express emotions, staying calm in the face of conflict, and understanding and properly dealing with negative emotions (Winter, 1991). This need in particular can be realized by changing one's situation and staying calm in the face of adversity (Baumann & Kuhl, 2020; Winter, 1973). We also investigate how the relationship between implicit and explicit self-regulated power motivation and job crafting influences work engagement and job satisfaction as outcomes.

Increasing Challenging Job Demands and Self-regulation

Using the job demands-resources theory (JD-R; Bakker & Demerouti, 2007), Tims and Bakker (2010) defined job crafting in terms of shaping job demands and job resources. Accordingly, they divided job crafting into two dimensions that revolve around crafting resources (increasing structural and social job resources) and two that revolve around crafting job demands (increasing challenging job demands and decreasing hindering job demands) (Tims et al., 2012). In this study we focus on one of the demands crafting dimensions (increasing challenging job demands) as the dynamic between job demands and amount of control that employees have at work has strong theoretical underpinnings (Hobfoll, Johnson, Ennis, & Jackson, 2003; Karasek & Theorell, 1990; Karasek, 1979). Although not explicitly stated, control falls under the umbrella of power motivation (controlling and influencing others), which is the core focus of this paper. The power motive is conceptualized as "a desire to influence, control, or impress others and, as a corollary, to receive acclaim or at least

recognition for these power-motivated behaviors” (Fodor, 2010, p. 3). The need for power or the power motive is most relevant for job crafting, especially since individuals are motivated to take initiative if they think that by doing so, they will gain control over the situation (Frese & Fay, 2001). We include in our investigation one of the approach job crafting job dimensions, since they have shown promising results in research so far (Lichtenthaler & Fischbach, 2019; Rudolph et al., 2017).

Increasing challenging job demands fall under the approach component of job crafting and are driven by an approach orientation (Bipp & Demerouti, 2015; Bruning & Campion, 2018; Lichtenthaler & Fischbach, 2019). The job crafting dimension of increasing challenging job demands revolves around expanding one’s job by taking on more tasks. Examples of this behavior are volunteering to take on new projects, doing extra tasks at work, and keeping abreast of work-related updates. Engaging in challenging job demands creates opportunities for growth and development (Cavanaugh, Boswell, Roehling, & Boudreau, 2000) and a problem-focused coping mindset in employees (Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010). Individuals who engage in this job crafting dimension focus on positive outcomes, are eager to expand their abilities, and know that they can handle more workload (Gorman, Yu, & Alamgir, 2010). Such an orientation requires a considerable amount of self-regulation. Bakker and Oerlemans (2019) argued that job crafting, in general, requires significant self-regulation. Motives are highly relevant for self-regulation; however, and it is still unclear how the self-regulated enactment of motives relates to job crafting.

The Dual-motives System

Motivation is conceptualized as a cognitive operation that is guided by two processes (Kuhl, 2000; McClelland et al., 1989; Schultheiss & Brunstein, 2010; Woike, 2008): one that is explicit (conscious) and another that is implicit (unconscious). Though they both determine human motivation, explicit and implicit motives are statistically unrelated (e.g., Baumann et

al., 2005; Hofer et al., 2010; Spangler, Tikhomirov, Sotak, & Palrecha, 2014), but function in parallel (McClelland et al., 1989). Ample evidence supports how different explicit and implicit motives are. For example, according to McClelland et al. (1989), implicit motives predict long-term spontaneous behavior, while explicit motives predict planned short-term behavior (e.g., Aydinli, Bender, Chasiotis, Cemalcilar, & Van de Vijver, 2014). Explicit and implicit motives also differ in terms of their developmental origins: implicit motives develop early in life through preverbal interactions with parents, explicit motives develop later in life through verbally mediated learning (McClelland et al., 1989; McClelland & Pilon, 1983). Additionally, explicit motives are sensitive to social-extrinsic incentives, while implicit motives are more sensitive to emotional- internal cues (Baumann, Kazén, & Kuhl, 2010; Bender, Woike, Burke, & Dow, 2012). Unlike implicit motives, explicit motives are accessible in the form of clearly communicated values (Elliot & Thrash, 2002; McClelland et al., 1989; Schultheiss, 2001). Explicit motives are usually measured using self-report tools, while implicit motives are measured using projective tools, since they are not consciously accessible to individuals (Chasiotis, 2015; McClelland et al., 1989).

Job crafting is a planned type of coping behavior (Berg et al., 2008) demonstrated in an organizational setting that is usually bordered by external incentives and expectations. This indicates that it is predicted by explicit rather than implicit motives, since the first predict planned, incentive-driven, short-term behaviors (McClelland, 1985a; McClelland et al., 1989). For example, individuals who score higher on the explicit and implicit power motivation are more likely to volunteer to help their colleagues or to decide to enroll in an online course to help them develop a certain skill. This will allow them to influence others and ultimately their own work.

Increasing Challenging Job Demands and Explicit Integrative Power Motivation

Different individuals seek to satisfy their explicit power motivation in different manners. One of the explicit power motivation facets that revolves around self and emotion-regulation is explicit integrative power. This facet of explicit power motivation views the person as an active component of emotion-regulation (Baumann & Kuhl, 2020). Being on this level of explicit motivation makes individuals less hesitant to take action and allows them to acknowledge the personal difficulties they are facing (Kuhl, 2000; Roth & Assor, 2010, 2012; Roth et al., 2018; Rothermund, Voss, & Wentura, 2008). Employees scoring high on this explicit power motivation facet might increase their challenging job demands in order to take control of their jobs and avoid feelings of alienation from it. Accordingly, we hypothesize that explicit integrative power motivation has a direct effect on increasing challenging job demands.

H1: Explicit integrative power motivation is positively related to increasing challenging job demands.

Motive Congruence and Increasing Challenging Job Demands

Goal directed behavior usually takes place as a function of an explicit (conscious) path governed by cognitive processes, and another that is implicit (unconscious) based on affective processes. Though they both determine human motivation independently (e.g., Baumann et al., 2005; Hofer et al., 2010; McClelland et al., 1989), they can sometimes align and become congruent. Motives are said to be congruent, when explicit and implicit motives direct towards the same incentives are both strong (Thrash & Elliot, 2002). For example, individuals who score high on implicit prosocial power motivation, but low on explicit prosocial power motivation might be involved in spontaneous acts of help but fail to organize their lives in ways that might allow them to capitalize on their prosocial motivation (see Aydinli et al., 2014).

To investigate the relationship between motive congruence and the job crafting dimension of increasing challenging job demands, we measure the implicit counterpart of explicit integrative power motivation: implicit self-regulated power motivation. This facet of implicit power motivation is characterized by the tendency to approach situations even though they might be challenging and possibly result in negative emotions (Kuhl & Scheffer, 2001b). Individuals who score high on this power motivation facet are equipped with a flexible, and creative way of coping with threats related to their power (Baumann & Kuhl, 2020). Individuals who score high on the implicit self-regulated power motive have higher self-regulatory abilities and can cope with their negative emotions and adapt their behaviors effectively in order to regain or maintain power.

Explicit and implicit motive congruence facilitates progress towards goals that are emotionally relevant which results in individuals experiencing positive affect (Brunstein et al., 1998). Positive affect is particularly conducive to proactive behaviors, such as job crafting because it leads to more flexible cognitive processes as well as feeling energized (Parker & Wu, 2014), can help improve flexible thinking (Derryberry & Tucker, 1994; Fredrickson, 1998, 2001) and shifts the attention of individuals to new possibilities and opportunities rather than limitations (Kimchi, 1992), which in turn can facilitate job crafting. Therefore, our second hypothesis is the following:

H2: Implicit self-regulated power motivation strengthens the positive effect of explicit integrative power motivation on increasing challenging job demands.

Motive-congruence and Positive Work Outcomes

Ample research has supported the positive influence that motive congruence has on wellbeing and health (Brunstein et al., 1998; Hofer & Chasiotis, 2003; Thrash, Cassidy, Maruskin, & Elliot, 2010). However, little is known about its influence on work-related outcomes such as work-engagement and job satisfaction. Job crafting has been shown to be

related to work engagement concurrently (e.g., Bakker, Demerouti, & Schaufeli, 2005) and over time (Mauno, Kinnunen, & Ruokolainen, 2007). A meta-analysis by Crawford, LePine, and Rich (2010) provide evidence that challenging job demands are positively associated with work engagement. We argue that individuals who score high on implicit self-regulated and explicit integrative power motivation and who engage in increasing challenging job demands will most likely experience high work engagement (*H3.a*).

Previous research has empirically demonstrated the relationship between work engagement and job satisfaction (e.g., Beek, Taris, Schaufeli, & Brenninkmeijer, 2013). Accordingly, we expect to find similar relationships and hypothesize that work engagement is positively related to job satisfaction (*H3.b*) and that nurses who score high on self-regulated power motivation at the implicit level and integrative power motivation at the explicit level (motive congruence/ interaction) and who engage in increasing challenging job demands, are more likely to have higher work engagement and as a result have higher job satisfaction (*H3.c*).

Job satisfaction has also been shown to be linked to job crafting as a single construct and to its dimensions (for a review, check Rudolph et al., 2017). Through job crafting, employees shape their demands and resources to satisfy their needs and preferences and increase their job satisfaction (De Beer et al., 2016). Moreover, a metanalysis by Podsakoff, LePine, and LePine (2007) indicated that challenging job demands were positively related to job satisfaction. Accordingly, we will hypothesize a direct positive relationship between increasing challenging job demands and job satisfaction (*H3.d*).

Method

Sample and Procedure

This study was conducted among a sample of nurses working in urban, rural, public, and private hospitals in Lebanon. After receiving ethical approval from the researcher's

institution in Lebanon and the Netherlands (reference numbers: OSB.LD.23/SBS-2017-0519 and EC-2017.EX54), we collected data from 482 nurses from 18 hospitals across Lebanon. The questionnaires were administered in Arabic after careful scale adaptation process conducted by bilingual researchers who are familiar with the language and culture (van de Vijver & Leung, 2000). The participants who took part in the study were enrolled in a draw. For every 50 participants, a draw for two \$25 and one \$50 prizes was held. Moreover, the participants were informed that for every survey collected, 1 US Dollar will be donated to the Children's Cancer Center of Lebanon (CCCL) and accordingly \$500⁴ were donated to the CCCL. The survey distribution plan went as follows: we first agreed with the hospitals on the number of surveys that they would be willing to distribute, and then delivered the agreed upon number of surveys. The 500 surveys that we distributed, we received 482 back (response rate: 96.4%). The demographic characteristics of the sample are presented in Table 1.

⁴ This amount was specified prior to data collection and was based on the number of surveys that were distributed.

Table 1

Demographic Characteristics

Characteristic - Mean (SD)	n	%
Gender		
Male	73	20.7%
Female	283	79.3%
Age - 32.01 (8.17)		
<20	4	1.11%
20-30	144	10%
31-40	102	28.33%
>40	41	11.39%
Religion		
Muslim	236	65.6%
Christian	99	27.5%
Druze	14	3.9%
Marital Status		
Single	130	36.1%
Engaged	27	7.5%
Married	181	50.3%
Divorced	11	3.1%
Widowed	3	0.8%
Place of Residency		
Beirut (Capital)	50	13.8%
Bekaa	117	32.5%
South	52	14.4%
North	47	13.1%
Mount Lebanon	86	23.9%
Family Income		
< \$1000	133	36.9%
[\$1000-\$2000]	140	38.9%
[\$2000-\$5000[66	18.3%
\$5000 or more	5	1.4%
Position		
Registered Nurse	266	73.9%
Practical Nurse	46	12.8%
Other nursing positions	34	9.4%
Highest Education		
Diploma in Nursing	47	13.1%
Baccalaureate ^a Technical (BT) in Nursing	46	12.8%
Technique Supérieure ^b (TS) in Nursing	51	14.2%

License Technique ^b (LT) in Nursing	75	20.8%
Bachelor of Sciences (BS) in Nursing	72	20.0%
Masters (MS) in Nursing	43	11.9%
Other	18	5.0%
Organizational Tenure - 8.66 (7.28)		
< 1 year	15	4.16%
1-5 years	122	33.89%
5.5-10 years	92	25.55%
11-20 years	76	21.11%
>20 years	27	7.5%
Position Tenure - 7.65 (6.40)		
< 1 year	13	3.61%
1-5 years	143	39.72%
5.5-10 years	96	26.67%
11-20 years	68	18.89%
>20 years	14	3.89%

Notes. a. Equivalent to the last year of high school.

b. Technical degrees.

Some numbers are less than 360 due to missing values.

Measures

Increasing challenging job demands. This job crafting sub-scale was measured using a scale that we adapted from the widely used scale by Tims et al. (2012). We developed this scale as part of a larger project on distinguishing instrumental and affective qualities of job crafting (see supplemental material). The items under this sub-scale were adapted in a manner that gears them more towards the explicit motivational system, which is strongly influenced by social norms and interactions by highlighting their instrumentality (Koestner, Weinberger, & McClelland, 1991; McClelland, 1985a). We added an anticipation of a reward such as getting a promotion or attaining a desirable position at work. The final scale consisted of five items, example items are “When there is not much to do at work, I see it as a chance to start new projects to enhance my abilities” and “When an interesting project comes along, I proactively offer myself to enhance my portfolio/ resume”. All items were scored on a five-point scale (ranging from 1 (*never*) to 5 (*very often*)).

Implicit Self-regulated Power Motivation. We measure implicit motives using the Operant Motive Test (OMT; Kuhl, 2013; Kuhl & Scheffer, 1999; see Figure 1), which is inspired by the classical Thematic Apperception Test (TAT; Morgan & Murray, 1935). The TAT has been shown to be a reliable and valid method to measure implicit motives (Schultheiss & Pang, 2007; Slabbinck, De Houwer, & Van Kenhove, 2013). The OMT allows us to study motives and the way individuals realize them concurrently (Kuhl & Scheffer, 1999). It expands the classical distinction between approach and avoidance and further delineates four approach components and one avoidance component for each motive based on a matrix that has the two affective sources of motivation (positive and negative) crossing with self-regulated versus incentive-focused regulatory processes (Baumann et al., 2010). The OMT we used consisted of 12 pictures portraying individuals in vague situations. Participants are first asked to choose a main character, and answer the following questions related to this main protagonist: “What is important for the person in this situation and what is he/she doing?”, “What are the person’s feelings?”, and “Why does the person feel this way?”. The Operant Motives Test has two main advantages over other variants of the TAT. First, the respondents are asked to provide shorter answers compared to stories as in the TAT, which makes it faster for the respondents to answer and for the coders to code. Second, the OMT introduces five additional levels of emotional valence related to the three main motives (Affiliation, Achievement, and Power), which provides further differentiation in affect between participants (Kuhl, 2013; Kuhl & Scheffer, 2001a).

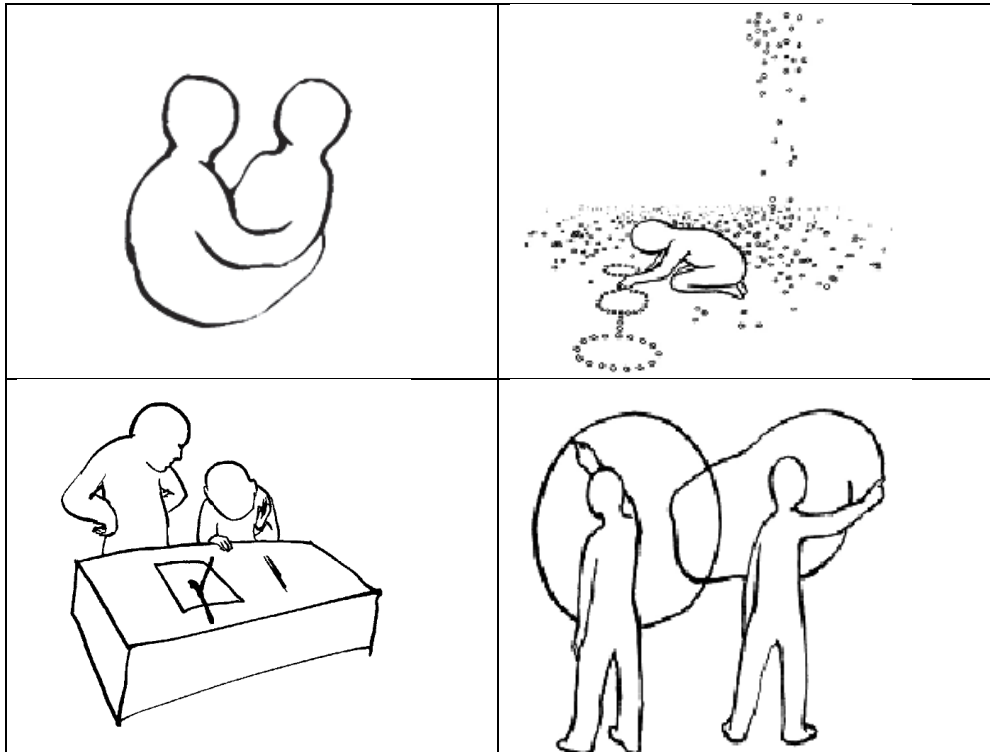


Figure 1. Examples of OMT pictures

Note. Participants were asked to answer three open questions “What is important for the person in this situation and what is he/she doing?”, “What are the person’s feelings?”, and “Why does the person feel this way?”(Kuhl & Scheffer, 1999)

The OMT coding procedure starts by checking for the presence of motive imagery (affiliation, achievement, power), otherwise, a “zero” is coded, indicating no motive imagery. After determining the motive content, the coder determines the realization of this motive according to the five enactment strategies (Kuhl & Scheffer, 1999). If approach behavior is present, then the coder uses levels 1 to 4, if avoidance behavior is present, the coder uses level 5. This last level is a combination of negative affect and passivity. The next step is to check for the affect that is guiding this behavior. Levels one and two are guided by positive affect, with level one being intrinsically driven and self-regulated, and the second level being more incentive driven. The third and fourth levels are guided by negative affect,

with the third level describing a more self-regulatory way of coping with negative emotions, and the fourth level an incentive-driven way to reduce negative affect (Baumann et al., 2010; Kuhl & Scheffer, 1999; Kuhl, Scheffer, & Eichstaedt, 2003). The fifth level describes being overpowered by negative affect like fear, guilt, or loneliness that hinders self-regulatory abilities (Kuhl, 2001). For the purpose of our investigation, we focused on the third level of the power motivation in the OMT. Coding the answers was conducted by the first author who is bilingual (English, Arabic), and underwent coding training with the second author until the percentage of agreement between the trainer and the trainee reached more than 80%.

Explicit Integrative Power Motivation. To measure explicit motives, we used the integrative power subscale from the Motive Enhancement Test (MET; Kuhl, 1999) since it portrays power in a proactive manner. This sub-scale comprises four items to which the participants were asked to rate the extent to which the statements apply to them on a four-point Likert scale ranging from 1 = applies not at all 4 = applies completely. Example items are “I feel that most of the time I can speak my mind” and “During arguments, I can often think of ways to get the other person to agree with me”. A total score of integrative power motivation was calculated by using the mean score of these items.

Work Engagement. To measure work engagement, we used the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003; Schaufeli, Salanova, González-Romá, & Bakker, 2002). The UWES is a 17-item self-report instrument that measures the three subdimensions of work engagement: dedication, absorption, and vigor. Examples of items include “At my work, I feel bursting with energy” and “I find the work that I do full of purpose and meaning”. Participants answered using a seven-point Likert scale, ranging from (0) “never” to (6) “every day”.

Job Satisfaction. In order to measure job satisfaction, we used the three-item scale developed by Tims et al. (2013). Example items are “I am satisfied with my current work”

and “Generally speaking, I’m really satisfied with my job”. Participants were asked to respond using a 5-point Likert scale ranging from 1 (*totally disagree*) to 5 (*totally agree*).

Results

For the purpose of the analysis, we first excluded 119 participants, since they had more than three missing values in the implicit motives measure (out of 12). We then removed three more participants, since they had surveys with missingness rates higher than 25%, to reduce bias (Tabachnick & Fidell, 2012). The final sample size of the study was 360.

Before testing the hypotheses of the study, we report on the construct validity of the scales that we use. Using Confirmatory factor analysis (CFA), we checked the structure of explicit integrative power motivation, increasing challenging job demands, work engagement, and job satisfaction stands. We then move on to testing the hypothesized relationships between the variables. We first test for the direct effects of implicit self-regulated and explicit integrative power motivation on increasing challenging job demands, then we check whether there was an interaction effect using moderation analysis. Finally, we test a model that includes the hypothesized direct and indirect relationships between implicit/explicit motive interaction as the antecedent, increasing challenging job demands as the mediator, and work engagement and job satisfaction as outcome variables. The results are explained below.

Step 1: Assessing the reliability and validity of the scales

When assessing the reliability scores of the scales, all of them had good reliability scores (ranging from 0.79 to 0.94) except for the explicit integrative power motivation scale ($\alpha = 0.443$; for discussion, see limitations section). We then ran a confirmatory factor analysis (CFA) on Mplus (Muthén & Muthén, 2012) per each scale used in this study. The model fit was evaluated using Chi-square tests, Tucker-Lewis index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). All the subscales had satisfactory model fit information (see Table 2).

Table 2

CFA Model Fit Information

Scale	χ^2	RMSEA	90% CI	CFI	TLI
Increasing Challenging Job Demands	9.463	.056	.000, .110	.988	.976
Job Satisfaction	Model Saturated				
Work Engagement	259.977	.071	.060, .082	.956	.943
Explicit Integrative Power Motivation	3.657	.027	.000, .106	.986	.972

Note. χ^2 = Chi-squared; df = Degrees of Freedom; RMSEA = Root mean square error of approximation; CFI = Comparative fit index; TLI = Tucker Lewis index; AIC = Akaike information criterion; BIC = The Bayesian information criterion.

Step 2: Structural Equation Model

Based on the codes generated from the OMT, we used the score of the third level of the implicit power motive (implicit self-regulated power). This score is binary, which means that “1” indicates that the participant had at least one implicit self-regulated power code, while “0” indicates that the participant has none. Descriptive statistics for the outcome variable “increasing challenging job demands” showed that the distribution is relatively normally distributed, since it was approximately within the -0.5 and 0.5 range (skewness = -0.45). Hence, we did not transform the data. Descriptive information is presented in Table 3.

Table 3

Means, Standard Deviations, and Zero-Order Correlations.

Variables	<i>M (SD)</i>	1	2	3	4	5
1. OMT-Self-regulated Implicit Power Motivation	-	-				
2. MET-Integrative Explicit Power Motivation	2.74 (.60)	.115*	(.44)			
3. Job crafting-Increasing Challenging Job Demands	3.79 (.69)	.112*	.349**	(.79)		
4. UWES-Work Engagement	4.52 (1.14)	.040	.332**	.473**	(.94)	
5. Job Satisfaction	3.75 (.80)	.029	.206**	.323**	.651**	(.84)

Note. Values on the diagonal in parentheses are alpha coefficients. OMT= Operant Motives test; MET= Motive Enactment Test; UWES= Utrecht Work Engagement Scale; *M* = Mean; *SD* = Standard Deviation. OMT-Self-regulated Implicit Power Motivation is a binary dummy variable, 64.7% of the values were “0”, and 35.3% were “1”.

* < .05. ** < .001.

For the purpose of this analysis and in order to test our hypotheses, we used structural equation modeling (SEM) (Byrne, 2010) on Mplus. This allowed us to model the relationships between the variables in the study and test for the main effects and the interaction effects. We tested the theoretical model (model a. in Figure 2). All the variables in the model were observed ones that predict the items. The interaction between explicit integrative power motivation and implicit self-regulated power motivation was modeled as one observed variable in the model. Direct paths were modeled between the interaction variable, explicit integrative power motivation, implicit self-regulated power motivation, and increasing challenging job demands and between increasing challenging job demands, work engagement (as one factor) and job satisfaction. No direct paths were drawn between motives and the outcome variables. We also tested for indirect effects through work engagement and increasing challenging job demands on job satisfaction.

The results indicated that the model fit the data very well ($\chi^2(6, N = 288) = 9.013; p = .173$, RMSEA = .042, 90% CI: .000, .094, CFI = .988, TLI = .975, AIC = 1938.729, BIC = 1982.685). Figure 2, model b. shows the resulting empirical model where the relationships and their estimates are displayed. Results revealed a significant positive direct effect of explicit integrative power motivation on increasing challenging demands ($\beta = .18, p = .04$), and a non-significant direct effect from implicit self-regulated power on increasing challenging demands ($\beta = .09, p = .09$). As hypothesized, there was a significant interaction effect on increasing challenging job demands ($\beta = .16, p = .03$). Simple slope analysis (see Figure 3) showed that implicit self-regulated power motivation strengthens the positive relationship between explicit integrative power motivation and increasing challenging job demands. This indicates that congruence between explicit integrative power motivation and implicit self-regulated power motivation promotes the engagement in increasing challenging job demands.

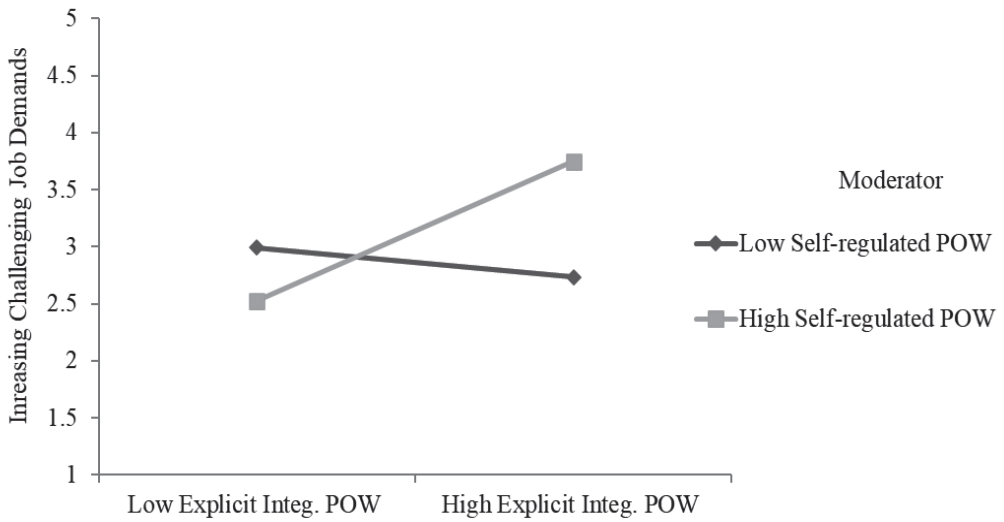


Figure 3. Level of Increasing Challenging Job Demands and its relationship with the association between explicit and implicit power motivation.

Note. POW= Power Motivation; Integ.= Integrative.

According to the model b. shown in Figure 2, there was a significant relationship between increasing challenging job demands and work engagement ($\beta = .49, p = .00$), and work engagement and job satisfaction ($\beta = .63, p = .00$). However, there was no significant relationship between increasing challenging job demands and job satisfaction ($\beta = .05, p = .36$). The results also indicated that there was an indirect effect of the motivational interaction on work engagement through increasing challenging job demands ($\beta = .08, p = .03$). Moreover, there was a

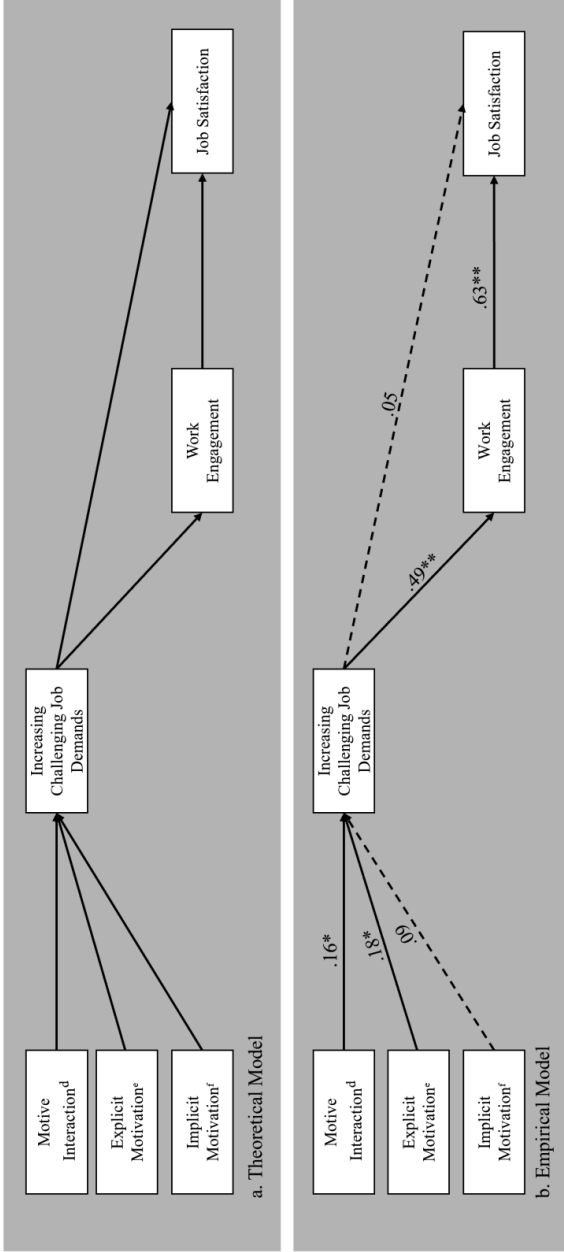


Figure 1. Theoretical and Empirical Models

Notes. Model fit information: $\chi^2(6, N = 288) = 9.013; p = .173, RMSEA = .042, 90\% CI: .000, .094, CFI = .988, TLI = .975, AIC = 1938.729, BIC = 1982.685$. d. The interaction term between implicit self-regulated power motivation and explicit integrative power motivation. e. explicit integrative power motivation. f. implicit self-regulated power motivation. The dashed arrow indicates a non-significant pathway. $** p < .001. * p < .05$.

significant indirect effect of the motivational interaction on job satisfaction through increasing challenging job demands and work engagement ($\beta = .05, p = .03$). Finally, there was a significant indirect effect of increasing challenging job demands on job satisfaction through work engagement ($\beta = .31, p = .00$). These results are discussed below.

Discussion

In this study we set out to understand the motivational story behind job crafting that has been argued to be a proactive work behavior driven to satisfy basic human needs and motives (Wrzesniewski & Dutton, 2001). We combined theoretical approaches from the fields of motivation (McClelland, 1985a) and work behavior (Bakker & Demerouti, 2007), to enhance our understanding of the relationship between motivation and the shaping of job demands at work. Our results confirm how unconscious motives can serve as antecedents of job crafting, and therefore add to the findings on the relationship between individual differences and job crafting (see, Rudolph et al., 2017).

The results indicated that explicit integrative power motivation had a positive and direct effect on increasing challenging job demands and that this effect was amplified when congruent implicit self-regulated power motivation was high. As hypothesized, increasing challenging job demands fully mediated the relationship between motive congruence and work engagement which was ultimately related to job satisfaction.

Increasing Challenging Job Demands and Self-regulated Implicit and Explicit

Motivation

Although taking on challenging tasks might overwhelm the employee and deplete his or her energy, successfully completing those challenges can make them feel in control. However, not everyone is able to approach challenging tasks in a comfortable and mature manner. The results of the study indicate that mature power motive realization (self-regulated and integrative) at both the explicit and implicit level influence the manner by which

employees choose to shape their jobs in order to make it better matching with their needs and preferences. Explicit integrative power motivation helps individuals overcome challenges. Our results show that individuals who score high on explicit integrative power motivation are more likely to increase their challenging job demands and that this effect becomes stronger when they also have high implicit self-regulated power motivation. This finding is in line with the channeling hypothesis (Bing, LeBreton, Davison, Migetz, & James, 2007; Brunstein & Maier, 2005; Winter, John, Stewart, Klohnen, & Duncan, 1998). According to the channeling hypothesis, there are many ways in which implicit dispositions can be expressed and that explicit dispositions shape and channel the manner by which implicit dispositions are expressed in behavior.

This investigation provides empirical evidence supporting the relationship between self-regulation and job crafting. Although we do not separately assess self-regulatory abilities, they are included, since the OMT measures the extent to which self-regulatory processes are incorporated into motive representations within the self (Baumann & Kuhl, 2020). Bakker and de Vries (2020) argued that job crafting is a form of self-regulated adaptive work behavior that employees engage in that can serve as a buffer against burnout. Our results suggest that self-regulated motive enactment at the explicit and implicit levels is conducive for increasing challenging job demands. We also provide insight into this buffering mechanism as motive-congruence was found to enhance work engagement through job crafting.

Increasing Challenging Job Demands and Motive Congruence

Our results indicate that when implicit and explicit power motivation are congruently directed towards achieving the same goals (Brunstein, 2018; Brunstein & Maier, 2005), i.e. when employees are able to deal with their emotions in a mature manner at work, and they are also implicitly driven to cope with negative situations at work, individuals are more likely

to increase their challenging job demands. Motive-congruence promotes the experience of positive affect (Brunstein et al., 1998), which can promote flexible thinking (Derryberry & Tucker, 1994; Fredrickson, 1998, 2001) that is focused on new possibilities and opportunities rather than limitations (Kimchi, 1992). In specific, self-regulation facilitates problem solving that is directed towards reducing the gap between the current state of the individual and a desired state (Karoly, 1993). Being constantly engaged at work and is a state of activation is very desired at work. According to the activation theory (Scott, 1966), individuals are motivated to maintain their level of activation by engaging in behaviors that stimulate them in various contexts (Fiske & Maddi, 1961). Scott (1966) added that the complexity of the task being performed increases the activation effect it has on the individual. With self-regulated motive congruence as a prerequisite, employees engage in job crafting behaviors, namely, increasing challenging job demands, to boost their level of activation at work and as a result feel more engaged and satisfied (see also: van Hooff & van Hooft, 2014; van Tilburg & Igou, 2012).

Increasing Challenging Job Demands and Work Engagement

Ample evidence supports the positive influence that congruence between the explicit and implicit motive systems has on health and wellbeing (Brunstein et al., 1998; Hofer & Chasiotis, 2003; Hofer, Chasiotis, & Campos, 2006; Schüler, Baumann, Chasiotis, Bender, & Baum, 2019; Thrash et al., 2010). In this study, we extend this finding by empirically showing that motive congruence has positive influence beyond the personal lives of individuals to enhance their work motivation and satisfaction. Employees who feel that their jobs are congruent with their views of themselves tend to feel more engaged at work (Rich, Lepine, & Crawford, 2010). In most cases, these views are better represented in unconscious systems that we do not have direct access to and giving them the chance to be channeled through conscious systems and relevant behaviors can yield positive outcomes. Through job

crafting, employees align their jobs with their needs and preferences, which in turn increases their work engagement (Bakker et al., 2012). We also show that personal resources such as motive congruence have a role in enhancing work engagement and ultimately increase job satisfaction among employees. This adds to the evidence on the widely supported benefits of congruence between the explicit and implicit motivational systems (for recent overviews, Chasiotis, Hofer, & Bender, 2021; Schüler et al., 2019).

Unlike what we expected and what previous research has shown, increasing challenging demands was not directly related to job satisfaction, however, it was linked to job satisfaction through work engagement. It might be the case that taking work motivation (work engagement) into account explains the underlying mechanism that links increasing challenging job demands to job satisfaction. Research has shown that stimulating and challenging job tasks positively influence employee motivation (Crawford et al., 2010; LePine et al., 2005), which in turn might influence job satisfaction. Our results include important theoretical and practical implications on the phenomenon of job crafting.

Practical Implications

Previous research has indicated that it is critically important to understand work engagement in nursing, the largest health professional group (Antoinette Bargagliotti, 2012). This is particularly important since recent research shows how work engagement can serve as a protective strategy against the psychological distress that healthcare professionals might be subjected to in critical situations characterized by uncertainty and the scarcity of resources, such as the COVID-19 pandemic (Gómez-Salgado et al., in press). Our results indicate that nurses who score high on implicit self-regulated power motivation, as measured by the OMT, are more likely to engage in job crafting and as a result feel more engaged and satisfied at work. Healthcare organizations can use the OMT to select nurses based on their implicit motives knowing that this would positively influence their wellbeing at work. Recently, there

has been a call to generate more human resource management-centric literature on projective tests (Carter, Daniels, & Zickar, 2013). The fact that these tests can be time-consuming and expensive makes them less practical to use (Rieger, 1949). However, some efforts can be made to make them more easily administered such as including multiple choice answers and using computer-based testing.

Limitations and Future Research Directions

This study has some limitations that should be acknowledged. The first limitation of our research is that the scale that we used to measure explicit integrative power motivation had a low reliability in our sample, although it showed an adequate structure in our CFA. Many reasons could have contributed to the low reliability of this scale. First, we collected data from a sample of nurses from a non-WEIRD (Western, Educated, Industrialized, Rich, and Democratic) population (Henrich et al., 2010) using scales that were developed in a Western context, which might have influenced the psychometric properties of the scales. Many scales, such as this one, have been developed without ensuring that the constructs that were created in WEIRD populations are applicable in non-WEIRD contexts. Individuals from different cultural backgrounds have different experiences and assumptions that might cause them to interpret words and phrases, scale items, or sometimes the entire scale differently (He & van de Vijver, 2012; Leung & Van De Vijver, 2008; van de Vijver & Leung, 1997). The alpha reported by the original developers of the scale was satisfactory ($\alpha=0.70$) (Kuhl, 1999), however, it is at the lower limit of the acceptable range of internal consistency scores, therefore making its use in a non-WEIRD sample more threatening to its internal consistency. The second reason is related to problems with the conditions that need to be satisfied for the Cronbach alpha to be an accurate estimation of reliability. One of those conditions is unidimensionality, which is when the item responses are independent after controlling for a single latent factor (Reise, Morizot, & Hays, 2007) or when all the items load onto a single

factor in a factor analysis. The problem with this condition is that in social sciences, item response matrices are rarely perfectly unidimensional (Reise et al., 2007). The complexity of the constructs being measured makes it necessary to enrich the content of the items being used to better capture the construct (Reise et al., 2007; Teo & Fan, 2013), which might influence the unidimensionality of the scale. For example, the developers of the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann Jr, 2003) claimed they sacrificed the internal consistency of their inventory and sought to maximize content validity and breadth of coverage, while avoiding redundancy. Thus, it is not surprising that the TIPI has an internal consistency lower than other similar tools (Romero, Villar, Gómez-Fraguela, & López-Romero, 2012). The third reason is that the low reliability score might be related to the length of the scale as it is a short four-item scale. Kline (2013) has questioned the use of the alpha coefficient for very short scales and some authors have suggested that low reliability scores are expected in short scales (Sprecher et al., 1994). In extreme cases, such as single-item scales, traditional tools that rely on internal consistency cannot be adopted and are therefore not presented (Cheung & Lucas, 2014). Cronbach's can be a problematic estimate of reliability for short scales, making their reliabilities lower (e.g., test– retest, internal consistency) than long scales, but still satisfactory (Ziegler, Kemper, & Krueger, 2014). Future research should test the equivalence of this scale across samples that differ across socio-cultural characteristics.

The second limitation of the present research is that all the data were collected from a single source (i.e. the same individual filled out the entirely self-report survey), which makes it prone to common method variance. This might have inflated the observed correlations between the variables in our study artificially, might have limited our perspective and consequently the results and conclusions of this study. We partially addressed this issue by adopting a multimethod approach to assessing motive as we used a projective technique to

measure implicit motives. Implicit measures have been shown to be more resistant to validity threats such as socially desirable answers (Carter et al., 2013; Uhlmann et al., 2012). Future research should however still try to incorporate multi-source data collection strategies that involve direct nursing supervisors and colleagues in order to get better-informed conclusions.

The third limitation related to this research is that although we included two outcome variables in this study (work engagement and job satisfaction), they were limited to job attitude and wellbeing. We did not collect further data, for instance on objective performance and absenteeism. Future research could replicate and extend our study by including data about the performance of nurses to investigate the influence of motive-congruence on actual performance.

The final limitation is that our study is cross-sectional by design, which prevents us from making clear conclusions about the directionality of the relationships between the variables. Although we argue that motive congruence can serve as prerequisite for engaging in increasing challenging job demands, it might also be the case that engaging in this job crafting dimension is a self-regulatory strategy that enhances motive congruence (Brunstein, 2001; Thrash & Elliot, 2002). Moreover, it might also be possible that nurses who feel engaged at work increase their challenging job demands, and as a result enhance the alignment between their implicit and explicit motives. Future research should adopt a longitudinal design to investigate the relationships in our study over time in order to make more informed conclusions.

Conclusion

Our study expands the evidence available in the literature on how employees can influence their work environments to make them better matching with their needs and preferences. Our results indicate that employees who score high on explicit integrative power motivation are more likely to engage in increasing challenging job demands at work and that

this relationship becomes stronger when implicit self-regulated power motivation is high. We also show how increasing challenging job demands mediates the relationship between the congruence between implicit self-regulated and explicit power motivation and work engagement that is consequently positively linked to job satisfaction. Employees have a lot of influence on their jobs, however, those who know that they can cope with negative emotions and scenarios should they arise are the ones who are more likely to increase their challenging job demands at work. They are even better able to cope when their unconscious motives are aligned with this ability to regulate negative emotions and overcome them. Taking on challenging job demands and successfully completing them allows individuals to feel more engaged at work and eventually more satisfied with their jobs. In the nursing context, this benefits the work wellbeing of the nurses, which also enhances patient care.

Chapter 4| Supplemental Material



Supplemental Material

The table below outlines the items that belong to the job crafting dimension of increasing challenging job demands developed by Tims, Bakker, and Derks (2012) and their corresponding items that were adapted in a way to either highlight an instrumental or an affective orientation. Only the adapted items were used in the study.

Original and Adapted Job Crafting Items and their Corresponding Orientations

Original Item	Adapted Item	Orientation
When an interesting project comes along, I offer myself proactively as project co-worker	When an interesting project comes along, I proactively offer myself to enhance my portfolio/ resume	Instrumental
	I enjoy proactively offering myself when an interesting project comes along	Affective
If there are new developments, I am one of the first to learn about them and try them out	I am always the first one to try new developments out to enhance my skills	Instrumental
	I enjoy challenging myself by trying new developments out	Affective
When there is not much to do at work, I see it as a chance to start new projects	When there is not much to do at work, I see it as a chance to start new projects to enhance my abilities	Instrumental
	I am always eager to start new projects when there is not much to do at work because I dislike feeling idle	Affective
I regularly take on extra tasks even though I do not receive extra salary for them	I take on extra tasks because this is part of my performance appraisal	Instrumental
	I enjoy taking on extra tasks at work	Affective
I try to make my work more challenging by examining the underlying relationships between aspects of my job	I try to understand how my work tasks are related to one another	Instrumental
	I enjoy finding out how my tasks at work are related to one another	Affective

Chapter 5| Discussion and Conclusions



Chapter 5

Discussion and Conclusions

This research sought to paint a clearer picture of the employee who engages in job crafting by investigating the individual- and contextual-level determinants of job crafting in the context of healthcare. In this dissertation, I focus on the nursing profession with an aim to inform research and practice on ways to promote their personal and work wellbeing. Accordingly, I set out to investigate how the nurses' personal characteristics such as creativity, personality, basic need satisfaction, and their dual-motivational systems and their work characteristics, such as job autonomy, relate to job crafting behaviors and as a result influence their job satisfaction, work engagement, and subjective well-being. The goals of this research are aligned with three of the main defining features of job crafting, which are that it is (1) a set of creative work behaviors, (2) sparked by motivation, and (3) a Western concept that adopts an agentic view of employees assumed to be universal.

The hypotheses of this dissertation were investigated with three cross-sectional studies, one of which was a cross-cultural one that involved nursing samples from Lebanon, India, and the United States. Using empirical research designs these studies highlight how different individual factors (personality, creativity, basic needs, and dual-motivational system) and different work conditions (job autonomy) can influence the engagement in proactive work behavior (job crafting) and as a result influence the work well-being and attitude of employees as well as their personal well-being. This dissertation provides the following answers to the previously proposed research questions:

Answering the Research Questions

Answering RQ1: *Is job crafting empirically related to creativity?*

This research question was addressed in chapter 2 with a cross-sectional study. I collected data from 547 Lebanese nurses working in urban, rural, public, and private hospitals across Lebanon. Using structural equation modeling (SEM), I tested a model that has self-reported creativity, job autonomy, and the seven personality dimensions of the Arab Personality Inventory (API; Zeinoun et al., 2017): honesty-integrity, conscientiousness, agreeableness, intellect, conventionality, emotional stability, and extraversion as antecedents of the approach dimensions of job crafting (increasing challenge job demands, increasing social job resources, and increasing structural job resources) in order to test their relationship with the subjective well-being of nurses. For the purpose of this study, I decided to focus on the approach dimensions of job crafting and leave out the avoidance dimension of decreasing hindering job demands as evidence on the benefits of this dimension has been inconsistent so far (for a review, check, Rudolph et al., 2017). Moreover, recently, Hu et al. (2020) argued that job crafting involves behavior that has a positive attitude and accordingly, avoidance behavior should be removed from the concept of job crafting in order to enhance the component validity of job crafting as an adaptive work behavior. The study's results indicated that creativity is empirically linked to the approach dimensions of job crafting. Moreover, nurses who score high on agreeableness, conscientiousness, and intellect are more likely to engage in job crafting. I also highlighted the role of job crafting further by showing that it fully mediates the relationship between agreeableness, conscientiousness, intellect, job autonomy, and subjective well-being, while partially mediates that between creativity and subjective well-being. Overall, I showed that job crafting is one of the important mechanisms that links agreeableness, conscientiousness, creativity, and job autonomy to positive outcome

beyond the workplace in a non-Western context such as Lebanon. This shows that using creativity to define job crafting is now empirically supported.

RQ2: *How WEIRD is job crafting?*

In chapter 3, I addressed the research question related to the how Western the construct of job crafting is, which also informs us about its universality. This study had two main aims: one that is mainly methodological and another that explored the functionality of job crafting in different contexts. Guided by van de Vijver and Leung (1997)'s recommendations for cross-cultural comparisons, I collected data from nurses working in hospitals in Lebanon ($N = 109$), India ($N = 115$), and the United states ($N = 139$). The first aim was achieved by conducting a Multigroup Confirmatory Factor Analysis (MGCFA) in order to assess the invariance of the job crafting dimensions and the other variables in the study. For the purpose of the second aim, I tested for a constrained versus unconstrained model that included the invariant dimensions of job crafting as antecedents, the invariant basic needs as mediators, and job satisfaction as an outcome variable. For the purpose of this study, I adopted the four dimensional structure of job crafting that includes: increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands (Tims & Bakker, 2010; Tims et al., 2012). The results of the MGCFA indicated that only two dimensions of the four job crafting dimensions (increasing social job resources, and increasing challenging job demands), one basic need (autonomy), and job satisfaction are invariant across the three cultural contexts.

This study is the first to empirically assess the universality of job crafting and as expected, the results indicated that the dimensions of job crafting are not perceived similarly in different cultural contexts, which hints towards the presence of construct bias. Construct bias indicates that the meaning of the construct varies across cultures (He & van de Vijver,

2012; He et al., 2017). For example, the construct of happiness is understood to be the maximization of positive affect in Western societies, while Eastern ones, it is mainly about the balance of affect (Uchida et al., 2004). In a similar manner, it might be the case that the other two dimensions of job crafting (increasing structural job resources and decreasing hindering demands) and the basic needs for relatedness and competence, which were found to be variant are perceived differently or include more culture-specific elements that are not captured in the current set of items.

The second aim of the study was to investigate the functionality of job crafting in different cultural contexts. The results indicated that increasing social job resources is related to job satisfaction only in the Lebanese sample, and that increasing challenging job demands is positively related to need for autonomy only in the Lebanese and American samples, but not in the Indian one. Moreover, the need for autonomy was found to be related to job satisfaction across all three samples and to partially mediate the relationship between increasing challenging job demands and job satisfaction only in the American sample. This indicates that although two job crafting dimensions were found to be invariant, their functionality varied across cultures. The results of this study indicate that job crafting is not a universal construct and that it adopts many characteristics that are valued in WEIRD societies, but that might be equally valued in non-WEIRD ones.

RQ3: *How are conscious and unconscious motives related to job crafting?*

Building on the results of chapter 2 that empirically linked job crafting to creativity and the results of chapter 3 and previous research (see, Slemp & Vella-Brodrick, 2014) that linked job crafting to basic intrinsic needs, the aim of chapter 4 was to explore how explicit and implicit self-regulated power motivation relate to job crafting and in turn to positive work outcomes. Job crafting has been argued to be driven by the basic needs to have a positive self-image, to have control, and to establish and maintain relationships at work

(Wrzesniewski & Dutton, 2001). Engaging in the different job crafting behaviors allows employees to satisfy those needs which resonate very well with the three basic needs specified in the Self-determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2008). However, many of our needs and preferences that guide our behaviors are implicit and are present in unconscious systems that we do not have access to. In chapter 4, I integrated the dual-motivational system (McClelland, 1985a; McClelland et al., 1989) into the theory of job crafting (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001) in order to investigate how explicit (conscious) and implicit (unconscious) motives influence the engagement in one of the dimensions of job crafting: increasing challenging job demands.

Accordingly, I collected data from 360 nurses working in Lebanese hospitals. Using SEM, I modeled the relationship between explicit integrative power motivation, implicit self-regulated power motivation, the motive interaction, and increasing challenging job demands. In the same model, the outcome variables were work engagement that was consequently related to job satisfaction. The results indicated that explicit integrative power motivation predicts increasing challenging job demands and that its effect is amplified when implicit self-regulated power motivation is high. This indicates that increasing challenging demands is facilitated by high explicit integrative power motivation and by motive congruence. Motive congruence has been shown to have many benefits as it allows individuals to seek goals that they are implicitly motivated towards (Chasiotis et al., 2021; Schüler et al., 2019). Employees who increase their challenging job demands at work seek to achieve coherence between their current state and the state they wish to be in at work. This is facilitated by self-regulation and is achieved when paralleled with coherence in relevant implicit and explicit self-regulated power motivation. The results of this study also indicated that increasing challenging job demands fully mediated the relationship between motive interaction and work engagement, which is in turn related to job satisfaction. In this study, I showed that job crafting is

facilitated by unconscious motivation that carry better representations of our needs and preferences. This highlights the importance of considering implicit motives when investigating the motivation behind job crafting and supports the earlier arguments that job crafting is motivated work behavior driven to satisfy basic needs.

The studies included in my dissertation have a number of theoretical and practical contributions, in addition to some limitations that need to be taken into consideration when conducting future research. In the sections that follow, I first discuss the theoretical implications that this research has. Second, I outline and describe the practical implications of this research and how managers and human resources professionals in general and in healthcare organizations in specific can benefit from the results of the studies. Finally, I include the limitations of this study and inform future research on addressing them.

Theoretical and Practical Contributions

Theoretical Contributions

This research expanded the model of job crafting that was developed by Rudolph et al. (2017) and added to its theory by showing that it is empirically related to creativity and that it has benefits that go beyond the workplace. Creativity has been used to define job crafting ever since the development of this concept, however no study has empirically shown that job crafting is indeed linked to creativity as an antecedent. Creativity is absent from the most recent reviews of job crafting research (e.g., Rudolph et al., 2017). Organizational research in general has rarely highlighted the role that creativity has a resource that employees can use to promote their wellbeing (Helzer & Kim, 2019). The relationship that I found between creativity and job crafting strengthens the roots that job crafting has in cognitive flexibility. Creativity and job crafting share some characteristics, since both start at the cognitive level and are aimed towards solving problems (Zhou & Shalley, 2003). Creativity indicates cognitive flexibility and the ability of switch between perspectives

(Torrance, 1974), which is at the core of job crafting. Another element that this research added to the model of job crafting is subjective well-being as an outcome. Job crafting has been shown to have a lot of positive work related outcomes such as work wellbeing and satisfaction (for an overview, check Rudolph et al., 2017). The results of chapter 2 showed that nurses who engage in job crafting experience higher levels of subjective well-being. This finding indicates that job crafting helps employees satisfy needs and preferences that not only have value in their workplace, but also in their personal lives.

This research also added to the theory of job crafting by exploring it in a non-WEIRD (western, educated, industrialized, rich, and democratic) context and taking the element of culture into consideration. The results indicated that job crafting is concept that is hinged on cultural characteristics that are not universal and has different functions in contexts that vary in terms of their socio-cultural characteristics. Specifically, the results of chapter 2 indicated that individuals scoring high on agreeableness are more likely to engage in job crafting, which indicates the differential role that job crafting in societies where this personality facet is prevalent. Job crafting in such contexts might be used to fit in instead of standing out. This is in line with previous reasoning that suggested that some traits are especially instrumental for successful functioning in some cultures more than others such as agreeableness that is important particularly in cultures that emphasize interpersonal harmony (Triandis & Suh, 2002). Moreover, the results of chapter 3 indicated that increasing structural job resources and decreasing hindering job demands might include elements that are only applicable in Western contexts and that these dimensions have elements that are not captured in the current set of items.

On a more general note, this research bridged between motivation and job crafting research. These two are arguably related to each other and have been explored at the explicit level. For example, Bipp and Demerouti (2015) explored job crafting in relation to basic

personality dimensions using the model of approach and avoidance temperament (AAT; Elliot & Thrash, 2002; Elliot & Thrash, 2010). In my research I adopted the dual-motivational system that posits that human behavior and goal achievement is driven by two distinct systems that work in parallel: implicit (unconscious) and explicit (conscious) motivation (McClelland, Atkinson, Clark, & Lowell, 1953; McClelland, 1985b; McClelland et al., 1989). I used an indirect measure (picture story exercise) that integrates basic personality dimensions (approach/avoidance) and motivational orientations (power, achievement, and affiliation) in order to better understand who is more likely to increase his or her challenging job demands. This provides significant insight into the validity of the dual-motivational system in predicting work behaviors. Moreover, I provided empirical evidence on the relationship between self-regulation and one of the approach dimensions of job crafting. Job crafting has been argued to be of a form of meaningful self-regulation that creates a better fit between individuals and their roles (Berg et al., 2013; Berg, Wrzesniewski, & Dutton, 2010). Recent literature have suggested that job crafting is a self-regulation strategy (see, Bakker & de Vries, 2020). At its core, self-regulation is about modifying internal parameters to adapt to external demands. In a similar manner, through job crafting, employees tap into their needs and preferences and as a result feel passionate and energetic about their jobs (Hu et al., 2020).

Finally, and on a methodological level, this research adopted an implicit measure to relate implicit dimensions to work behaviors. Implicit measures have been argued to be very promising for organizational research (Bing et al., 2007; Haines & Sumner, 2006; James & LeBreton, 2012), however unconscious processes and implicit measures that capture them have been underutilized by organizational scholars (Uhlmann et al., 2012). In chapter 3, I measured implicit motives using the Operant Motive Test (OMT; Kuhl, 2013; Kuhl & Scheffer, 1999), which is inspired by the classical Thematic Apperception Test (TAT;

Morgan & Murray, 1935). Despite the limited use of implicit measures, they can provide valuable insight into some phenomena that operate outside the awareness and the employees. Moreover, when coupled with explicit measure, such as self-report tools, implicit measures provide more predictive value and insight into the links between needs and behavior.

Practical Contributions

In addition to the many important theoretical implications that this research has, it offers some practical implications aimed at improving employee performance and wellbeing. The findings of the studies have practical implications for human resource management as they are concerned with the antecedents of proactive employee behavior and how this behavior influences employees' work and personal wellbeing. Accordingly, my recommendations inform two main functions that fall under the umbrella of human resource management, which are: recruitment and selection and training and development.

My research provides a list of personal characteristics such as creativity, agreeableness, and explicit integrative power motivation that are related to the engagement in job crafting. Moreover, the results of the studies corroborate that engaging in job crafting might improve the employee's work engagement, job satisfaction, and his or her life satisfaction. Selection and recruitment managers can adopt this evidence-based framework and incorporate the personal characteristics mentioned above into their selection criteria in order to hire employees who will more likely engage in job crafting and as a result experience positive work outcomes. Hospitals in particular can benefit from this selection strategy as the nursing profession is known for the having low levels of work engagement and job satisfaction, which can negatively influence patient care.

Some of the personal characteristics that were found to be related to the engagement in job crafting can be incorporated into the employees' regular training needs analyses and the subsequent training and development plans. For example, creativity can be translated into

behavioral indicators that can be used in order to assess the performance of employees and develop training modules that address potential gaps in skill level. Moreover, knowing the benefits of job crafting, organizations can design and develop training workshops aimed at familiarizing employees with the concept of job crafting and how they can engage in it at work. This will also indirectly send the employees the message that their organizations endorse proactive work behaviors at work. This is particularly important for healthcare organizations as ideal safety cultures have evolved from being purely reactive to becoming proactive and high-reliability organizations (Hudson, 2003).

Some of the results in the dissertation suggest that job crafting might take on different forms in non-Western contexts. Organizations interested in promoting job crafting among employees should understand how cultural factors at the national level can promote or hinder the engagement in job crafting. This indirectly cautions against adopting strategies that promote the engagement in job crafting behaviors without considering the barriers and facilitators innate to the national and organizational culture.

Limitations and Perspectives

The research findings should be considered in light of some limitations. First, the three studies included in the dissertation have a cross-sectional survey design. This prevented us from determining the directionality of the relationships found and examining the long-term effect of proactive work behaviors on positive work outcomes. For example, in chapter 4, I found that self-regulated power motive congruence is positively linked to the approach job crafting dimension of increasing challenging demands. In this model, motive interaction/congruence was the antecedent of increasing challenging job demands. While the relationship I found was expected, a relationship with an opposite direction can also be expected. Job crafting has been argued to be a form of adaptive self-regulated work behavior that prevents burnout among employees (Bakker & de Vries, 2020). Since self-regulation facilitates

implicit-explicit motive congruence (Kehr, 2004), it might also be the case that engaging in job crafting facilitates motive congruence. Future research should adopt a longitudinal study design in order to better understand the directionality of the relationships in this research in order to generate clearer theoretical and practical implications. Future research might also benefit from adopting daily and weekly diary designs as they capture the dynamic and fluctuating nature of job crafting and its related outcomes (Petrou, Bakker, & van den Heuvel, 2017). Second, the measures used to collect the data in the three studies were self-report tools, with the exception of the OMT, which might have influenced the validity of the research findings as such tools can be prone bias due to cheating and socially desirable responding (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Future research should adopt multi-source data collection strategies (from colleagues and managers) in order to capture multiple perspectives and improve the validity of research findings.

Some recommendations for future research are not based on the limitations of my research, but on its findings instead. Future research can build on my research findings in order to explore new avenues in job crafting research. First, the findings of the study in chapter 3 point towards the lack of the universality of the construct of job crafting. This was made clear because only two of the dimensions of job crafting were found to be invariant across the three cultural contexts in the study (Lebanon, India, and the United States): increasing social job resources and increasing challenging job demands. In Psychology in general, there are two main ways to study culture: an emic, culture-specific one and an etic that adopts a universalist approach (Church, 2009; van de Vijver & Leung, 1997; Zimbardo, 2012). These two approaches complement each other as each one highlights a certain aspect about the construct under study. While the first approach (emic) builds on the uniqueness of culture, the second (etic) stresses on understanding the commonalities between cultures. Applying this reasoning to my research, in the third study, I adopted an etic approach to

understand job crafting and used a quantitative methodology. According to van de Vijver and Leung (1997), similar methods (quantitative) provide researchers with the numerical information of a psychological construct and the performance of the items that it is manifested by. On the other hand, qualitative methods provide insight into the psychological construct in local contexts using observation or interviews. In short, future research should adopt an emic mixed-methods approach in order to explore the construct of job crafting and its applicability from the perspective of employees working in organizations in non-Western contexts. This should take into consideration the cultural dimensions that can hinder or promote the engagement in job crafting such as power distance (Hofstede, 2001), tightness versus looseness (Gelfand et al., 2011), independent versus interdependent self-construals (Markus & Kitayama, 1991; Singelis, 1994) and many more that can have an influence on employee work behavior. Second, future research should adopt the motive enactment classification (approach/avoidance) that the OMT provides in order to strengthen the approach and avoidance underpinnings of the dimensions of job crafting. Recent conceptualizations of job crafting have been clustering the job crafting dimensions into approach crafting and avoidance crafting (Lichtenthaler & Fischbach, 2019) and many studies have already shown that they relate to the Higgins (1997)'s promotion and reduction focus and Elliot and Thrash (2002)'s approach and avoidance temperaments. However, the job crafting dimensions have yet to be investigated in relation to orientations related to motive enactment. Guided by this gap, the next study that I will conduct will incorporate the motive enactment classification (approach/avoidance) of the OMT in order to correlate the approach and avoidance orientations with the approach and avoidance dimensions of job crafting.

Final Remarks

It has become apparent that being proactive is a vital component for the livelihood of organizations especially those that operate in high-risk contexts such as healthcare (Hudson, 2003). Rigid job designs and processes have been developed based on a one-size-fits all mentality, however, in our current times, the value of personalization has never been higher. Employees should be encouraged to be proactive and create a work environment in which they feel engaged because no one knows their needs and preference more than they do. Engaging in job crafting allows employees to shape their jobs and satisfy their needs and passions. In this dissertation I utilized the theoretical blueprint of job crafting in order to empirically investigate its defining characteristics that have been either implied, assumed, or argued. My research shows that job crafting is empirically related to creativity, which supports the implied notion that it is set of creative work behaviors. Moreover, chapter 3 showed that job crafting has some elements of universality but is not fully universal. Only two of its four dimensions were found to be cross-culturally invariant: increasing social job resources and increasing challenging job demands. This might hint towards the existence of some culture-specific elements that the other two dimensions do not capture. Finally, chapter 4 linked implicit and explicit power motivation to job crafting. This empirically strengthened the motivational underpinnings of job crafting that have been argued. To conclude, the results of this dissertation draw a clearer picture of job crafting as a construct, the individuals who are more likely to engage in it, and the influence it has on their work and personal lives.

References

- Akın, A., Sariçam, H., Kaya, Ç., & Demir, T. (2014). Turkish version of job crafting scale (JCS): The validity and reliability study. *International Journal of Educational Researchers, 5*, 10-15.
- Alameddine, M., Kharroubi, S. A., Dumit, N. Y., Kassas, S., Diab-El-Harake, M., & Richa, N. (2020). What made Lebanese emigrant nurses leave and what would bring them back? A cross-sectional survey. *International Journal of Nursing Studies, 103*, 103497.
- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology, 45*, 357.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior, 10*, 123-167.
- Amabile, T. M., Barsade, G., Mueller, S., & Staw, M. (2005). Affect and creativity at work. *Administrative Science Quarterly, 50*, 367-403.
- Antoinette Bargagliotti, L. (2012). Work engagement in nursing: a concept analysis. *Journal of Advanced Nursing, 68*, 1414-1428.
- Arnett, J. J. (2008). The neglected 95%: why American psychology needs to become less American. *The American Psychologist, 63*, 602-614.
- Ashton, M. C., Lee, K., Perugini, M., Szarota, P., De Vries, R. E., Di Blas, L., . . . De Raad, B. (2004). A six-factor structure of personality-descriptive adjectives: solutions from psycholexical studies in seven languages. *Journal of Personality and Social Psychology, 86*, 356.

- Aydinli, A., Bender, M., Chasiotis, A., Cemalcilar, Z., & Van de Vijver, F. J. (2014). When does self-reported prosocial motivation predict helping? The moderating role of implicit prosocial motivation. *Motivation and Emotion*, 38, 645-658.
- Baghdadi, N. A., Farghaly Abd-EL Aliem, S. M., & Alsayed, S. K. (2020). The relationship between nurses' job crafting behaviours and their work engagement. *Journal of Nursing Management*.
- Bakker, A. B. (2018). Job crafting among health care professionals: The role of work engagement. *Journal of Nursing Management*, 26, 321-331.
- Bakker, A. B., & de Vries, J. D. (2020). Job Demands–Resources theory and self-regulation: new explanations and remedies for job burnout. *Anxiety, Stress, & Coping*, 1-21.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22, 309-328.
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22, 273.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10, 170.
- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2005). The crossover of burnout and work engagement among working couples. *Human relations*, 58, 661-689.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 43, 83-104.
- Bakker, A. B., Ficapal-Cusí, P., Torrent-Sellens, J., Boada-Grau, J., & Hontangas-Beltrán, P. M. (2018). The Spanish version of the job crafting scale. *Psicothema*, 30, 136-142.

- Bakker, A. B., & Oerlemans, W. G. (2019). Daily job crafting and momentary work engagement: A self-determination and self-regulation perspective. *Journal of Vocational Behavior, 112*, 417-430.
- Bakker, A. B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human relations, 65*, 1359-1378.
- Bandura, A. (2008). An agentic perspective on positive psychology. *Positive psychology, 1*, 167-196.
- Barakat, H. (1977). *Lebanon oin Strife*. Austin, TX: University of Texas Press.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel Psychology, 44*, 1-26.
- Bass, B. M., & Burger, P. (1979). *Assessment of managers: An international comparison*. New York: Free Press.
- Baumann, N., Kaschel, R., & Kuhl, J. (2005). Striving for unwanted goals: stress-dependent discrepancies between explicit and implicit achievement motives reduce subjective well-being and increase psychosomatic symptoms. *Journal of Personality and Social Psychology, 89*, 781.
- Baumann, N., Kazén, M., & Kuhl, J. (2010). Implicit motives: A look from personality systems interaction theory. *Implicit motives, 375-403*.
- Baumann, N., & Kuhl, J. (2020). Nurturing your self: Measuring and changing how people strive for what they need. *The Journal of Positive Psychology, 1-12*.
- Beek, I. v., Taris, T. W., Schaufeli, W. B., & Brenninkmeijer, V. (2013). Heavy work investment: Its motivational make-up and outcomes. *Journal of Managerial Psychology, 29*, 46-62.

- Bell, C., & Njoli, N. (2016). The role of big five factors on predicting job crafting propensities amongst administrative employees in a South African tertiary institution. *SA Journal of Human Resource Management, 14*, 1-11.
- Bender, M., & Adams, B. (2021). *Methods and Assessment in Culture and Psychology*. Cambridge: Cambridge University Press.
- Bender, M., Woike, B. A., Burke, C. T., & Dow, E. A. (2012). The relationship between implicit and explicit motives, goal pursuit, and autobiographical memory content during a diary study. *Journal of Research in Personality, 46*, 374-383.
- Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2008). What is job crafting and why does it matter. *Theory-to-practice briefing*. Retrieved from www.bus.umich.edu/Positive/POS-Teaching-andLearning/Job_Crafting-Theory_to_Practice-Aug_08.pdf
- Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2013). Job crafting and meaningful work. *Purpose and meaning in the workplace*, 81-104.
- Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior, 31*, 158-186.
- Berings, D., De Fruyt, F., & Bouwen, R. (2004). Work values and personality traits as predictors of enterprising and social vocational interests. *Personality and Individual Differences, 36*, 349-364.
- Bing, M. N., LeBreton, J. M., Davison, H. K., Migetz, D. Z., & James, L. R. (2007). Integrating implicit and explicit social cognitions for enhanced personality assessment: A general framework for choosing measurement and statistical methods. *Organizational Research Methods, 10*, 136-179.

- Bipp, T., & Demerouti, E. (2015). Which employees craft their jobs and how? Basic dimensions of personality and employees' job crafting behaviour. *Journal of Occupational and Organizational Psychology*, 88, 631-655.
- Boer, D., Hanke, K., & He, J. (2018). On detecting systematic measurement error in cross-cultural research: A review and critical reflection on equivalence and invariance tests. *Journal of Cross-Cultural Psychology*, 49, 713-734.
- Bollen, K. A. (1989). *Structural equations with latent variables* New York, NY: Wiley.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, 88, 1057.
- Brien, M., Forest, J., Mageau, G. A., Boudrias, J. S., Desrumaux, P., Brunet, L., & Morin, E. M. (2012). The basic psychological needs at work scale: measurement invariance between Canada and France. *Applied Psychology: Health and Well-Being*, 4, 167-187.
- Bruning, P. F., & Campion, M. A. (2018). A role–resource approach–avoidance model of job crafting: A multimethod integration and extension of job crafting theory. *Academy of Management Journal*, 61, 499-522.
- Brunstein, J. C. (2001). Persönliche Ziele und Handlungs-versus Lageorientierung. Wer bindet sich an realistische und bedürfniskongruente Ziele? [Personal goals and action versus situation orientation. Who is committed to realistic and needs-congruent goals?]. *Zeitschrift für differentielle und diagnostische Psychologie*.
- Brunstein, J. C. (2018). Implicit and explicit motives. In *Motivation and action* (pp. 369-405): Springer.
- Brunstein, J. C., & Maier, G. W. (2005). Implicit and self-attributed motives to achieve: Two separate but interacting needs. *Journal of Personality and Social Psychology*, 89, 205.

- Brunstein, J. C., Schultheiss, O. C., & Grässman, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology*, 75, 494.
- Byrne, B. M. (2010). *Multivariate applications series* (2nd ed.). New York, NY, US: Routledge/Taylor & Francis Group.
- Cangiano, F., & Parker, S. K. (2016). Proactivity for mental health and well-being. In S. Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell handbook of the psychology of occupational safety and workplace health* (pp. 228-250). London: Wiley.
- Carter, N. T., Daniels, M. A., & Zickar, M. J. (2013). Projective testing: Historical foundations and uses for human resources management. *Human Resource Management Review*, 23, 205-218.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among US managers. *Journal of Applied Psychology*, 85, 65.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from "feeling right.". *Journal of Personality and Social Psychology*, 86, 388.
- Chasiotis, A. (2015). Measuring Implicit Motives. In T. Ortner & F. van de Vijver (Eds.), *Behavior-Based Assessment in Psychology. Going Beyond Self-Report in the Personality, Affective, Motivation, and Social Domains* (Vol. 1, pp. 81-96). Göttingen: Hogrefe.
- Chasiotis, A., Hofer, J., & Bender, M. (2021). 9 Culture Is More Than Self-Reported Motives, Beliefs, and Values: Methodological Advancements of Measuring Implicit Motives across Cultural Contexts. *Methods and Assessment in Culture and Psychology*, 170.

- Cheng, H., Ding, Y., & Wang, B. (2020). A validation study of the Job Crafting Scale among nurses in public hospitals in China. *Journal of Nursing Management*, 28, 1021-1029.
- Cheung, F., & Lucas, R. E. (2014). Assessing the validity of single-item life satisfaction measures: Results from three large samples. *Quality of Life Research*, 23, 2809-2818.
- Cheung, F. M., Leung, K., Fan, R. M., Song, W.-Z., Zhang, J.-X., & Zhang, J.-P. (1996). Development of the Chinese personality assessment inventory. *Journal of Cross-Cultural Psychology*, 27, 181-199.
- Cheung, F. M., van de Vijver, F. J., & Leong, F. T. (2011). Toward a new approach to the study of personality in culture. *American Psychologist*, 66, 593.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural equation modeling*, 9, 233-255.
- Chinelato, R. S. d. C., Ferreira, M. C., & Valentini, F. (2015). Evidence of validity of the job crafting behaviors scale. *Paidéia (Ribeirão Preto)*, 25, 325-332.
- Church, A. T. (2009). Prospects for an integrated trait and cultural psychology. *European Journal of Personality: Published for the European Association of Personality Psychology*, 23, 153-182.
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *The experience of work: A compendium and review of 249 measures and their use*: London; New York: Academic Press.
- Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: happy and unhappy people. *Journal of Personality and Social Psychology*, 38, 668.
- Coutts, A., Fouad, F. M., Abbara, A., Sibai, A. M., Sahloul, Z., & Blanchet, K. (2015). Responding to the Syrian health crisis: the need for data and research. *The Lancet. Respiratory medicine*, 3, e8-9.

- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*, 834.
- Daouk-Öyry, L., Anouze, A.-L., Otaki, F., Dumit, N. Y., & Osman, I. (2014). The JOINT model of nurse absenteeism and turnover: a systematic review. *International Journal of Nursing Studies, 51*, 93-110.
- Daouk-Öyry, L., Zeinoun, P., Sahakian, T., & Van de Vijver, F. J. R. (2019). API Short: A Brief Version of the Arab Personality Inventory. *Manuscript in preparation*.
- De Beer, L. T., Tims, M., & Bakker, A. B. (2016). Job crafting and its impact on work engagement and job satisfaction in mining and manufacturing. *South African Journal of Economic and Management Sciences, 19*, 400-412.
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: the state of a science. *Annual Review of Organizational Psychology and Organizational Behavior, 4*, 19-43.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227-268.
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian psychology/Psychologie canadienne, 49*, 14.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin, 27*, 930-942.

- Demerouti, E., & Bakker, A. B. (2014). Job crafting. In M. C. Peeters, J. de Jonge, & T. W. Taris (Eds.), *An introduction to contemporary work psychology*. London, UK: Wiley.
- Demerouti, E., Bakker, A. B., & Gevers, J. M. (2015). Job crafting and extra-role behavior: The role of work engagement and flourishing. *Journal of Vocational Behavior, 91*, 87-96.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2000). A model of burnout and life satisfaction amongst nurses. *Journal of Advanced Nursing, 32*, 454-464.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197.
- Derryberry, D., & Tucker, D. M. (1994). Motivating the focus of attention. In P. M. Niedenthal & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention* (pp. 167-196). San Diego, CA: Academic Press.
- Diefendorff, J. M., Erickson, R. J., Grandey, A. A., & Dahling, J. J. (2011). Emotional display rules as work unit norms: a multilevel analysis of emotional labor among nurses. *Journal of Occupational Health Psychology, 16*, 170.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist, 55*, 34.
- Diener, E., & Diener, M. (2009). Cross-Cultural Correlates of Life Satisfaction and Self-Esteem. In E. Diener (Ed.), *Culture and Well-Being: The Collected Works of Ed Diener* (pp. 71-91). Dordrecht: Springer Netherlands.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.

- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*, 143-156.
- Dimitrova, R., Chasiotis, A., Bender, M., & van de Vijver, F. (2013). Collective identity and wellbeing of Roma minority adolescents in Bulgaria. *International Journal of Psychology*, *48*, 502-513.
- Dumit, N. Y., & Honein-AbouHaidar, G. (2019). The impact of the Syrian refugee crisis on nurses and the healthcare system in Lebanon: a qualitative exploratory study. *Journal of Nursing Scholarship*, *51*, 289-298.
- Eguchi, H., Shimazu, A., Bakker, A. B., Tims, M., Kamiyama, K., Hara, Y., . . . Kawakami, N. (2016). Validation of the Japanese version of the job crafting scale. *Journal of occupational health*, *58*, 231-240.
- El-Jardali, F., Dumit, N., Jamal, D., & Mouro, G. (2008). Migration of Lebanese nurses: a questionnaire survey and secondary data analysis. *International Journal of Nursing Studies*, *45*, 1490-1500.
- Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, *30*, 111-116.
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, *72*, 218.
- Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: a personal goals analysis. *Journal of Personality and Social Psychology*, *73*, 171.

- Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82, 804.
- Elliot, A. J., & Thrash, T. M. (2010). Approach and avoidance temperament as basic dimensions of personality. *Journal of Personality*, 78, 865-906.
- Emamizadeh, A. H., & Beveridge, A. J. (2018). *Job Crafting Differences between Generations X and Y: A Cross-cultural Study of Iran and China*. Paper presented at the Academy of Management Proceedings.
- ESCWA. (2020). *Poverty in Lebanon: Solidarity is vital to address the impact of multiple overlapping shocks*. Retrieved from https://www.unescwa.org/sites/www.unescwa.org/files/20-00268_pb15_beirut-explosion-rising-poverty-en.pdf
- Essau, C. A., Olaya, B., Anastassiou-Hadjicharalambous, X., Pauli, G., Gilvarry, C., Bray, D., . . . Ollendick, T. H. (2012). Psychometric properties of the Strength and Difficulties Questionnaire from five European countries. *International Journal of Methods in Psychiatric Research*, 21, 232-245.
- FAO. (2020). *GIEWS Country Brief: Lebanon*. Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/LBN_12.pdf
- Farh, J.-L., Earley, P. C., & Lin, S.-C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly*, 421-444.
- Fay, D., & Sonnentag, S. (2010). A look back to move ahead: New directions for research on proactive performance and other discretionary work behaviours. *Applied Psychology*, 59, 1-20.

- Fiabane, E., Giorgi, I., Sguazzin, C., & Argentero, P. (2013). Work engagement and occupational stress in nurses and other healthcare workers: the role of organisational and personal factors. *Journal of Clinical Nursing*, *22*, 2614-2624.
- Fiske, D. W., & Maddi, S. R. (1961). *Functions of varied experience*. Homewood, IL: Dorsey Press.
- Fodor, E. M. (2010). Power Motivation. In O. C. Schultheiss & J. C. Brunstein (Eds.), *Implicit motives* (pp. 3-29). New York: Oxford University Press, Inc.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of general psychology*, *2*, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218.
- Freitas, A. L., & Higgins, E. T. (2002). Enjoying goal-directed action: The role of regulatory fit. *Psychological Science*, *13*, 1-6.
- Frese, M. (2000). The changing nature of work. In N. Chmiel (Ed.), *Introduction to work and organizational psychology* (pp. 424-439). Oxford: Blackwell.
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in organizational behavior*, *23*, 133-187.
- Fuller, A., & Unwin, L. (2017). Job crafting and identity in low-grade work: How hospital porters redefine the value of their work and expertise. *Vocations and Learning*, *10*, 307-324.
- Fung-kam, L. (1998). Job satisfaction and autonomy of Hong Kong registered nurses. *Journal of Advanced Nursing*, *27*, 355-363.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*, 331-362.

- Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology, 102*, 514.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annu. Rev. Psychol., 58*, 479-514.
- Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., . . . Arnadottir, J. (2011). Differences between tight and loose cultures: A 33-nation study. *science, 332*, 1100-1104.
- Goff, K. (1993). Creativity and life satisfaction of older adults. *Educational Gerontology: An International Quarterly, 19*, 241-250.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological assessment, 4*, 26.
- Gómez-Salgado, J., Domínguez-Salas, S., Romero-Martín, M., Romero, A., Coronado-Vázquez, V., & Ruiz-Frutos, C. (in press). Work Engagement and Psychological Distress of health professionals during the COVID-19 pandemic. *Journal of Nursing Management*.
- Gordon, H. J., Demerouti, E., Le Blanc, P. M., Bakker, A. B., Bipp, T., & Verhagen, M. A. (2018). Individual job redesign: Job crafting interventions in healthcare. *Journal of Vocational Behavior, 104*, 98-114.
- Gordon, H. J., Demerouti, E., Le Blanc, P. M., & Bipp, T. (2015). Job crafting and performance of Dutch and American health care professionals. *Journal of Personnel Psychology*.
- Gorman, E., Yu, S., & Alamgir, H. (2010). When healthcare workers get sick: exploring sickness absenteeism in British Columbia, Canada. *Work, 35*, 117-123.

- Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504-528.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.
- Hackman, R. J., & Oldman, G. R. (1975). General job satisfaction scale. In J. D. Cook, S. J. Hepworthe, T. D. Wall, & P. B. Warr (Eds.), *The experience of work: A compendium and review of 249 measures and their use* (pp. 12-36). London: Academic Press.
- Haines, E. L., & Sumner, K. E. (2006). Implicit measurement of attitudes, stereotypes, and self-concepts in organizations: Teaching old dogmas new tricks. *Organizational Research Methods, 9*, 536-553.
- Haladyna, T. M., Downing, S. M., & Rodriguez, M. C. (2002). A review of multiple-choice item-writing guidelines for classroom assessment. *Applied measurement in education, 15*, 309-333.
- Haladyna, T. M., & Rodriguez, M. C. (2013). Developing and validating test items.
- Hamadi, G. (2019). Unemployment: The paralysis of Lebanese youth. *Business & Finance*. Retrieved from <https://en.annahar.com/article/1004952-unemployment-the-paralysis-of-lebanese-youth>
- Hambleton, R. K., & Swaminathan, H. (2013). *Item response theory: Principles and applications*: Springer Science & Business Media.
- Hartung, P. J., Speight, J. D., & Lewis, D. M. (1996). Individualism—Collectivism and the vocational behavior of majority culture college students. *The Career Development Quarterly, 45*, 87-96.
- Hayes, N., & Joseph, S. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual Differences, 34*, 723-727.

- He, J., & van de Vijver, F. (2012). Bias and equivalence in cross-cultural research. *Online Readings in Psychology and Culture, 2*, 2307-0919.1111.
- He, J., Van de Vijver, F. J. R., Fetvadjev, V. H., Carmen Dominguez Espinosa, A., Adams, B., Alonso-Arbiol, I., . . . Fortin, A. (2017). On Enhancing the Cross-Cultural Comparability of Likert-Scale Personality and Value Measures: A Comparison of Common Procedures. *European Journal of Personality, 31*, 642-657.
- Helzer, E. G., & Kim, S. H. (2019). Creativity for workplace well-being. *Academy of Management Perspectives, 33*, 134-147.
- Hemalatha, R., & Shakuntala, B. (2018). A Delphi approach to developing a core competency framework for registered nurses in Karnataka, India. *Journal of Health and Allied Sciences NU, 8*, 003-007.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*, 61-83.
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. New York: Wiley.
- Higgins, E. (1997). Beyond Pleasure and Pain. *American Psychologist, 52*, 1280-1300.
- Hill, C., Adams, B. G., De Bruin, G. P., Nel, J. A., Van de Vijver, F. J., Valchev, V. H., & Meiring, D. (2013). Developing and testing items for the South African Personality Inventory (SAPI). *SA Journal of Industrial Psychology, 39*, 1-13.
- Hill, R. (1998). *Euromanagers and Martians*. Brussels, Belgium: Europublications.
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology, 84*, 632.

- Hofer, J., Busch, H., Bond, M. H., Li, M., & Law, R. (2010). Effects of motive-goal congruence on well-being in the power domain: Considering goals and values in a German and two Chinese samples. *Journal of Research in Personality, 44*, 610-620.
- Hofer, J., & Chasiotis, A. (2003). Congruence of life goals and implicit motives as predictors of life satisfaction: Cross-cultural implications of a study of Zambian male adolescents. *Motivation and Emotion, 27*, 251-272.
- Hofer, J., Chasiotis, A., & Campos, D. (2006). Congruence between social values and implicit motives: Effects on life satisfaction across three cultures. *European Journal of Personality: Published for the European Association of Personality Psychology, 20*, 305-324.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills: Sage Publications.
- Hofstede, G. (1983). Dimensions of national cultures in fifty countries and three regions. In J. B. Deregowski, S. Dziurawiec, & R. C. Annis (Eds.), *Expiscations in Cross-cultural Psychology* (pp. 335-355). Lisse, the Netherlands: Swets and Zeitlinger.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*: Sage publications.
- Hofstede, G., Hofstede, G., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (Revised and Expanded 3rd ed.). New York: McGraw-Hill.
- Hongoro, C., & McPake, B. (2004). How to bridge the gap in human resources for health. *The Lancet, 364*, 1451-1456.
- Hu, Q., Taris, T. W., Dollard, M. F., & Schaufeli, W. B. (2020). An exploration of the component validity of job crafting. *European Journal of Work and Organizational Psychology, 29*, 776-793.
- Hudson, P. (2003). Applying the lessons of high risk industries to health care. *BMJ Quality & Safety, 12*, i7-i12.

- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: a cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349.
- James, L. R., & LeBreton, J. M. (2012). *Assessing the implicit personality through conditional reasoning*: American Psychological Association.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102-138). New York: The Guilford Press.
- Kalisch, B. J., Doumit, M., Lee, K. H., & Zein, J. E. (2013). Missed nursing care, level of staffing, and job satisfaction: Lebanon versus the United States. *The Journal of nursing administration*, 43, 274-279.
- Kanten, P. (2014). The antecedents of job crafting: Perceived organizational support, job characteristics and self-efficacy. *European Journal of Business and Social Sciences*, 3, 113-128.
- Karasek, R., & Theorell, T. (1990). *Healthy work* New York: Basic Books.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 285-308.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Review of Psychology*, 44, 23-52.
- Kehr, H. M. (2004). Implicit/explicit motive discrepancies and volitional depletion among managers. *Personality and Social Psychology Bulletin*, 30, 315-327.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 207-222.

- Khairallah, D. L. (1994). Secular democracy: a viable alternative to the confessional system. In D. Collins (Ed.), *Peace for Lebanon? From war to reconstruction* (pp. 259-272). Boulder, Colo: Lynne Rienner Publishers
- Kimchi, R. (1992). Primacy of wholistic processing and global/local paradigm: a critical review. *Psychological Bulletin*, 112, 24.
- Kitayama, S. (2017). *Journal of Personality and Social Psychology: Attitudes and social cognition*.
- Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any “free” choice? Self and dissonance in two cultures. *Psychological Science*, 15, 527-533.
- Kline, P. (2013). *Personality: The psychometric view*: Routledge.
- Koestner, R., Weinberger, J., & McClelland, D. C. (1991). Task-intrinsic and social-extrinsic sources of arousal for motives assessed in fantasy and self-report. *Journal of Personality*, 59, 57-82.
- Kooij, D. T., Tims, M., & Akkermans, J. (2017). The influence of future time perspective on work engagement and job performance: the role of job crafting. *European Journal of Work and Organizational Psychology*, 26, 4-15.
- Kramer, M., & Schmalenberg, C. E. (2003). Magnet hospital nurses describe control over nursing practice. *Western journal of nursing research*, 25, 434-452.
- Kuhl, J. (1999). Der Motiv-Umsetzungs-Test (MUT)[The motive-enactment-test (MUT)]. *Unpublished questionnaire, University of Osnabrück, Osnabrück, Germany*.
- Kuhl, J. (2000). A functional-design approach to motivation and self-regulation: The dynamics of personality systems interactions. In *Handbook of self-regulation* (pp. 111-169): Elsevier.
- Kuhl, J. (2001). *Motivation und Persönlichkeit: Interaktionen psychischer systeme*. [Motivation and Personality: Interactions of Mental Systems]. Hogrefe.

- Kuhl, J. (2013). Auswertungsmanual für den Operanten Multi-Motiv-Test (OMT).
Vollständig revidierte Fassung 2013.[Scoring Manual for the Operant Multi-Motive-
Test (OMT). Completely revised version 2013]. In: Sonderpunkt
Wissenschaftsverlag, Münster, Germany.
- Kuhl, J., & Scheffer, D. (1999). Der operante multi-motiv-test (OMT): Manual [The operant
multi-motive-test (OMT): Manual]. *Germany: University of Osnabrück.*
- Kuhl, J., & Scheffer, D. (2001a). Auswertungsmanual für den Operanten Multi-Motiv-Test.
[Scoring Manual for the Operant Multi-Motive-Test]. *University of Osnabrück.*
- Kuhl, J., & Scheffer, D. (2001b). *Der operante multi-motiv-test (OMT): Manual [The operant
multi-motive-test (OMT): Manual]*. University of Osnabrück. Osnabrück.
- Kuhl, J., Scheffer, D., & Eichstaedt, J. (2003). Der Operante Motiv-Test (OMT): Ein neuer
Ansatz zur Messung impliziter Motive. [The Operant Motive Test (OMT): A New
Approach to Measuring Implicit Motives]. *Diagnostik von motivation und
selbstkonzept*, 129-149.
- Kwantes, C. T. (2010). The facets of job satisfaction: A nine-nation comparative study of
construct equivalence. *Applied Multivariate Research*, 13, 145-159.
- Laker, B., Patel, C., Budhwar, P., & Malik, A. (2020). How Job Crafting Can Make Work
More Satisfying. Retrieved from [https://sloanreview.mit.edu/article/how-job-crafting-
can-make-work-more-satisfying/](https://sloanreview.mit.edu/article/how-job-crafting-can-make-work-more-satisfying/)
- Lalwani, A. K., Shrum, L., & Chiu, C.-Y. (2009). Motivated response styles: The role of
cultural values, regulatory focus, and self-consciousness in socially desirable
responding. *Journal of Personality and Social Psychology*, 96, 870.
- Lane, S., Raymond, M. R., Haladyna, T. M., & Downing, S. M. (2016). Test development
process. *Handbook of test development*, 2, 1-37.

- Laranjeira, C. A. (2012). The effects of perceived stress and ways of coping in a sample of Portuguese health workers. *Journal of Clinical Nursing, 21*, 1755-1762.
- Laschinger, H. K. S., Wong, C. A., & Greco, P. (2006). The impact of staff nurse empowerment on person-job fit and work engagement/burnout. *Nursing Administration Quarterly, 30*, 358-367.
- Lawler, J. J., Jain, H. C., Venkata Ratnam, C., & Atmiyanandana, V. (1995). Human resource management in developing economies: a comparison of India and Thailand. *International Journal of Human Resource Management, 6*, 319-346.
- Lazazzara, A., Tims, M., & De Gennaro, D. (2020). The process of reinventing a job: A meta-synthesis of qualitative job crafting research. *Journal of Vocational Behavior, 116*.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: the role of interdependence in regulatory focus. *Journal of Personality and Social Psychology, 78*, 1122.
- Lee, K., & Ashton, M. C. (2004). Psychometric properties of the HEXACO personality inventory. *Multivariate Behavioral Research, 39*, 329-358.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor-hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal, 48*, 764-775.
- Leung, K., & Van De Vijver, F. J. (2008). Strategies for strengthening causal inferences in cross cultural research: The consilience approach. *International Journal of Cross Cultural Management, 8*, 145-169.
- Liang, Y.-W., Chen, W.-Y., Lee, J.-L., & Huang, L.-C. (2012). Nurse staffing, direct nursing care hours and patient mortality in Taiwan: the longitudinal analysis of hospital nurse staffing and patient outcome study. *BMC health services research, 12*, 1-8.

- Lichtenthaler, P. W., & Fischbach, A. (2019). A meta-analysis on promotion-and prevention-focused job crafting. *European Journal of Work and Organizational Psychology, 28*, 30-50.
- Lim, J., Bogossian, F., & Ahern, K. (2010). Stress and coping in Australian nurses: a systematic review. *International Nursing Review, 57*, 22-31.
- Lindsay, R., Hanson, L., Taylor, M., & McBurney, H. (2008). Workplace stressors experienced by physiotherapists working in regional public hospitals. *Australian Journal of Rural Health, 16*, 194-200.
- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one. *Psychological Methods, 18*, 285.
- Lopper, E., Horstmann, K. T., & Hoppe, A. (2020). *The Approach-Avoidance Job Crafting Scale: Development and Validation of a New Measurement*. Paper presented at the Academy of Management Proceedings.
- Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: a literature review. *International Journal of Nursing Studies, 95*, 1-10.
- Lyons, P. (2008). The crafting of jobs and individual differences. *Journal of Business and Psychology, 23*, 25-36.
- Marini, S. D., Hasman, A., & Huijter, H. A. S. (2009). Information technology for medication administration: assessing bedside readiness among nurses in Lebanon. *International Journal of Evidence-Based Healthcare, 7*, 49-58.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological review, 98*, 224.
- Marsh, H. W. (1986). Negative item bias in ratings scales for preadolescent children: A cognitive-developmental phenomenon. *Developmental Psychology, 22*, 37.

- Marsh, H. W. (1996). Positive and negative global self-esteem: A substantively meaningful distinction or artifacts? *Journal of Personality and Social Psychology*, *70*, 810.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, *70*, 149-171.
- Maziak, W., Rastam, S., Mzayek, F., Ward, K. D., Eissenberg, T., & Keil, U. (2007). Cardiovascular health among adults in Syria: a model from developing countries. *Annals of Epidemiology*, *17*, 713-720.
- McClelland, D., Atkinson, J., Clark, R., & Lowell, E. (1953). *The achievement motive*. New York: Appleton-Century-Crofts.
- McClelland, D. C. (1985a). How motives, skills, and values determine what people do. *American Psychologist*, *40*, 812.
- McClelland, D. C. (1985b). *Human motivation*. New York: ScottForesman.
- McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological review*, *96*, 690.
- McClelland, D. C., & Pilon, D. A. (1983). Sources of adult motives in patterns of parent behavior in early childhood. *Journal of Personality and Social Psychology*, *44*, 564.
- McCrae, R. R., & Costa Jr, P. T. (1991). Adding Liebe und Arbeit: The full five-factor model and well-being. *Personality and Social Psychology Bulletin*, *17*, 227-232.
- Minkov, M., Bond, M. H., Dutt, P., Schachner, M., Morales, O., Sanchez, C., . . . Mudd, B. (2018). A reconsideration of Hofstede's fifth dimension: New flexibility versus monumentalism data from 54 countries. *Cross-Cultural Research*, *52*, 309-333.
- Miron, E., Erez, M., & Naveh, E. (2004). Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other? *Journal of Organizational Behavior*, *25*, 175-199.

- Morgan, C. D., & Murray, H. A. (1935). A method for investigating fantasies: The Thematic Apperception Test. *Archives of Neurology & Psychiatry*, *34*, 289-306.
- Muniz, J., Elosua, P., & Hambleton, R. K. (2013). International Test Commission Guidelines for test translation and adaptation. *Psicothema*, *25*, 151-157.
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus user's guide*. In.
- Narayan, L. (2013). Addressing language barriers to healthcare in India. *National Med J India*, *26*, 236-238.
- Nauta, M. M., Liu, C., & Li, C. (2010). A cross-national examination of self-efficacy as a moderator of autonomy/job strain relationships. *Applied Psychology*, *59*, 159-179.
- Nielsen, K., & Abildgaard, J. S. (2012). The development and validation of a job crafting measure for use with blue-collar workers. *Work & stress*, *26*, 365-384.
- Nielsen, K., Antino, M., Sanz-Vergel, A., & Rodríguez-Muñoz, A. (2017). Validating the Job Crafting Questionnaire (JCRQ): A multi-method and multi-sample study. *Work & stress*, *31*, 82-99.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- O*NET. (2021, 2021). Summary Report for: 29-1141.00 - Registered Nurses. Retrieved from <https://www.onetonline.org/link/summary/29-1141.00>
- Oishi, S., Diener, E. F., Lucas, R. E., & Suh, E. M. (1999). Cross-cultural variations in predictors of life satisfaction: Perspectives from needs and values. *Personality and Social Psychology Bulletin*, *25*, 980-990.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3.
- Parker, S. K., & Wu, C.-h. (2014). Leading for proactivity: How leaders cultivate staff who make things happen.

- Paulhus, D. L. (1991). Measurement and control of response bias.
- Peeters, M. C. W., De Jonge, J., & Taris, T. W. (2014). *An introduction to contemporary work psychology*. Hoboken, NJ: Wiley-Blackwell.
- Peral, S. L., & Geldenhuys, M. (2019). A Rasch Analysis of the Tims, Bakker, and Derks (2012) Job Crafting Scale. *Journal of Career Assessment, 27*, 579-593.
- Petrou, P., Bakker, A. B., & van den Heuvel, M. (2017). Weekly job crafting and leisure crafting: Implications for meaning-making and work engagement. *Journal of Occupational and Organizational Psychology, 90*, 129-152.
- Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior, 33*, 1120-1141.
- Pike, K. L. (1967). Etic and emic standpoints for the description of behavior.
- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *Journal of Applied Psychology, 92*, 438.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879.
- Price, R. H., & Bouffard, D. L. (1974). Behavioral appropriateness and situational constraint as dimensions of social behavior. *Journal of Personality and Social Psychology, 30*, 579.
- Prottas, D. (2008). Do the self-employed value autonomy more than employees? Research across four samples. *Career Development International, 13*, 33-45.
- Qu, H.-Y., & Wang, C.-M. (2015). Study on the relationships between nurses' job burnout and subjective well-being. *Chinese Nursing Research, 2*, 61-66.

- Reise, S. P., Morizot, J., & Hays, R. D. (2007). The role of the bifactor model in resolving dimensionality issues in health outcomes measures. *Quality of Life Research, 16*, 19-31.
- Rice, R. W. (1984). *Organizational work and the overall quality of life*. Retrieved from
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53*, 617-635.
- Rieger, A. F. (1949). The Rorschach test in industrial selection. *Journal of Applied Psychology, 33*, 569.
- Rodriguez, D., Patel, R., Bright, A., Gregory, D., & Gowing, M. K. (2002). Developing competency models to promote integrated human resource practices. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management, 41*, 309-324.
- Romero, E., Villar, P., Gómez-Fraguela, J. A., & López-Romero, L. (2012). Measuring personality traits with ultra-short scales: A study of the Ten Item Personality Inventory (TIPI) in a Spanish sample. *Personality and Individual Differences, 53*, 289-293.
- Roth, G., & Assor, A. (2010). Parental conditional regard as a predictor of deficiencies in young children's capacities to respond to sad feelings. *Infant and Child Development, 19*, 465-477.
- Roth, G., & Assor, A. (2012). The costs of parental pressure to express emotions: Conditional regard and autonomy support as predictors of emotion regulation and intimacy. *Journal of adolescence, 35*, 799-808.

- Roth, G., Shahar, B. H., Zohar-Shefer, Y., Benita, M., Moed, A., Bibi, U., . . . Ryan, R. M. (2018). Benefits of emotional integration and costs of emotional distancing. *Journal of Personality, 86*, 919-934.
- Rothermund, K., Voss, A., & Wentura, D. (2008). Counter-regulation in affective attentional biases: a basic mechanism that warrants flexibility in emotion and motivation. *Emotion, 8*, 34.
- Rudolph, C. W., Katz, I. M., Lavigne, K. N., & Zacher, H. (2017). Job crafting: A meta-analysis of relationships with individual differences, job characteristics, and work outcomes. *Journal of Vocational Behavior, 102*, 112-138.
- Ryan, R. M., & Deci, E. L. (2011). A self-determination theory perspective on social, institutional, cultural, and economic supports for autonomy and their importance for well-being. In *Human autonomy in cross-cultural context* (pp. 45-64): Springer.
- Salibi, K. (2003). *A House of Many Mansions: The History of Lebanon Reconsidered* (4 ed.). London: IB Tauris.
- Savani, K., Wadhwa, M., Uchida, Y., Ding, Y., & Naidu, N. (2015). When norms loom larger than the self: Susceptibility of preference–choice consistency to normative influence across cultures. *Organizational Behavior and Human Decision Processes, 129*, 70-79.
- Schaufeli, W. B., & Bakker, A. B. (2003). *UWES - Utrecht Work Engagement Scale: Test Manual*. Department of Psychology, Utrecht University. Utrecht, The Netherlands.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*, 71-92.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online, 8*, 23-74.

- Schippmann, J. S. (2010). Competencies, job analysis, and the next generation of modeling. *Handbook of workplace assessment*, 32, 197.
- Schmidt, E. (2018). For the First Time, 90 Percent Completed High School or More. Retrieved from <https://www.census.gov/library/stories/2018/07/educational-attainment.html>
- Schüler, J., Baumann, N., Chasiotis, A., Bender, M., & Baum, I. (2019). Implicit motives and basic psychological needs. *Journal of Personality*, 87, 37-55.
- Schultheiss, O. C. (2001). An information processing account of implicit motive arousal. In M. L. Maehr & P. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 12, pp. 1-41). Greenwich, CT: JAI.
- Schultheiss, O. C., & Brunstein, J. C. (2010). *Implicit motives*: Oxford University Press.
- Schultheiss, O. C., & Pang, J. S. (2007). Measuring implicit motives. *Handbook of research methods in personality psychology*, 322-344.
- Scott, W. E. (1966). Activation theory and task design. *Organizational Behavior and Human Performance*, 1, 3-30.
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of management*, 30, 933-958.
- Sharabi, H. (1988). *Neopatriarchy: A theory of distorted change in Arab society*. Oxford: Oxford University Press.
- Sheldon, K. M., Abad, N., & Omoile, J. (2009). Testing self-determination theory via Nigerian and Indian adolescents. *International Journal of Behavioral Development*, 33, 451-459.
- Sinclair, S. K. (2020). Understanding Why Nurses Leave — And how to get nurses to stay. Retrieved from <https://www.medpagetoday.com/nursing/nursing/87742>

- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, *20*, 580-591.
- Slabbinck, H., De Houwer, J., & Van Kenhove, P. (2013). Convergent, discriminant, and incremental validity of the pictorial attitude implicit association test and the picture story exercise as measures of the implicit power motive. *European Journal of Personality*, *27*, 30-38.
- Slemp, G. R., & Vella-Brodrick, D. A. (2014). Optimising employee mental health: The relationship between intrinsic need satisfaction, job crafting, and employee well-being. *Journal of Happiness Studies*, *15*, 957-977.
- Snibbe, A. C., & Markus, H. R. (2005). You can't always get what you want: educational attainment, agency, and choice. *Journal of Personality and Social Psychology*, *88*, 703.
- Sorrentino, R. M., & Higgins, E. T. E. (1986). *Handbook of motivation and cognition: Foundations of social behavior*: Guilford Press.
- Spangler, W. D., Tikhomirov, A., Sotak, K. L., & Palrecha, R. (2014). Leader motive profiles in eight types of organizations. *The Leadership Quarterly*, *25*, 1080-1094.
- Sprecher, S., Aron, A., Hatfield, E., Cortese, A., Potapova, E., & Levitskaya, A. (1994). Love: American style, Russian style, and Japanese style. *Personal Relationships*, *1*, 349-369.
- Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (Vol. 6). Needham Heights, MA: Allyn & Bacon.
- Tabar, P. (2009). Immigration and human development: evidence from Lebanon.
- Taleb, Z. B., Bahelah, R., Fouad, F. M., Coutts, A., Wilcox, M., & Maziak, W. (2015). Syria: health in a country undergoing tragic transition. *International journal of public health*, *60*, 63-72.

- Teo, T., & Fan, X. (2013). Coefficient alpha and beyond: Issues and alternatives for educational research. *The Asia-Pacific Education Researcher*, 22, 209-213.
- Thalmayer, A. G., Toscanelli, C., & Arnett, J. J. (2020). The neglected 95% revisited: Is American psychology becoming less American? *American Psychologist*.
- The NOF Competency Committee. (2016). *Massachusetts Nurse of the Future Nursing Core Competencies*. Retrieved from Massachusetts:
- The World Bank. (2018). GDP per capita (current US\$) - India. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IN&most_recent_value_desc=false
- The World Bank. (2019). Lebanon. <https://data.worldbank.org/country/lebanon>
- Thrash, T. M., Cassidy, S. E., Maruskin, L. A., & Elliot, A. J. (2010). Factors that influence the relation between implicit and explicit motives: A general implicit-explicit congruence framework. In O. C. Schultheiss & J. C. Brunstein (Eds.), *Implicit motives* (pp. 308-346). New York: Oxford University Press, Inc.
- Thrash, T. M., & Elliot, A. J. (2002). Implicit and self-attributed achievement motives: Concordance and predictive validity. *Journal of Personality*, 70, 729-756.
- Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology*, 36, 1-9.
- Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80, 173-186.
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, 18, 230.
- Tims, M., Bakker, A. B., & Derks, D. (2014). Daily job crafting and the self-efficacy–performance relationship. *Journal of Managerial Psychology*.

- Tims, M., Derks, D., & Bakker, A. B. (2016). Job crafting and its relationships with person–job fit and meaningfulness: A three-wave study. *Journal of Vocational Behavior, 92*, 44-53.
- Tornau, K., & Frese, M. (2013). Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and their incremental validities. *Applied Psychology, 62*, 44-96.
- Torrance, E. P. (1974). *Torrance tests of creative thinking: Norms-technical manual*. . Lexington, MA: Ginn.
- Triandis, H. (1998). Vertical and horizontal individualism and collectivism: Theory and research implications for international comparative management. *Advances in International Comparative Management, 12*, 7-36.
- Triandis, H. C. (1993). Collectivism and individualism as cultural syndromes. *Cross-Cultural Research, 27*, 155-180.
- Triandis, H. C. (1995). *Individualism and Collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology, 53*, 133-160.
- Tsui, A. S., Nifadkar, S. S., & Ou, A. Y. (2007). Cross-national, cross-cultural organizational behavior research: Advances, gaps, and recommendations. *Journal of management, 33*, 426-478.
- Uchida, Y., & Kitayama, S. (2009). Happiness and unhappiness in east and west: Themes and variations. *Emotion, 9*, 441.
- Uchida, Y., Norasakkunkit, V., & Kitayama, S. (2004). Cultural constructions of happiness: theory and empirical evidence. *Journal of Happiness Studies, 5*, 223-239.

- Uhlmann, E. L., Leavitt, K., Menges, J. I., Koopman, J., Howe, M., & Johnson, R. E. (2012). Getting explicit about the implicit: A taxonomy of implicit measures and guide for their use in organizational research. *Organizational Research Methods, 15*, 553-601.
- UN. (2018). *Working Together for a Secure, Stable, and Prosperous Lebanon*. Retrieved from <http://www.un.org.lb/library/assets/Annual%20UN%20Lebanon%20Report%202018%20ENGLISH-123819.pdf>
- UNDP. (2018a). *Briefing note for countries on the 2018 Statistical Update*. Retrieved from http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/LBN.pdf
- UNDP. (2018b). *Human Development Indices and Indicators: 2018 Statistical Update*. Retrieved from http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/USA.pdf
- UNDP. (2018c). *India: Human Development Indicators*. Retrieved from <http://hdr.undp.org/en/countries/profiles/IND>
- UNDP. (2019). Gaol 5: Gender Equality. Retrieved from <https://www.lb.undp.org/content/lebanon/en/home/sustainable-development-goals/goal-5-gender-equality.html>
- UNHCR. (2019, 31/05/2018). Syria Regional Refugee Response. Retrieved from <http://data2.unhcr.org/en/situations/syria/location/71>
- UNHCR. (2021). UNHCR Lebanon at a glance. Retrieved from <https://www.unhcr.org/lb/at-a-glance>
- van de Riet, J. J., Le Blanc, P. M., & Oerlemans, W. (2015). Leadership and job crafting: Relationships with employability and creativity. *Unpublished master thesis, Eindhoven University of Technology, Netherlands*.

- Van De Schoot, R., Kluytmans, A., Tummers, L., Lugtig, P., Hox, J., & Muthén, B. (2013). Facing off with Scylla and Charybdis: a comparison of scalar, partial, and the novel possibility of approximate measurement invariance. *Frontiers in Psychology, 4*, 770.
- Van de Vijver, F., & Leung, K. (2001). Personality in cultural context: Methodological issues. *Journal of Personality, 69*, 1007-1031.
- van de Vijver, F., & Tanzer, N. K. (2004). Bias and equivalence in cross-cultural assessment: An overview. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology, 54*, 119-135.
- van de Vijver, F. J. (2013). Contributions of internationalization to psychology: toward a global and inclusive discipline. *Am Psychol, 68*, 761-770.
- van de Vijver, F. J., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousand Oaks, CA: Sage.
- van de Vijver, F. J., & Leung, K. (2000). Methodological issues in psychological research on culture. *Journal of Cross-Cultural Psychology, 31*, 33-51.
- Van de Vijver, F. J., & Poortinga, Y. H. (1997). Towards an integrated analysis of bias in cross-cultural assessment. *European Journal of Psychological Assessment, 13*, 29-37.
- Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands–Resources model. *European Journal of Work and Organizational Psychology, 19*, 735-759.
- Van den Broeck, A., Vansteenkiste, M., & De Witte, H. (2008). Self-determination theory: A theoretical and empirical overview in occupational health psychology.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial

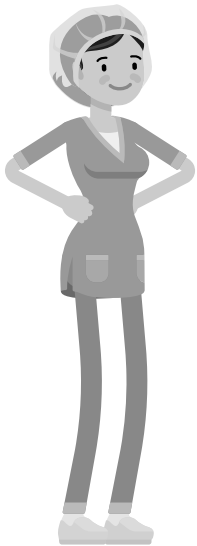
- validation of the Work-related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, 83, 981-1002.
- van der Linden, W. J., & Hambleton, R. K. (2013). *Handbook of modern item response theory*: Springer Science & Business Media.
- van Hooff, M. L., & van Hooft, E. A. (2014). Boredom at work: Proximal and distal consequences of affective work-related boredom. *Journal of Occupational Health Psychology*, 19, 348.
- van Tilburg, W. A., & Igou, E. R. (2012). On boredom: Lack of challenge and meaning as distinct boredom experiences. *Motivation and Emotion*, 36, 181-194.
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3, 4-70.
- Vaughn, L. A. (2017). Foundational tests of the need-support model: A framework for bridging regulatory focus theory and self-determination theory. *Personality and Social Psychology Bulletin*, 43, 313-328.
- Visser, B. A., & Pozzebon, J. A. (2013). Who are you and what do you want? Life aspirations, personality, and well-being. *Personality and Individual Differences*, 54, 266-271.
- Vlachopoulos, S. P. (2008). The basic psychological needs in exercise scale: measurement invariance over gender. *Structural Equation Modeling: A Multidisciplinary Journal*, 15, 114-135.
- Vlachopoulos, S. P., Ascí, F. H., Cid, L., Ersoz, G., González-Cutre, D., Moreno-Murcia, J. A., & Moutão, J. (2013). Cross-cultural invariance of the basic psychological needs in exercise scale and need satisfaction latent mean differences among Greek, Spanish, Portuguese and Turkish samples. *Psychology of Sport and Exercise*, 14, 622-631.

- Vroom, V. H. (1964). *Work and Motivation*. New York, NY: John Wiley and Sons.
- Vukelić, M., Petrović, I. B., & Čizmić, S. (2021). Job crafting in Serbia: Serbian mixed-method validation of the Job Crafting Scale. *Psihologija*, 54, 95-122.
- Wang, H.-J., Demerouti, E., Blanc, P. L., & Lu, C.-Q. (2018). Crafting a job in ‘tough times’: When being proactive is positively related to work attachment. *Journal of Occupational and Organizational Psychology*.
- Wang, H., Demerouti, E., & Bakker, A. B. (2017). A review of job crafting research: The role of leader behaviors in cultivating successful job crafters. In S. K. Parker & U. K. Blindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 77-104). New York, NY: Routledge.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063.
- WEF. (2016). *The Global Gender Gap Report 2016*. Retrieved from http://www3.weforum.org/docs/GGGR16/WEF_Global_Gender_Gap_Report_2016.pdf
- Weisberg, R. W. (1988). Problem solving and creativity. In R. J. Sternberg (Ed.), *The Nature of Creativity: Contemporary Psychological Perspectives* (pp. 148-176). Cambridge: Cambridge University Press.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12, 173-194.
- Winter, D. G. (1973). *The power motive*. New York: Free Press.
- Winter, D. G. (1991). Measuring personality at a distance: Development of an integrated system for scoring motives in running text. In D. J. Ozer, J. M. Healy, & A. J. Stewart

- (Eds.), *Perspectives in personality: Approaches to understanding lives* (pp. 59-89). Philadelphia, PA: Jessica Kingsley.
- Winter, D. G. (1996). *Personality: Analysis and interpretation of lives*. New York: McGraw-Hill.
- Winter, D. G., John, O. P., Stewart, A. J., Klohnen, E. C., & Duncan, L. E. (1998). Traits and motives: Toward an integration of two traditions in personality research. *Psychological review*, *105*, 230.
- Woike, B. A. (2008). A functional framework for the influence of implicit and explicit motives on autobiographical memory. *Personality and Social Psychology Review*, *12*, 99-117.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, *26*, 179-201.
- Wu, C.-H., Luksyte, A., & Parker, S. K. (2015). Overqualification and subjective well-being at work: The moderating role of job autonomy and culture. *Social Indicators Research*, *121*, 917-937.
- Wu, S., & Keysar, B. (2007). The effect of culture on perspective taking. *Psychological Science*, *18*, 600-606.
- Yepes-Baldó, M., Romeo, M., Westerberg, K., & Nordin, M. (2018). Job crafting, employee well-being, and quality of care. *Western journal of nursing research*, *40*, 52-66.
- Zeinoun, P., Daouk-Öyry, L., Choueiri, L., & Van de Vijver, F. J. R. (2017). A mixed-methods study of personality conceptions in the Levant: Jordan, Lebanon, Syria, and the West Bank. *Journal of Personality and Social Psychology*, *113*, 453.
- Zhang, Y., & Mittal, V. (2007). The attractiveness of enriched and impoverished options: Culture, self-construal, and regulatory focus. *Personality and Social Psychology Bulletin*, *33*, 588-598.

- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44, 682-696.
- Zhou, J., & Shalley, C. E. (2003). Research on employee creativity: A critical review and directions for future research. In *Research in personnel and human resources management* (pp. 165-217): Emerald Group Publishing Limited.
- Ziegler, M., Kemper, C. J., & Krueger, P. (2014). Short scales—Five misunderstandings and ways to overcome them. In: Hogrefe Publishing.
- Zimbardo, P. G. (2012). Does psychology make a significant difference in our lives? In *Applied Psychology* (pp. 39-64): Psychology Press.

Scientific Summary



Scientific Summary

My dissertation was driven by three themes that lie at the core of job crafting and that are related to its main defining pillars. The first theme is related to the argument that job crafting is a set of creative work behaviors that employees engage in (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Though never empirically tested, the relationship between creativity and job crafting has long been argued. Job crafting and creativity arguably share a lot of features, as they both begin at the cognitive level and require some level of problem-solving (Zhou & George, 2001). The Second theme is related to the relationship between job crafting and motivation. Job crafting has been argued to be driven by three basic motives or drivers: the need to establish control over one's work, the need to create a positive image of one's self, and the need to create and develop relationships with others (Wrzesniewski & Dutton, 2001). Engaging in job crafting allows individuals to satisfy those needs and achieve positive work- and non-work-related outcomes (for an overview, check Rudolph, Katz, Lavigne, & Zacher, 2017). The third and final theme is that job crafting is a WEIRD (western, educated, industrialized, rich, and developed) (Henrich, Heine, & Norenzayan, 2010) concept that is anchored by characteristics that are not equally present and encouraged in different cultures. The employee who engages in job crafting is assumed to have the urge and the room to do so and it is thought that as a result he or she will achieve positive outcomes no matter what context he or she is in. However, cultures vary in terms of how much encourage and facilitate agency (Triandis, 1993, 1995), and this might influence the engagement in job crafting. Guided by the three themes mentioned above, I conducted three studies among nurses working on hospital settings.

Crafty Nurse, Happy Nurse

In the first study I set out to empirically investigate the relationship between job crafting and individual-level antecedents, namely, creativity and personality in the Arab

world and job-level antecedents, namely, job autonomy in sample of non-Western, Lebanese, nurses working in hospital settings. I collected cross-sectional data from 547 nurses working in seven hospitals scattered across Lebanon. The data was analyzed using structural equation modeling (SEM) in which job crafting was modeled in terms of its three approach components: increasing challenging job demands, increasing structural job resources, and increasing relational job resources. The results indicated that creativity, job autonomy, and the personality facet of agreeableness were significantly related to the three approach job crafting dimensions, while only two of these dimensions were related to the outcome variable subjective well-being (SWB). Moreover, the results of this study showed that increasing structural job resources and increasing challenging job demands have partial mediation roles in the relationship between creativity and SWB, and full mediation roles in the relationship between job autonomy and SWB. I concluded that nurses who score high on creativity are more likely to engage in job crafting, which is in turn linked to higher SWB. Additionally, the personality facets extraversion and emotional stability are linked to higher SWB.

Job Crafting is WEIRD

In the second study, my aim was twofold: I first set out to investigate the measurement invariance of the tool that has been used to measure job crafting and that is based on the most widely used four-dimensional structure of job crafting (Tims, Bakker, & Derks, 2012). Job crafting research has been mostly done in Western societies, where an agentic and individualistic view of the employee prevails, however, this view is not common across all cultures. Even in the small number of studies that have explored job crafting in non-Western contexts, culture was never taken as an influencing factor (see e.g., Rudolph et al., 2017). Accordingly, it is important to establish measurement invariance before making conclusions about the functionality of job crafting. I then proceeded to explore the functionality of job crafting, by investigating it in relation to job satisfaction through Basic

Need Satisfaction (BNS). In order to achieve both aims, I collected data from three samples of nurses that vary across several important cultural dimensions (Lebanon, N = 109; India, N = 115; USA, N = 139). I conducted a Multigroup Confirmatory Factor Analysis (MGCFA) that showed that only two job crafting dimensions (increasing social job resources and increasing challenging job demands) and one basic need (autonomy) were invariant across the three groups. Further analyses showed that the job crafting dimensions related differently to the need for autonomy and the outcome variable, job satisfaction, in the three samples.

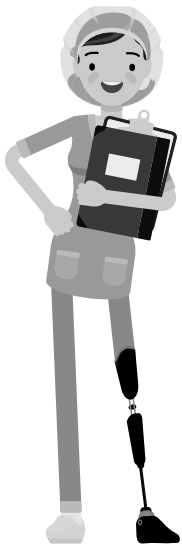
Implicitly and Explicitly Motivated to Job Craft

In the third study, my goal was to understand the motivational antecedents of employees who engage in one of the job crafting dimensions, increase challenging job demands, at the implicit and explicit levels. Job crafting has been argued to be a form of self-regulatory adaptation strategy (Bakker & Oerlemans, 2019) driven by basic needs and motives (Wrzesniewski & Dutton, 2001). However, we have limited empirical evidence supporting this notion. Accordingly, I adopted a dual systems view of motivation and investigated implicit (unconscious) motives and explicit (conscious) motives simultaneously in relationship to increasing challenging job demands. I hypothesized that that explicit integrative power motivation would be directly related to increasing challenging job demands and that this relationship is amplified by higher implicit self-regulated power motivation. Moreover, I argued that increasing challenging job demands has a mediating role in the relationship between motive interaction and work engagement, which in turn, will be positively linked to job satisfaction. In order to test the hypotheses, I collected data from 360 Lebanese nurses working in hospital settings. The results of the study indicated that explicit integrative power motivation predicts increasing challenging job demands and that this effect becomes stronger when coupled by high implicit self-regulated power motivation. Moreover, SEM indicated that motive interaction is linked to work engagement only through increasing

challenging job demands and that job satisfaction and work engagement are significantly related.

This research expands our knowledge about job crafting as it explores it in a highly nuanced professional and cultural context in order to understand how this context facilitates or hinders the engagement in job crafting. Nurses who score high creativity and implicit and explicit self-regulated power motivation, and who have high job autonomy at work (separately) are more likely to engage in job crafting, which is in turn is related to higher SWB, work engagement, and job satisfaction. Moreover, based on the results of this research we now know that job crafting is not as universal as previously assumed and that more research should be done to better understand what it includes in different cultural contexts.

Acknowledgements



Acknowledgments

Pursuing a PhD can be an emotional rollercoaster. As much as it is full of happy moments where you celebrate the small wins, it is also full of sad and frustrating moments where you feel like you will not be able to finish. Luckily for me, I had a very strong support system made up of my supervisors, my family, and my friends who helped get through all downs and who celebrated with me all the ups.

Dr. Michael Bender, thank you for being the supportive, understanding, and patient supervisor you are. Thanks to you, I have become a better and more critical researcher. I appreciate all the feedback and advise that I have received (and still am receiving) from you as they have helped grow professionally and personally. You always seem to have the right things to say and know what the right things to do are. I am proud of myself because I got to work with someone like you! I also really enjoyed the dinners that you and Martina hosted at your place to make me feel more welcome and less homesick; they really worked!

Dr. Lina Daouk-Öyry, when I think about the major changes in my life, I realize that you were involved in all of them. I admire the passion you have for your research, your family, and our country; you remind me of how powerful Lebanese women can be. You believed in me at times when I did not even believe in myself. Joining the Evidence-based Healthcare Management Unit (EHMU) was one of the best things that ever happened to me; it helped me evolve on many levels! Thank you for supporting me throughout my PhD and for empowering me to become the researcher and woman I am now.

Dr. Athanasios Chasiotis, I appreciated that you always asked about how I was doing before asking about my research. You are a well-established researcher in your field, and I appreciate the time that you gave to train and work with me. You always managed to strike a balance between being approachable and professional and I never hesitated when I had a question to ask you. You constantly encouraged and believed in me, thank you so much!

Prof. Dr. Fons van de Vijver, if it were not for you, none of this would have happened. You made this PhD possible, and it breaks my heart that you are not here to see the final product. Nonetheless, you live through your work and the work of all your PhD students who, like me, you have patiently trained and supported. Thank you for giving me the chance to achieve my dreams.

Prof. Dr. Kutlay Yagmur, thank you for taking me on as your PhD student at a very short notice. You always had my best interest in mind, and I felt like you were one of my family members. Our walks in “Oude Warande” were the highlights of my last stay in Tilburg; I really enjoyed our intellectual conversations and the life lessons that I think I will never stop learning from you!

Dr. Yvette Stráznický van Osch, thank you for being my mentor in the final year of my PhD and for being there for me when I was drowning in self-doubt to pick me up and encourage me to take those final steps towards reaching my goal. You taught me how to be myself unapologetically!

I would also like to thank my defense committee members: Prof. Dr. Nicola Baumann, Prof. Dr. Tanja Bipp, Prof. Dr. Marise MPH Born, Prof. Dr. Dorien Kooij, and Prof. Dr. Karsten Müller for the time and effort they put into assessing my dissertation. I am honored to have scholars such as yourselves review and comment on my dissertation.

Mama and baba, no words can express how grateful and thankful I am to you. Not only did you give me everything, but you also gave me everything you had. You were always my biggest fans and I hope one day to be able to see myself the way you see me. Making you proud is one of the most important things I want to achieve in life. You always supported me, and you never stopped believing in me. You gave me opportunities to grow and never stood in the way of my dreams. I love you so much and I hope I can give back to you a slight portion of whatever you gave to me. Marwan, Cécile, and Léo (the zghiri), thank you for also believing in me and for being there for me when I needed you. Spending time with you made me happy and whenever I was in Tilburg, seeing you reminded me of home. I love you so much!

Mostafa and Layal, thank you for all the late night videocalls we had, thank you for hearing my concerns and for always telling me that things will be fine. You will always be close to my heart no matter how far we are.

Heleen, Nico, Nina, Jesse, and Evi, thank you for being the generous, kind, and thoughtful people you are! Thank you for being my family in the Netherlands. Even when I returned to Lebanon, you never stopped asking about me and making sure that I was okay. Paul and Mary, thank you for being so helpful and kind; you gave a home when I only asked for a house!

Tina, you made this PhD process bearable. I was lucky to have my best friend as my colleague. You were always there to encourage me when things were not working very well. I am happy I got to share this journey with you! I enjoyed and looked forward to every mini-shopping trip, every defrosting break, and every lunch break we took together while at EHMU. Thank you for all your love and support! Mr. Hossein, thank you for all the long and deep talks we used to have. You really helped me see things more clearly and from new angles. You stood by my side through thick and thin and after our talks I felt like I can face the world! Lama, although we did not talk much, every time we did, you encouraged and supported me. Thank you for believing in me and being there for me no matter how far and busy you were. Farah, thank you for being the professional and mature friend to whom I can always come with my problems and frustrations! This helped me a lot! Lucy, your perseverance, and strength have always inspired me. You used to constantly remind me of my worth and how I have what it takes to finish the PhD. Thank you for always being there for me no matter what! Line and Nour, thank you for being the fun, kind, and supportive colleagues you were! You are the only reason I miss Dale Home! Byron and Jamis, thank you for being there for me even when I was in Lebanon. Byron, thank you for being so supportive and selfless! The movie nights at your place were and still are one of the things I love and will miss the most about Tilburg once I move. Jamis, thank you for all your help and support! You were always ready and quick to answer my questions even when you were busy and never expected anything in return. I am lucky to have met you both and I am happy that we became close friends because of this PhD.

Finally, to everybody who was part of this journey, and who I did not mention above, *thank you!*

أنا خلّصت يا تينا

