

## Copyright Undertaking

This thesis is protected by copyright, with all rights reserved.

**By reading and using the thesis, the reader understands and agrees to the following terms:**

1. The reader will abide by the rules and legal ordinances governing copyright regarding the use of the thesis.
2. The reader will use the thesis for the purpose of research or private study only and not for distribution or further reproduction or any other purpose.
3. The reader agrees to indemnify and hold the University harmless from and against any loss, damage, cost, liability or expenses arising from copyright infringement or unauthorized usage.

### IMPORTANT

If you have reasons to believe that any materials in this thesis are deemed not suitable to be distributed in this form, or a copyright owner having difficulty with the material being included in our database, please contact [lbsys@polyu.edu.hk](mailto:lbsys@polyu.edu.hk) providing details. The Library will look into your claim and consider taking remedial action upon receipt of the written requests.

WHY ARE WE COMMITTED TO WORK AND DOES SUCH COMMITMENT PAY OFF?

A CROSS-CULTURAL INVESTIGATION OF THE NOMOLOGICAL NET

SURROUNDING THE RELATIVE CENTRALITY OF WORK OF INDIVIDUALS

QING LU

Ph.D

The Hong Kong Polytechnic University

2016

The Hong Kong Polytechnic University

Department of Management and Marketing

WHY ARE WE COMMITTED TO WORK AND DOES SUCH COMMITMENT PAY OFF?

A CROSS-CULTURAL INVESTIGATION OF THE NOMOLOGICAL NET

SURROUNDING THE RELATIVE CENTRALITY OF WORK OF INDIVIDUALS

QING LU

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Doctor of Philosophy

July 2016

## CERTIFICATE OF ORIGINALITY

I hereby declare that this thesis is my own work and that, to the best of my knowledge and belief, it reproduces no material previously published or written, nor material that has been accepted for the award of any other degree or diploma, except where due acknowledgement has been made in the text.

\_\_\_\_\_ (Signed)

\_\_\_\_\_QING LU\_\_\_\_\_ (Name of student)

## **ABSTRACT**

This dissertation investigated the relative centrality of work (RCW) of individuals under a cross-cultural context, specifically (1) the antecedent of RCW and (2) its hedonistic consequence. We performed two empirical studies. In Study 1, we examined how the positive work orientation of individuals, work as good (WAG), is related to RCW. Our data from 29,080 respondents across 45 countries revealed that WAG of individuals was positively correlated with their RCW and that such positive relationship was stronger in those nations that emphasized self-directedness or civility as socialization goals.

In Study 2, we investigated contextual variables at different levels (i.e., job complexity (JC) at the individual level and performance orientation (PO) and national RCW at the country level) as moderators in the relationship between the RCW and the Life Satisfaction (LS) of individuals. Our data from 22,796 respondents across 32 nations revealed that considering work as a central life interest (i.e., high RCW) decreased individuals' LS. Although a positive working experience that is engendered from doing complex jobs (i.e., high JC) may downplay this negative trend, such negative effect only becomes flat when national cultures emphasize gaining rewards at work (i.e., high PO).

In a supplementary study, we strengthened Study 2 by replicating its results with a bi-cultural (India vs. U.S), and time-lagged research design. The theoretical and practical implications of these studies are discussed in this paper.

## **ACKNOWLEDGMENTS**

Studying Ph.D. is like jogging on a valley trail with constant ups and downs while senses of fatigue and boredom occasionally come upon you. The worst thing about this journey is that you often find yourself alone. However, such adversities are no longer considered hindrances in this journey after you learn to trust yourself, enjoy the scenery, and appreciate what you receive from your fellow passengers. This journey has not only equipped me with various tools that can help me in my future academic career but has also provided me with opportunities for personal maturity and growth. I am grateful for the long years I have spent pursuing my Ph.D. I have transformed from a man of great dependence and high entitlement to a man who can solve his problems independently.

I thank my supervisor Professor Huang Xu for his visionary leadership, encouraging words, and insightful suggestions that have motivated me to continue this journey. Professor Huang is man of consideration who, regardless of his mood, cheers me up with his humor and positivity whenever I feel frustrated with my research. I wish that I will inherit such quality: not to transmit negative emotions but to become a source of positivity and encouragement to others. Professor Huang is also man of persistence as reflected in his consistent academic pursuits. He says, “Nothing can be completed” in our field, thereby encouraging me to continue with my learning. His passion for life has inspired me to leave my comfort zone. I even began to drink wine and jog everyday while I was under his

tutelage.

I also thank Professor Michael Bond for introducing me and encouraging me to explore cross-cultural research. His superb storytelling and strong capability of linking theory with reality have always provided me with inspiration. His elegant writing and humble academic dialogue will take a lifetime to learn.

As a scholar full of artistic temperament, Professor Jason Shaw has also influenced and taught me many things, such as evaluating papers, reading poems, and appreciating oil paintings. His teachings and example have allowed me to see the inner transcending power of academic research. To produce an excellent research, Professor Shaw taught me that I should sink myself into the well of grief while simultaneously looking up into the sky. I also aim to learn his excellent time management and writing skills.

Many professors in our department and also in other institutions in HK have also lent me their hand during my studies. For instance, my co-supervisor Professor Cynthia Lee monitored the progress of my study and offered me with many suggestions on course selection and career development. My committee members, Professors Liu Wu and Lam Wing, taught me how to design cross-cultural research and write academic papers. With their intellectual insights, my two external examiners -- Professor Gong Yaping from HKUST and Professor Chen Ziguang from CityU -- helped me to think more clearly of my research. Professor Ricky Chan has become my jogging buddy over the past year. Professor Kenneth

Law from CUHK and Professor Prithviraj Chattopadhyay from HKUST are among my very first mentors on methods and theory. I owe my thanks to all of these professors.

I also thank my peers and friends in the same department, such as Mr. Tang Yipeng, Ms. Ouyang Kan, Mr. Shi Shuisheng, Ms. Bavik Yuenlam, Mr. Zhou Xiang, Mr. Wang Chongwei, Ms. Xiao Jialing, and Mr. Si Wei, for their support in the development and writing of this thesis. I especially thank my fellow apprentice, Xu Hanhua, for her help in collecting data for the supplementary study and for her surprising drinking capacity. I also thank my friends from other institutions, such as Mr. Li Fangjun, Ms. Xu Qin, Mr. Zhong Weiguo, and Mr. Wang Bin from CityU, Ms. Zhang Jun from CUHK, Mr. Ge Lipeng from HKUST, and Mr. Zhang Qilin from HKU, who laughed and wept with me throughout my Ph.D. studies.

I give my biggest thanks to my parents for their unconditional love and support.

May this work act as a vessel to honor my savior and my rock, Jesus Christ.



## TABLE OF CONTENTS

<b>ABSTRACT .....</b>	<b>4</b>
<b>ACKNOWLEDGMENTS .....</b>	<b>5</b>
<b>TABLE OF CONTENTS.....</b>	<b>8</b>
<b>LIST OF TABLES AND FIGURES .....</b>	<b>11</b>
<b>CHAPTER 1 INTRODUCTION .....</b>	<b>13</b>
Research Background .....	13
Research Gaps.....	14
Dissertation Overview .....	16
Research Contributions.....	19
<b>CHAPTER 2 LITERATURE REVIEW .....</b>	<b>23</b>
Work Centrality .....	23
“Work as Good” Orientation .....	36
Job Complexity.....	39
National Goals for the Socialization of Children.....	46
Performance Orientation.....	49
Life Satisfaction/Subjective Well-being .....	51
<b>CHAPTER 3 THEORY AND HYPOTHESES .....</b>	<b>57</b>
Relative Centrality of Work.....	57
Predicting Relative Centrality of Work .....	58
Moderating Roles of National Goals for the Socialization of Children .....	60
Hedonic Consequence of RCW .....	63

First-Order Moderating Role of Job Complexity .....	64
Second-Order Moderating Role of National Culture.....	66
<b>CHAPTER 4 STUDY 1.....</b>	<b>69</b>
<b>THE FORMATIVE PROCESS OF RELATIVE CENTRALITY OF WORK</b>	<b>69</b>
Participants.....	69
Assessments and Measures .....	72
Analytical Strategy .....	75
Results.....	76
Discussion.....	80
<b>CHAPTER 5 STUDY 2.....</b>	<b>86</b>
<b>THE CONSEQUENTIAL EFFECT OF RELATIVE CENTRALITY OF WORK</b>	<b>86</b>
Participants.....	86
Assessments and Measures .....	88
Analytical Strategy .....	90
Results.....	91
Discussion.....	96
<b>CHAPTER 6 SUPPLEMENTARY STUDY FOR STUDY 2.....</b>	<b>102</b>
<b>TESTS FOR VALIDITY AND GENERALIZABILITY .....</b>	<b>102</b>
Extensions.....	102
Participants.....	102
Assessment and Measures .....	103
Results.....	105
Summary .....	109
<b>CHAPTER 7 CONCLUSIONS .....</b>	<b>112</b>

Summary of Key Findings and Implications .....	113
Limitations .....	118
Directions for Future Research .....	119
<b>APPENDIX.....</b>	<b>124</b>
APPENDIX 1 ITMES IN WORLD VALUE SURVEY FOR STUDY 1 .....	124
APPENDIX 2 ITMES IN WORLD VALUE SURVEY FOR STUDY 2 .....	126
APPENDIX 3 ITMES FOR SUPPLEMENTARY STUDY .....	127
<b>REFERENCE.....</b>	<b>129</b>

## LIST OF TABLES AND FIGURES

Table 4.1 Demographics for the National Samples in the Analysis (Study 1).....	70
Table 4.2 Means, Standard Deviations, and Pearson Correlations between Variables of Interest (Study 1).....	76
Table 4.3 Multilevel Analysis in Predicting Relative Centrality of Work (Study 1).....	78
Table 5.1 Demographics for the National Samples in the Analysis (Study 2).....	87
Table 5.2 Means, Standard Deviations, and Pearson Correlations between Variables of Interest (Study 2).....	92
Table 5.3 Multilevel Analysis in Predicting Life Satisfaction (Study 2).....	94
Table 6.1 Means, Standard Deviations, and Pearson Correlations between Variables of Interest (Supplementary Study).....	106
Table 6.2 Multilevel Analysis of the Effects of Relative Centrality of Work on Life Satisfaction (Supplementary Study).....	108
Figure 1.1 The Nomological Net surrounding the Relative Centrality of Work.....	21
Figure 4.1 Interaction between Work as Good and Self-directedness on the Prediction of Relative Centrality of Work (Study 1).....	79
Figure 4.2 Interaction between Work as Good and Civility on the Prediction of Relative Centrality of Work (Study 1).....	79

Figure 5.1 Interaction between Relative Centrality of Work and Job Complexity on the Prediction of Life Satisfaction (Study 2).....	95
Figure 5.2 Interaction between Relative Centrality of Work, Job Complexity, and Performance Orientation on the Prediction of Life Satisfaction (Study 2).....	95
Figure 6.1 Interaction between Relative Centrality of Work (RCW) and Job Complexity on the Prediction of Life Satisfaction (Supplementary Study).....	109
Figure 6.2 Interaction between Relative Centrality of Work (RCW), Job Complexity (JC), and Performance Orientation (India/US = High Country/Low Country) on the Prediction of Life Satisfaction (Supplementary Study).....	109

## CHAPTER 1 INTRODUCTION

### Research Background

Work, love, and play are the great balance wheels of man's being.

*Orison Swett Marden*

Human life is a floor that is laid out into different sectors and domains. In the daytime, we enter the work sector and act as wage earners and participants in the wider society. At nighttime, we return home to spend time with our families. During weekends and holidays, we enjoy our leisure time; meet our friends; go to churches, mosques, or temples; and/or contribute to our communities. Our involvement in these different life domains determines how well we, as human beings, live a complete and fulfilling life. Previous studies show that our participation in each life domain can benefit our overall personal development and mental health (e.g., Friedman, Kern, & Reynolds, 2010). However, how people decide their levels of investment into different life domains warrants further study.

Among these life domains, work-related activities usually cover a central position for employed persons and consume much of their time (England & Misumi, 1986; Harpaz & Fu, 1997). As the bedrock of human civilizations, work is fundamentally significant to most individuals. Therefore, this research aims to explore the importance of work in the life of individuals and to answer two important questions, namely, what solicits us to emphasize work relative to other life domains (i.e., families, friends, and communities) and how is such

emphasis associated with our happiness? To address these questions, this dissertation employs work centrality, which refers to the importance of work in the life of an individual (Paullay, Alliger, & Stone–Romero, 1994), as its central construct.

Related studies identify several important correlates of work centrality. Some studies reveal that males or individuals with conscientiousness and are living under low industrialization tend to think highly of their work and consider their work as their central life interest (Harpaz & Fu, 1997; Parboteeah & Cullen, 2003). Other studies show that work centrality is positively correlated with the job satisfaction and organizational and career commitment of individuals.

## **Research Gaps**

Despite the advances in the literature, the existing approaches to understanding the place of work in the life of an individual have several limitations. First, most of the prior studies on work centrality (e.g., Bal & Kooij, 2011; Parboteeah & Cullen, 2003) are based on the measure that reflects the psychological importance of work to an individual yet ignores its interconnection with other life domains. Consequently, most of the prior findings based on the “absolute” work importance ratings of individuals may not be generalized to describe their overall lives, thereby failing to produce a complete understanding of the role of work in the life of individuals.

Second, given that work may be defined differently across nations and that national culture shapes the choices, commitments, and values of individuals about work (Hofstede, Hofstede, & Minkov, 2010), many studies on work centrality are conducted with culture-free assumptions. These studies also pay limited attention to potential cross-cultural differences in examining the causes and consequences of work centrality (e.g., Harpaz & Fu, 1997; Mannheim, 1993). Therefore, the cultural and societal contexts that surround the formative and consequential processes of work–life options must be investigated before examining how such processes are moderated by specific cultural dimensions.

Third, previous studies on work centrality focus on broad individual characteristics, immediate work contexts, and nation-level institutions; however, they ignore how important attitude variables reflect the work orientations of individuals. The relative emphases that individuals place on work are influenced not only by their generalized personalities, beliefs, and cultural institutions but also by their orientations and attitudes toward work specifically or paid employment generally (Hofstede & Bond, 1988; Schwartz, 2011).

Fourth, work centrality may produce a series of positive work states (i.e., job satisfaction and organizational commitment), but whether the overall hedonic states of individuals are increased by considering work as a central life interest remains unknown.

First, those individuals that emphasize work may still not consider work as a central life interest because work importance only captures the “absolute” importance of work, but work,



as a central life interest, necessitates the individuals to overemphasize work relative to other life domains. Second, although the positive work states that result from work achievements or satisfied needs can generally improve the well-being of individuals (i.e., Judge & Watanabe, 1993), the other valuable needs (i.e., relationships and love) that are satisfied by other life domains (i.e., families, friends, and religion) may be more important than work. Therefore, the benefits from work dedication may be counterbalanced or reversed when the other life domains are compressed or marginalized.

## **Dissertation Overview**

This thesis aims to fill the above gaps and extend the present understanding of the role of work in the overall lives of individuals. First, inspired by England and Misumi (1986), Meaning of Working (MOW, 1987), and Schwartz (1999), we employ the relative centrality of work (RCW) as a relative conceptualization to investigate work centrality. Specifically, we define RCW as the psychological importance that people place on work relative to other major life domains, such as leisure, family, and religion. This conceptualization differs from many other prevailing conceptualizations (i.e., Paullay et al., 1994) by capturing the “relative” (instead of the “absolute”) importance of work (or paid employment in general) in the life of an individual.

Second, given that high work centrality usually implicates the identification or involvement of an individual with his/her working role (Diefendorff, Brown, Kamin, & Lord,

2002), previous studies (e.g., Bal & Kooij, 2011) tend to adopt the identification mechanism to explain how individuals with certain personalities or living under certain nations tend to identify themselves with their working roles. These studies adopt the needs gratification framework to determine why work centrality improves the work attitudes and outcomes of individuals by increasing their motivations and achievements in the workplace. By contrast, considering work as a portion of an individual's overall engagement in living may generate different results in terms of the extent to which individuals choose to embrace work psychologically and aim for a work-centered life goal. These results may contribute novel perspectives to the extant literature on work centrality.

Correspondingly, this dissertation aims to answer the following questions: under different cultural contexts, (1) how can the orientation of individuals toward work (or paid employment in general) contribute to their RCW, and (2) how can RCW influence the subjective well-being of individuals? We use the active work orientations (“work as good” or WAG) of individuals as an antecedent because as a product of their long-term socialization and personal life experiences, the valence of such orientations is pivotal to their work–life options, that is, the positive or negative attitudes of these individuals toward paid employment are generally pivotal to their emphasis on work. We then select Life Satisfaction (LS), a proxy of well-being, as the consequence of RCW because LS reflects the cognitive

aspects of subjective well-being and thus better captures a picture that individuals evaluate their lives after their work-life options.

We examine the nomological net that surrounds RCW to explore the antecedents, consequences, and boundary conditions of our focal construct. We investigate the model in two studies, with each study emphasizing either the formative process or the influence of RCW. Regarding the formative process of RCW, we examine how the two national goals for the socialization of children (NGSC) (i.e., self-directedness and civility; Bond & Lun, 2014) moderate the relationship between the WAG orientations and RCW of individuals. We use national socialization goals because cultivating individual values regarding work and non-work life is an indispensable gradient of the socialization profile of a nation (Bond & Lun, 2014) and previous studies demonstrate that these goals are important in influencing the future life choices of individuals (Maccoby, 1992). Given that these goals represent the social beliefs about what can benefit the next generation, they can also reflect the true values and beliefs of a society (Jing & Bond, 2015). In sum, the personal work attitudes of an individual can be transformed into actual work–life options if these attitudes are congruent with the socialization goals of the nation.

In Study 2, we examine the influence of RCW on the LS of employees. Given the elusive nature of this relationship, we do not propose a direct hypothesis between these two variables but instead focus on how such relationship is influenced by both individual-level

work complexity and nation-level performance-oriented cultural values. We hypothesize that the current job of employees provides them with first-hand work experience, thereby constituting a direct confirmation to their work-centered life goal. The work endorsement of the culture may constitute an external confirmation and strengthen the fit between the person and his/her immediate working context. We select JC as the individual-level contextual variable because compared with other measures of job features (i.e., task autonomy), JC encompasses a broader spectrum of job contents that allow individuals to execute their talents in the workplace (Shaw & Gupta, 2004). At the country level, we select PO values and the aggregate form of individual RCW, which represent the work endorsement of a society from cultural value and practice perspectives (Javidan, 2004), because they represent the emphasis of a society on work in two basic formats of culture, namely, values and behaviors.

## **Research Contributions**

By establishing an overarching model (Figure 1.1), we aim to contribute to the literature on several topics. First, unlike persuasive operationalizations that employ the “absolute” work importance measures, this study employs a “relative” operationalization to capture RCW. Such operationalization goes beyond the working arena of individuals to reveal the relative roles of work in their overall lives. Using this measure, we also examine the correlates of RCW under a multinational context. Specifically, with regard to the formative process of RCW, we elucidate a direct relationship between the RCW of

individuals and their positive attitudes toward work (i.e., WAG) and then identify national goals for self-directedness and civility as the contexts in strengthening such relationship.

Alternatively, with regard to the effect of RCW on LS, we integrate the moderators from the current job characteristics of individuals into the “distal” national cultures that emphasize the pivotal roles of certain contexts to determine the hedonistic states of individuals from their work-oriented life pursuits.

Second, we contribute to the subjective well-being literature by examining the relationship between RCW and LS. One relevant strand of well-being literature (e.g., Kasser & Ryan, 1993; Kasser, 1996) examines how the life goals of individuals (i.e., financial success and self-acceptance) influence their well-being, whereas another strand (e.g., Judge & Watanabe, 1993) follows a bottom-up process to examine how the achievements of individuals at a specific life domain (i.e., job satisfaction) can predict their overall LS.

However, to the best of our knowledge, no study has examined the roles of generalized life goals or orientations toward work. Therefore, we do not know the degree to which the hedonism of individuals depends on whether they select a work-centered life goal or not. If such relationship exists across nations, then we suggest that the happiness of individuals has long been decided by a much anterior variable, that is, the life goals that they choose to pursue.

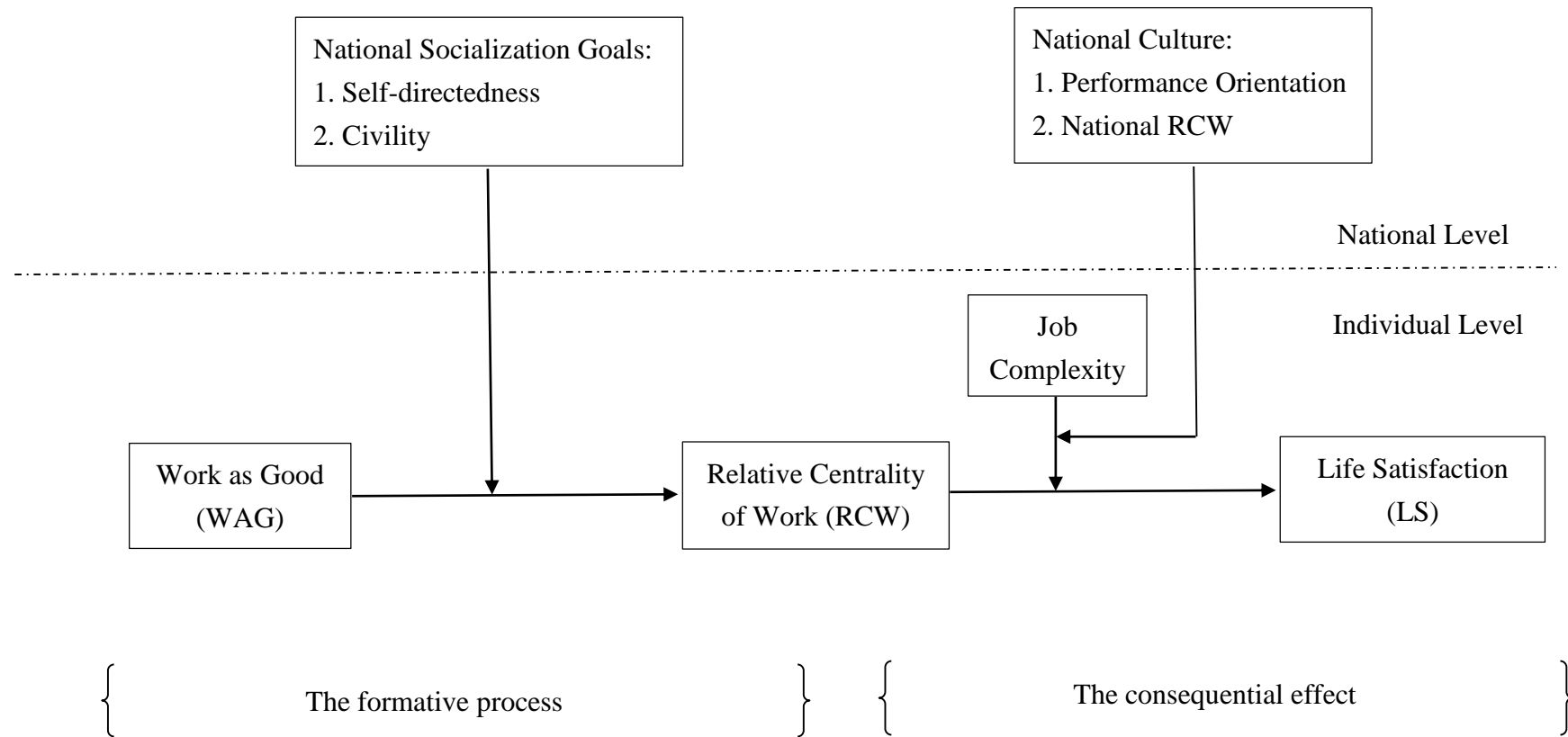


Figure 1.1. The Nomological Net surrounding the Relative Centrality of Work.

Third, by employing JC and two cultural indices (i.e., PO and national RCW) as contextual variables in the consequential process of RCW, we contribute to the literature by examining how different levels of moderating variables jointly influence the formation of LS. As mentioned previously, JC reflects the influence of an immediate work context, whereas the two cultural indices indicate the endorsement of work values at a higher societal level. Although previous studies show that context at different levels may affect the well-being of individuals independently, the extent to which such context can jointly participate in the individual process remains unknown. This dissertation aims to fill such gap.

Fourth, we contribute to cross-cultural research by examining the influence of cultural dimensions other than those identified by Hofstede (1988). Specifically, we propose and examine several cultural aspects, such as NGSC and PO. To the best of our knowledge, previous studies on the cross-cultural differences in work centrality and work motivation (Huang & Van de Vliert, 2003) mainly rely on value-based cultural dimensions, such as the cultural framework of Hofstede (2001); the two-dimensional managerial values of Smith, Dugan, and Trompenaars (1996); and the recent mapping of social axioms of Bond et al. (2004); however, such studies ignore the aspects of NGSC and PO, which focus on socialization and work, respectively.

## CHAPTER 2 LITERATURE REVIEW

This chapter reviews the literature on work centrality, work orientations, job independence, LS/Subjective Well-being, NGSC, PO, and JC to provide a broader foundation for the hypothesis development in Chapter 3.

### Work Centrality

Work centrality refers to the importance of work in the life of an individual (Paullay et al., 1994). People with high work centrality consider work as a central life interest (Dubin, 1956) and continue to work even if they are retired and have sufficient finances (Morse & Weiss, 1955; Warr, Cook, & Wall, 1979).

Work centrality is rooted in Weber's formulation of the Protestant work ethic (PWE). In his book, *The Protestant Ethic and the Spirit of Capitalism*, Weber employed the general ethics from the Protestant faith, which suggest that work is an end in itself and that people should avoid leisure activities to avoid sin, to explain the diligence of workers underlying the prosperity of the Western world during the industrial ages. Dubin (1956) borrowed the same concept but shifted the focus from work ethics to perceptions of work as a central life interest. Dubin (1956) provided the first insights into the importance of work in the life of an individual, thereby triggering many subsequent studies on this topic (e.g., Kanungo, 1982; Mannheim, 1975).



Mannheim et al. (e.g., Mannheim, 1975; Mannheim & Angel, 1986) developed the concept of work role centrality and conducted several studies in Israel to examine its antecedents and consequences. Work role identity primarily focuses on the cognitive and ego-identity aspects of work dedication. Given its conceptual linkages with the identification process, work role centrality is often combined with another popular concept, that is, work involvement. The MOW international project team (1987) developed another line of work centrality research and considered work centrality as a reflection of the attitudes of individuals toward the meaningfulness of work. They suggested that with a high work centrality, the corresponding work meaningfulness should also be high regardless of whether the underlying goals/motivations of individuals are extrinsic (i.e., gaining security and material rewards), intrinsic (i.e., expressing their independence), social (i.e., attaining public acclaim), or prestigious (i.e., engendering power and self-enhancement) (Ros, Schwartz, & Surkiss, 1999).

Operationally, previous studies mainly suggest two ways to capture the importance of work in the overall life of an individual. One way is to ask directly the respondents about the importance of work (the “absolute” measure of work centrality), whereas the other approach, the “relative” measure of work centrality, has been rarely used in the literature. The latter measure is operationalized by asking the respondents to rate each life domain

simultaneously. The ranking or relative scores of work importance are then used to reflect work centrality.

The term “work” in the work centrality construct refers to paid employment; therefore, work centrality differs from the other constructs that are anchored upon the current job of an individual (i.e., job involvement) (Paullay et al., 1994). Although work involvement differs from work centrality, some studies employ work centrality measures to capture work involvement (Diefendorff et al., 2002; Paullay et al., 1994). Therefore, the literature review includes all those studies that adopt the work centrality construct or those that use other constructs yet include measures of work centrality.

### ***Distinctiveness of Work Centrality***

Introduced in the 1980s and widely studied by Mannheim (1975; 1993), work centrality differs from some contemporary constructs, such as job involvement. Paullay et al. (1994) found that work centrality and job involvement are two distinct constructs; specifically, job involvement refers to the degree to which an individual is cognitively preoccupied with, engaged in, and concerned with his/her present job, whereas work centrality refers to the degree of importance of work or paid employment in the overall life of an individual. The socialization of an individual is a major antecedent of work centrality, whereas job involvement tends to be influenced by situational stimuli (Paullay et al., 1994).

Other scholars (e.g., Harpaz & Snir, 2003; Scott, Moore, & Miceli, 1997) have developed the workaholism construct on the basis of earlier studies on work centrality. These two constructs share a homology on the tendency of individuals to consider work as a central life interest. However, work centrality focuses on the attitudes of an individual about work, whereas workaholism focuses on the behavioral patterns (i.e., discretionary time spent in work activities and work beyond organizational requirements) and generalized thinking of individuals about work (Scott et al., 1997).

Although work centrality is correlated with work–life balance, a person that places much emphasis on work is assumed to have no work–life balance. However, this state of work–life balance does not follow objective criteria. Moreover, an individual who places much emphasis on work relative to his/her family may still subjectively think that s/he achieves work–life balance.

### ***Antecedents of Work Centrality***

Work centrality has a series of antecedents. First, work centrality is a function of demographic variables, including gender, age, education, and socioeconomic status (i.e., occupational status). Previous studies consistently demonstrate that males have a higher work centrality than females (Mannheim, 1993; Harpaz & Fu, 1997), and such finding echoes the argument of social role theory that males assume the role of career builders and providers for their families, whereas females assume the role of homemakers who look after their families.

Age has also been identified as a correlate of work centrality. On the one hand, given the time that individuals invest in building their careers and achieving financial stability, some scholars (e.g., Goldman, 1973) posit that middle-aged people exhibit the highest work centrality because younger individuals are still in their “choosing” and life expansion stage, whereas older individuals are already preparing for retirement. Kwon and Schafer (2012) confirmed such hypothesis by using Chinese samples from four waves of the World Value Survey (WVS). On the other hand, socioemotional selectivity theory posits that individuals have decreasing motivations in life expansion as they age. Specifically, older individuals place more emphasis on their work when their children are all grown up, whereas younger individuals remain in an exploratory life stage and are less likely to extract meaning and exert control from a single domain, such as work (Reker, 2000). Using samples from Japan and the U.S, Loscocco and Kalleberg (1988) found a positive correlation between age and work centrality in these two countries.

Given that years of education reflect the career interests as well as the time and skills investments of individuals, previous studies find that individuals with higher education place much emphasis on work because of their enhanced intrinsic motivation (or job competence) and commitment (Siegel & Ruh, 1973; Mannheim, Baruch, & Tal, 1997). However, other studies (e.g., Bal & Kooij, 2011) find a negative correlation between

education and work centrality, indicating that people with higher education may either be highly competent to finish their work or be conscious of the value of their other life domains.

Given the needs-satisfying function and contributions of work to the self-esteem of individuals, socioeconomic factors may also influence the work centrality of individuals.

Mannheim (1975) found that work centrality consistently increases with the occupational ranks of individuals, such as from manual (i.e., construction and production workers) or lower white-collar occupational groups (i.e., services) to professionals, managers, and administrative workers. Mannheim (1975) also suggested that individuals from low income groups highly depend on the provisional functions of work and thus place more emphasis on work in comparison with individuals from high income groups.

Second, personal characteristics, including personalities (i.e., conscientiousness and needs for achievement) and generalized beliefs (i.e., PWE), are also correlated with work centrality. In his meta-analysis, Kostek (2012) found that among the five generalized personalities, conscientiousness is the only one related to work centrality because of the fact that individuals with high conscientiousness could effectively apply their talents and potentials in the workplace, thereby having a higher tendency to search for the fulfillment of such talents in the work domain. Goldman (1973) examined a sample of 489 middle managers and specialists from seven American industries and found that upward-anchored (similar to growth needs strength) managers and specialists are more work oriented than

ambivalently or downwardly anchored managers and specialists. Hirschfeld and Field (2000) found that PWE and leisure ethic are positively and negatively correlated with work centrality, respectively.

Third, work centrality reflects not only the life attitudes of individuals toward work but also the nature of their attachment to their job. Therefore, work centrality tends to be influenced by several factors in the workplace, such as job rewards, job satisfaction, task autonomy, and pay system characteristics. Consistent with traditional motivation theory, which posits that individuals seek satisfying experiences and avoid dissatisfying experiences, previous studies show that job rewards and job satisfaction can enhance work centrality because these attributes indicate the positive feedback of work experiences, thereby promoting the willingness of individuals to invest their time and efforts in work (Mannheim, 1975; 1993). Work centrality is also positively correlated with task autonomy and managerial orientations in granting autonomy and sharing information because such immediate contextual factors can enhance the ability of workers to control their own performance and determine the amount of premiums that they can receive in the workplace (Mannheim & Angel, 1986; Mannheim & Dubin, 1986). By examining the influence of pay system characteristics, Mannheim and Angel (1986) found that individuals working under an individual incentive system show the highest work centrality, followed by those individuals with fixed wages and those working under group incentive conditions. They also showed that

technological organization (i.e., production organization and task independence) could more greatly affect work centrality under incentive systems than under fixed wage conditions. In sum, how and how much individuals are paid can both influence their work investments.

Fourth, apart from these antecedents at the individual level, the influences from the national level also perform important functions in socialization, enforcement, and incentives. For instance, Kwon and Schafer (2012) observed a downward trend of work centrality in China from the 1990s to the 2000s, possibly because of the economic growth during the period. They also found salient age group differences in terms of work centrality, with the “revolutionary socialism generation” having a significantly higher work centrality than the “post-80s generation.” Parboteeah and Cullen (2003) identified two aspects of national contexts, namely, cultural systems (i.e., uncertainty avoidance and masculinity) and social institutions (i.e., educational accessibility, union strength, socialist government system, and social inequality), that could decrease the importance of work relative to other life interests.

In sum, most of the previous explorations on the antecedents of work centrality focus on demographic variables and individual characteristics (i.e., personalities and individual generalized beliefs), whereas only a few studies examine specific work orientations. Moreover, most of these studies are conducted in Western industrial developed countries (i.e., Israel, the U.S., and the Netherlands), whereas only a few investigations examine the uniqueness of such relationships in different national contexts (some exceptions

include Harpaz & Fu, 1997). Therefore, this dissertation on the specific work orientations of individuals in a cross-cultural context contributes meaningful and novel results to the extant literature.

### ***Consequences of Work Centrality***

Most studies on work centrality focus on its antecedents, whereas only a few examine its potential consequences on performance. One stream of literature examines how work centrality solicits the work attitudes and behaviors of individuals. According to this stream, given that work-centered individuals invest a large amount of inputs to their work, they can achieve a higher performance and become more actively involved in their career planning. Specifically, Mannheim et al. (1997) found that wages, organizational commitment, and career planning are positively correlated with work centrality. Similarly, Aryee and Luk (1996) examined a sample of dual-earner couples from Hong Kong and found that work centrality could predict career satisfaction. Bal and Kooij (2011) observed significant relationships between work centrality and three types of job attitudes (i.e., work engagement, job satisfaction, and turnover intentions) by reducing transactional psychological contracts and increasing relational psychological contracts.

Similar to the work–life balance literature, the second stream examines how work centrality influences the dedication of individuals to other life domains, such as family. By defining work centrality as the relative importance of work (compared with family), Carr,



Boyar, and Gregory (2008) posited that those individuals who value their work over their families tend to attribute their work interfering with family (WIF) problem to their low valuation of their family. As hypothesized, they found that work centrality attenuates the relationship between WIF and work-related attitudes (i.e., job satisfaction and organizational commitment). Carlson and Kacmar (2000) found a similar pattern in which those individuals who value their work could often experience family interference with work and develop a lower family satisfaction.

The third stream examines how work centrality can influence the generalized well-being of individuals. Although the meta-analysis of Kostek (2012) reveals a positive relationship between work centrality and well-being, such result is inconclusive because Kostek (2012) mixed up those studies that employed work involvement or work-role identification with work centrality. Only one research indirectly discusses this focal question. Specifically, Carlson and Karmar (2000) found a negative yet insignificant correlation between “relative” work centrality (i.e., the marks allocated to the work domain from a total of 100 marks) and life satisfaction, which is an aspect of well-being; they also found an insignificant yet positive relationship between “absolute” work importance ratings, as another proxy of work centrality, and life satisfaction.

The literature reveals several interesting findings about the consequences of work centrality. First, although work centrality is hypothesized to predict the work attitudes, work

behaviors, work efforts, work involvement, career planning, and organizational commitment of individuals, this factor does not directly facilitate job performance, as described in the works of Diefendorff et al. (2002) and Mannheim et al. (1997); such finding suggests that the importance of work in the life of individuals is not a necessary precondition for individuals to achieve a better work performance. By contrast, overemphasizing work can damage the work performance, other life domains, and even the overall well-being of an individual because this goal-striving process depletes the resources of individuals and drives them to neglect the important issues in their other life domains. Second, given that previous studies hold different conceptions of work centrality, the relationship between work centrality and well-being may be contingent upon specific definitions of work centrality. Specifically, if we consider work centrality as equivalent to the constructs of work involvement or work-role identification (e.g., Mannheim, 1975; 1993; Kostek, 2012), we can expect positive results because in this definition, work centrality actually captures the intrinsic motivation aspect of work. However, different results may be obtained if we define work centrality as the importance that an individual places on his/her work relative to his/her other life domains (i.e., family and leisure). Third, given that various nations may endorse the value of work differently, the relationship between work centrality and psychological variables, such as well-being, may also differ across these nations. Therefore, further research must be conducted to investigate such difference. By combining these three points, we need to investigate the relationship

between work centrality and well-being using a “relative” measure (i.e., by comparing work centrality with other important life domains) of work centrality to uncover the actual roles of work in the overall life of an individual.

### ***Relative Centrality of Work***

After introducing work centrality, its histories, and developments, we then introduce RCW as our unique construct.

As mentioned earlier, RCW refers to the relative importance that people place on work relative to other major life domains, including friends, leisure, politics, religion, and family. From the social investment perspective, RCW is a psychological manifestation of the social investment outcomes of the introjections into the working arena along with associated cognitive and emotional commitments. The term “work” in this construct refers to paid employment in which individuals obtain monetary or other forms of compensation from transforming their human capital (i.e., intellectual and human labor) into fulfilling particular sets of tasks and responsibilities (Edwards & Rothbard, 2000).

We consider work centrality as a relative proportion in which the importance of work is assessed amid several competing domains of individual activity because the investment of an individual in any life domain is not absolute. However, life is a trade-off that requires individuals to deploy their limited time, energy, personal resources, and competencies in those life domains that best enable them to realize their personal goal

profiles. Consequently, a relative assessment of work centrality can better reflect this belief about the thoughts and efforts of individuals toward their life balance.

This conceptualization has precedents. In the early 1950s, Dubin (1956) focused on the relative importance of the workplace among the “central life interests” of individuals and developed a 40-item measurement scale to describe the embeddedness of work within other life domains. This fit of work into other life domains echoes Mannheim’s (1975) definition of work centrality: "... the relative dominance of work-related contents in the individuals' mental processes, as reflected in responses to questions concerning the degree of concern, knowledge, and interest invested in the work role relative to other activities and in the individuals' emphasis on work-related sub-identities” (p. 81).

Before this study, England and Misumi (1986) and the MOW project (1987) were the only studies to use a measure of relative work importance across national cultures to determine its predictors. On the basis of the premises that the experiences of individuals are segmented into different sub-spheres and that people have different preferences for particular life spheres, England and Misumi (1986) and the MOW project (1987) treated commitment or involvement at work as a selective process and employed two ways to capture this construct. Specifically, they assigned 100 points to five life domains (i.e., leisure, community, work, religion, and family) in terms of their importance and used either the absolute scores

allocated to work or the ordinal position of work among these domains to reflect work involvement.

However, those previous studies based on the relative preference conceptualization (e.g., MOW, 1987) only compare work centrality levels across national, occupational, age, and gender groups. In terms of nation, Japan shows the highest work centrality, followed by Yugoslavia, Israel, the U.S., Belgium, the Netherlands, Germany, and Britain. In terms of occupation, chemical engineers and self-employed individuals demonstrate the highest work centrality, followed by teachers, textile workers, tool and dye makers, unemployed individuals, white-collar workers, retirees, students, and temporary workers. Senior and male employees have higher work centrality than young and female employees, respectively. Carlson and Karmar (2000) found a negative yet insignificant relationship between work centrality and subjective well-being using a sample of U.S. respondents. However, no study has explored how other factors can influence the relative work preference of individuals and how RCW influences the subjective well-being of individuals from different national contexts. Such gap in the literature thus provides an impetus for this research.

### **“Work as Good” Orientation**

We develop the WAG construct on the basis of the World Value Survey questionnaire items, we thus review the attitudes or orientations of individuals regarding the goodness of work.

As the most relevant construct to WAG, Protestant Work Ethics (PWE) was introduced by Weber to explain the prosperity of modern capitalism. The emergence of modern Western capitalism can be attributed to metaphysical beliefs instead of economic conditions (Furnham, 1984). Although nominally PWE implies religious ethics regarding work, this concept actually dictates a much broader array of behavioral patterns, life goals, and values, which include but are not limited to asceticism, hard work, postponement of gratification, thrift, and frugality. Such complexity can be reflected in the diverse contents that are encompassed by previous PWE scales. In a content analysis of seven recognized PWE scales, Furnham (1990) identified seven coding categories to depict PWE: work as an end to itself, hard work and success, money/efficacy, leisure, spirituality/religiousness, morals, and independence/self-reliance.

Previous studies (e.g., Blood, 1969; Leong, Huang, & Mak, 2014) show that PWE can facilitate a series of positive work outcomes. For instance, Aldag and Brief (1975) found that PWE is positively related to internal work motivation, growth satisfaction, and higher-order need strength. Kidron (1978) demonstrated that individuals with high PWE tend to increase their moral and calculative commitment to their work environment. Williams and Sandler (1995) considered PWE as a significant predictor of organizational commitment. With regard to the effects of PWE to working behaviors, Merrens and Garrett (1975) found that individuals with high PWE spend more time in attending to boring and repetitive tasks in

an experimental condition, whereas Greenberg (1977) found a positive correlation between PWE and job performance.

Although most of these studies are conducted in the Western, Christian-based context, PWE is a culturally universal construct (Furnham et al., 1993) that emerges in Confucian countries, such as Singapore (Williams & Sandler, 1995), and in Islamic countries, such as Turkey (Arslan, 2000). Despite the generalizability of PWE scores and its accompanying effects (Furnham et al., 1993), Furnham (1990) summarized four major cross-cultural differences on the levels of PWE scores and revealed that PWE beliefs tend to be lower (1) in those countries with more liberal, less conservative, or authoritarian cultures; and (2) in highly scientific countries and those countries with larger bureaucracies. By contrast, those countries that (3) emphasize power distance, uncertain avoidance, and individualism; or (4) with large inequalities between the rich and the poor have considerably high PWE scores.

We define WAG as the extent to which individuals believe that their work benefits their personal development and societal progress. Although both PWE and WAG pertain to the work orientations of individuals, they may share similar functions (i.e., how they solicit the attitudes and performance of individuals toward work). However, PWE has a much broader array of contents that extend beyond work to include other life domains (i.e., leisure). Cherrington (1980) offered a proxy of PWE (i.e., moral importance of work or MIW) that is

restrained within the working arena but differs from WAG; MIW is aimed at establishing a relationship between work and the morally better self of an individual, whereas WAG only pertains to the necessity of work to our self-development and societal progress and does not involve ethical “goodness.” Consequently, by using WAG, we identify this construct’s similarities to and distinctness from the other extant, well-established constructs in the literature, such as PWE.

### **Job Complexity**

JC refers to the extent of the complexity or difficulty of the tasks in a job.

Compared with simpler jobs, complex jobs are usually inconsistent, multifaceted, challenging, and cognitively demanding (Morgeson & Humphrey, 2006). Highly complex jobs not only require a wider variety and higher levels of skills and capabilities but also demand for a greater resilience and collaboration among coworkers and teammates (Man & Lam, 2003; Tierney & Farmer, 2002). Consequently, different elements (i.e., work goals, plans, and backups) must be considered when performing such tasks, and many decisions must be made via an intricate brainstorming process among employees (Valcour, 2007).

Most studies investigate two types of job-related complexity (Schaubroeck, Ganster, & Kemmerer, 1994). The first type is derived from the job design literature; it is usually equated to the enrichment construct of Hackman and Oldham (1975) and measured using their Job Diagnostic Survey (JDS, which covers task significance, task identity, skill variety,



autonomy, and feedback). The second type is developed from the occupational classifications and analyses in the Dictionary of Occupational Titles (DOT), which aims to capture highly objective job requirements (i.e., education, training, and functions). Despite similarly reflecting the complexity of tasks and influencing the physical health of individuals (e.g., Schaubroeck et al., 1994), these two types of job-related complexity also have some notable distinctions. First, the former “psychological” complexity depicts the subjective understandings and feelings of individuals about the work activities in a particular job, whereas the latter describes the objective personnel requirements of jobs (Gerhart, 1988). Second, the former is usually examined at the individual level through the ratings of focal employees (e.g., Van Der Vegt & Van De Vliert, 2000), whereas the latter is often examined at the occupational level through independent assessments of job descriptions and on-site job observations (e.g., Tierney & Farmer, 2002). Third, the former is often described as an intrinsically interesting and challenging job (Van Der Vegt & Van De Vliert, 2000) that can stimulate the affective and motivational systems of workers and attach personal meanings and manipulations to their work (Gerhart, 1988), whereas the latter focuses on the mental and cognitive requirements that are associated with tasks, which are manifested as task variety and the diversity of required skills and knowledge to perform the job well. Fourth, previous studies merely document small- to medium-sized correlations between these two types (i.e.,  $r=0.23$  in Judge, Bono, & Locke, 2000;  $r=0.15$  in Schaubroeck et al., 1994; and  $r=0.40$  in

Xie & Johns, 1995) and thus indicate that these two types may differ from each other.

Therefore, the results that are based on these two types must be discussed separately.

We only focus on the option that JC captures the mental challenges that are associated with the tasks in work teams and the variety in their work. Therefore, we limit our literature review to the latter form of JC. In other words, we only cover those studies that utilize DOT scores or other highly objective scales of job characteristics (i.e., JC instrument) apart from the JDS and job characteristic inventory. This approach is consistent with the view that defines JC as the extent to which a job requires task variety, skill diversity, and information processing complication from individuals. Furthermore, DOT scores, which are widely used in the literature (e.g., Hunter, Schmidt, & Judiesch, 1990; Oldham, Kulik, & Stepina, 1991), anchor JC at the occupational level by assuming that different jobs within a specific occupation exhibit the same level of complexity (Judge et al., 2000). Consequently, those previous studies that adopt these scores tend to employ highly diverse samples and compare JCs between different occupations. By contrast, other scholars tend to think that JC rests upon the detailed work contents of focal individuals; therefore, even if these individuals have the same occupations and work teams, they may have different job contents, functions, and levels of JC. Other scales have been developed accordingly to test how JC differs between work teams (i.e., Dean & Snell, 1991) or individuals (i.e., Morgeson & Humphrey,

2006). We then review these different usages of JC altogether and determine that JC studies are conducted in three directions.

First, complexity, which is framed as a proxy of job scope or demand, constitutes a central concept in the work stress literature. Scholars aim to investigate how JC can influence the physical health of individuals. For instance, Schaubroeck et al. conducted a series of studies on this direction. In their seven-year study of 110 full-time firemen and policemen in a mid-west city in the U.S., Schaubroeck et al. (1994) found positive and negative correlations between JC and cardiovascular disorder (after seven years) when the focal employee exhibits a high and low Type A personality (the tendency to be impatient, hurried, competitive, and hostile), respectively. Schaubroeck and Merritt (1997) collected data from a sample of 110 full-time health professionals and found that at higher levels of self-efficacy, JC (as a proxy of perceived job demand) shows a highly positive relationship with the systolic and diastolic blood pressures among employees with low job control; by contrast, at lower levels of self-efficacy, JC shows a highly positive relationship with blood pressure among employees with high job control. Therefore, job self-efficacy must be improved along with job control to enable employees to deal with the potential damaging effects of high job demand. In addition to the linear relationship between JC and health, Xie and Johns (1995) found a U-curve relationship between JC and emotional exhaustion and posited that having

some levels of JC could benefit employees but that JC may negatively affect employees when its level exceeds some cut off value.

Second, previous studies investigate how JC may influence individuals as well as how the abilities or characteristics of individuals can influence their complex job selections. For instance, Judge et al. (2000) found a positive correlation between the core self-evaluations of individuals (including their self-esteem, self-efficacy, neuroticism, and locus of control) and JC. Given that people with positive self-evaluations tend to believe their capacities to cope with difficulties and their control over the external environment, they may actively seek for occupations with high JC. Wilk and Sackett (1996) utilized two longitudinal samples and consistently found that those individuals whose abilities exceed the complexity of their extant jobs could move up to highly complex jobs during the early stages of their careers. By contrast, previous studies also reveal that complex jobs can influence the motivations and behaviors of individuals at work. According to Tierney and Farmer (2002), JC contributes to the creative self-efficacy of individuals because complex jobs often require flexibility and experimentation and provide employees with the opportunity to use advanced cognitive faculties and processes. Avolio and Waldman (1990) found that individuals with highly complex jobs tend to show a high degree of cognitive ability (i.e., cognitive test performance). JC can also improve group performance by improving group cohesiveness

(Man & Lam, 2003) because employees usually have a strong desire to work with others when encountering complex jobs.

Third, JC has also been highlighted as a valuable contextual moderator that interacts with other environmental or personal factors. Zacher and Frese (2011) found that older employees in high-complexity jobs are highly capable of maintaining their focus on available opportunities, a cognitive–motivational concept that depicts how many new goals, options, and possibilities employees believe that they can achieve in their future careers. They suggested that complex jobs could provide older employees with numerous possibilities to capitalize on age-related gains, such as increased work-related experience, and avoid age-related losses, such as physical strength. Sparrow and Davies (1988) found that although the performance of workers generally decrease along with their increasing age, the performance of those workers in high-complex jobs is saliently higher than that of their counterparts with low JC. Other evidence shows that intellectual demands and intellectually stimulating activities that are involved in complex jobs may help aged workers retain their cognitive abilities. Highly complex jobs can also help employees improve their focus on their tasks, especially when they are working under unshielded physical working environments (i.e., close to other employees, dense office rooms, and fewer enclosures) and are not exempted from environmental intrusions (Oldham et al., 1991). Using the ability–demand fit model, some scholars find that JC functioning as demand may interact with individual or

team abilities to influence performance outcomes. Combined with other studies, Hunter et al. (1990) found that output variability increases along with the information processing demands (i.e., complexity) of a given job, and such variability increases by 19%, 32%, and 48% for non-sales jobs with low, medium, and high complexities, respectively; this finding indicates that high-performing employees in occupations with high complexity are more effective than high-performing employees in occupations with low complexity. Shalley, Gilson, and Blum (2009) found that JC could further moderate the interactive term of an individual's growth need strength and contextual support; those individuals with subordinates high on growth need strength are more creative when they work in a supportive context and when working highly complex jobs.

All of these findings depict JC as a “mixed blessing.” On the one hand, JC is considered a job demand or work stressor that exhibits powerful relationships with strain outcomes (Xie & Jones, 1995), as well as a strong predictor of physical health outcomes. On the other hand, under certain conditions, JC can protect people from external interference and improve the execution of their talents and activation of their motivations. Given that we aim to demonstrate that the person (i.e., RCW)–culture (i.e., PO) fit of an individual can be better activated under high JC conditions, we emphasize the potential benefits of JC similar to the abovementioned third stream of JC research.

We posit that numerous aspects of a complex job may be conducive to those individuals who place more emphasis on work than on other life domains. Complex jobs are usually humanized and include highly creative and cognitive aspects of work. Consequently, these jobs may make work investment decisions worthwhile by providing individuals with numerous opportunities for self-fulfillment and self-demonstration.

### **National Goals for the Socialization of Children**

Instead of traditionally using either cultural values or social institutions to represent the national level influence, Bond and Lun (2014) creatively conceptualized NGSC to reflect such influence. Given that nations should also survive or disappear as humans do, Bond and Lun (2014) suggested that each nation should set its own priorities for citizens to become socialized, contribute to human capital, preserve the historical legacy, and address extant challenges. By analyzing a sample of 55 nations from the fifth wave of the WVS, they created a two-dimensional orthogonal NGSC construct that includes civility versus practicality and self-directedness versus others-directedness. The former dimension emphasizes fostering the tolerance and benevolence of citizens toward others versus fostering their instrumentality and materialism, whereas the latter emphasizes fostering the self-determination and independence of citizens versus fostering their obedience and religious faith. Given that these two contrasting extremes in each dimension represent two ends of a continuum, those nations high on one side of a continuum also represent their low on the

other side. To prevent confusion, we label these two dimensions as self-directedness and civility, respectively.

Given that the directions of child nurturing can reflect the resource constraints, ecological demands, and historical–religious legacy of countries, these nations may have differing attribute profiles. For instance, influenced by Greek oceanic conditions and Socratic philosophy, children in Western countries are taught the importance of independence. By contrast, Eastern nations influenced by Chinese continental conditions and Confucian philosophy place relational harmony as the most important. Despite these differences, the ways that these competencies are transmitted to the next generation are largely homogenous either through the institutional structures (i.e., schools and law courts) that constitute society or through the national goals or values that are endorsed by the people of a nation.

The two dimensions of the NGSC enjoy several merits that are not present in other extant cultural indices. First, given that the consciousness of individuals regarding their own values remains widely debated, asking these individuals to report which values they will use to nurture the next generation may avoid this problem, thereby capturing their actual values and beliefs. Second, the cultural indices are often distinct from the influences from social institutions; therefore, previous scholars have avoided confounding these two dimensions in developing their hypotheses. However, given that the NGSC can be transmitted simultaneously by cultural values and social institutional guarantees, these dimensions can be



simultaneously included in the arguments surrounding the NGSC. Third, the two dimensions of the NSGC differ from many similar, extant cultural theories (i.e., traditional versus secular–rational values and survival versus self-expression values, Inglehart, 1997) in the sense that culturally shaped forces turn these value contrasts into consequents of these socialization emphases (Bond & Lun, 2014). Consequently, by introducing this new construct of child socialization goals, the questions of why and how psychological outcomes, such as value endorsement, emerge from national cultures can be thoroughly understood (Jing & Bond, 2015).

Bond et al. conducted a series of research on the NGSC. For instance, in their seminal work on the NGSC, Bond and Lun (2014) tested the mediating roles of the two dimensions of the NGSC between Human Development Index and national-level well-being and found that the NSGC is responsive to the societal developmental conditions of a nation and that the emergence of such construct could successively shape the national psychological outcomes of the people. In their study on the production of an individual's well-being, Lun and Bond (in press) found that people in self-directed and civil nations show high levels of well-being. In addition, these two cultural emphases regulate the influences of the financial satisfaction or trust of in-group members on well-being in such a way that under less self-directed or civil cultures, the positive relationship between the financial satisfaction and well-being of individuals is strengthened, whereas the relationship between the trust of

in-group members and well-being is weakened. Jing and Bond (2015) investigated the sources of non-specific trusts and the cultural complexities underlying this dynamic; they found that the trust of individuals in people they know personally and in the out-group tends to be generalized to their non-specific trust if they are living in cultures with self-directedness or civility.

These studies validate the two-dimensional NGSC as a national-level influence. Given their unique influences on the personalities, values, and life options of individuals, these dimensions were employed in the former part of our research model.

### **Performance Orientation**

To investigate the influence of culture on leadership and organizations, House et al. (House, Hanges, Javidan, Dorfman, & Gupta, 2004) developed a novel cultural dimension regarding work, namely, PO, which indicates the extent to which a society facilitates and rewards their people for meeting higher working standards or achieving higher working goals (Javidan, 2004).

According to House et al. (2004), PO dates back to Weber's assertion of "good work" as a way of human salvation. Two Christian theologians, Martin Luther and John Calvin, also introduced the meaningfulness of our daily work into the Protestant doctrine and proclaimed that each aspect of our working life could serve as mediums to glorify God. Based on these studies, a series of protestant work values, including hard work, knowledge,

and challenge, have been specified and collected by scholars and have been used to explain national wealth growth and the improved work attitudes and behavior of individuals (Furnham, 1984; 1990; Minkov & Blagoev, 2009).

The most relevant contributions in psychology and cross-cultural research are McClelland's (1961) concept of need for achievement and Hofstede's (2001) clarification of the masculinity/femininity dimension, with the latter considering work as a tool that satisfies the psychological needs of individuals or society's collective programming of work importance. On the basis of these contributions, House et al. (2004) developed a PO dimension by identifying variations in how countries consider job-related accomplishment as an important goal. Specifically, they posited that in contrast to societies that place less emphasis on work performance, performance-oriented societies tend to value those individuals and groups that could produce results and accomplish assignments to a larger extent. Therefore, these societies tend to exhibit these attributes by valuing their tasks, rewarding people for their performance, and emphasizing training and development.

Given that this new cultural dimension favorably reflects the working cultures of a society, previous studies employ PO in their analyses at different levels. At the national level, several studies link PO to other national indices (e.g., Bond et al., 2004). For instance, although PO can promote economic growth (Minkov & Blagoev, 2009) and the participation of women in political leadership (Bullough, Kroeck, Newburry, Kundu, & Lowe, 2012), this

construct can be detrimental to the life expectancy of individuals (Javidan, 2004). By employing PO as an antecedent of the behaviors and attitudes of individuals, Autio, Pathak, and Wennberg (2013) found that such construct is positively correlated with the entrepreneurial entry behaviors of individuals, thereby suggesting that those individuals living under a performance-oriented culture tend to perceive the legitimacy of entrepreneurial endeavors and consider themselves successful in such actions. PO may also function as a contextual variable that regulates the individual process. Gentry, Weber, and Sadri (2008) found that PO could strengthen the positive relationship between the mentoring behaviors and managerial performance of managers as rated by their bosses. Sturman, Shao, and Katz (2012) found that poor performers are highly likely to quit voluntarily in a high-performance-oriented culture.

### **Life Satisfaction/Subjective Well-being**

As a measure of the extent to which an individual lives a happy and satisfied life, LS captures the feelings and beliefs of individuals regarding their overall life quality and is thereby considered as the foundation of modern hedonic psychology. Previous studies find that LS/ is predictive of many beneficial outcomes to focal individuals; such outcomes include future health and longevity (Lyubomirsky, King, & Diener, 2005), productivity and higher income (Oishi, 2012; Diener, Nickerson, Lucas, & Sandvik, 2002), and prosocial

behaviors, which include donations and social acceptance (Priller & Schupp, 2011; Shin et al., 2011).

As subjective well-being (SWB) is a broader construct that includes emotional attitudes (i.e., positive/negative affect), satisfaction at a specific domain (i.e., work/family satisfaction), and LS (Diener, Suh, Lucas, & Smith, 1999), and prior research has often mingled LS with SWB in its usages, we base our review on the research that includes these two.

Personality is a major determinant of LS/SWB, and previous studies find a moderate to large correlation between these two. The temperament theories of personality (e.g., Headey & Wearing, 1992) suggest that individuals with certain personalities tend to experience life events with certain attitudes and outcomes; therefore, personalities can decide the well-beings of individuals at certain levels. Among these personalities, openness to experience and neuroticism (or positive and negative affects) are the two most relevant antecedents of LS/SWB. As a newly developed personality, core self-evaluation also facilitates the LS/SWB of individuals. Judge et al. argued that if individuals think highly of themselves (i.e., high on core self-evaluation), they tend to perceive the world favorably, thereby increasing their life satisfaction. By employing this construct, Judge, Locke, Durham, and Kluger (1998) found that core self-evaluation could increase life satisfaction via the consequential mediating roles of perceptions of work characteristics and job satisfaction.

Judge, Bono, Erez, and Locke (2005) asserted that individuals with positive self-regard tend to pursue goals for intrinsic and identified reasons; they also found that goal self-concordance could mediate the relationship between core self-evaluation and life satisfaction.

The need satisfaction of individuals is also fundamental to their LS/SWB. Using self-determination theory, Deci, Connell, and Ryan (1989) found that the satisfaction of three intrinsic needs (i.e., need for autonomy, competence, and relatedness) exerts unique additive effects on the psychological well-being of individuals. Furthering this line of research, Sheldon and Niemiec (2006) found that a highly balanced satisfaction of these three needs, instead of the variability of need satisfaction, could engender the greater well-being of individuals. These higher-order needs for autonomy and intrinsic motivation improve the overall life evaluation of individuals; in addition, Maslow's needs gratification theory posits that the satisfaction of basic human needs can influence the LS/SWB of individuals. Other studies (e.g., Oishi, Diener, Lucas, & Suh, 1999) also identify the financial and self-esteem satisfaction of individuals as predictors of their generalized life satisfaction. As indicators that satisfy individuals' needs for achievement, satisfaction in a specific life domain (i.e., family/work satisfaction) and life satisfaction are found to be correlated. For instance, Judge and Watanabe (1993) found that job satisfaction is positively correlated with life satisfaction, whereas Carlson and Kacmar (2000) found that the job and family satisfaction of individuals could increase their life satisfaction.

Social support, love, and trust, which are embedded within the social relationships among individuals, constitute a third major source of their psychological well-being. Merz and Huxhold (2010) found that emotional support from kinship and instrumental support from non-kinship are positively correlated with the well-being of the elderly in Germany. On the basis of a meta-analysis of 92 studies, Amato and Keith (1991) concluded that children living in single-parent families reported much lower LS/SWB scores than their peers living in intact families. Such positive influence of social relationships on the LS/SWB of individuals is persuasive not only for individuals at different life stages but also for working populations in organizational settings. Thompson and Prottas (2006) found that organizational family support (from supervisors, coworkers, and culture) could reduce the stress and increase the life satisfaction of individuals. The literature on the effects of social relationships on LS/SWB is largely based on two mechanisms: the first mechanism focuses on the psychological or material resources that may result from such social relationships, and the second mechanism emphasizes how social support enhances the feelings of control of individuals and how the predictability of their future affects their well-being.

Given that individuals are born to seek control over their environment (Greenberger & Strasser, 1986), theories of depression and stress emphasize loss of control as the major reason why individuals experience greater physical and psychological symptoms, negative attitudes, and less well-being. Consequently, individual control, both as a perception or as an

individual belief, plays an important role in the theories of well-being. Subsequent analyses from a wide spectrum of fields (e.g., participative management, Spector, 1986; workplace control, Ganster & Fusilier, 1989) also verify that the managerial practices that can increase the control of employees at work can also improve their well-being. In their studies of the linkage between locus of control and LS/SWB in 24 national contexts, Spector et al. (2002) found that such positive linkage almost remains constant in all sampled areas and that individualism/collectivism, as the national cultural index, does not play any moderating role.

Unlike the extant literature that reviews a much larger volume of antecedents of LS/SWB, the above review only summarizes some of these antecedents along four major branches, namely, personality, needs satisfaction, social relationships, and mastery and control, because these branches represent the four most potent collections of LS/SWB antecedents at the individual level (Diener, Oishi, & Lucas, 2003). Although we do not assess cultural influence in the above review, the roles of culture have been widely examined, and corresponding theories and frameworks have been established. For instance, Oishi et al. (1999) found that satisfaction with esteem needs (i.e., the self and freedom) is more strongly correlated with life satisfaction in individualist nations than in collectivist nations. Suh, Diener, and Updegraff (2008) found that social acceptance more greatly contributes to the life satisfaction of Asian Americans who are nurtured in a relationship-oriented environment than to the life satisfaction of White Americans who are nurtured to become independent.



However, the rationale that underlies this line of research includes either the “person–culture fit model” or the “value as a moderator model,” both of which emphasize how individuals “feeling right” may solicit their positive emotions and well-being (e.g., Oishi et al., 1999).

Using LS as the outcome, we examine how RCW influences LS and how the cultural influence—PO and national RCW—is moderated along with JC.

## **CHAPTER 3 THEORY AND HYPOTHESES**

### **Relative Centrality of Work**

RCW refers to the importance of work for individuals relative to (or in contrast with) their other life domains, such as family, friends, leisure, religion, and politics. Given that this relative weighting of work reflects the centeredness of work in the overall lives of individuals, we consider RCW as the generalized life goals/orientations of individuals.

Therefore, we posit that individuals with high RCW prefer to embrace a work-oriented life, whereas individuals with low RCW tend to marginalize their working roles and treat non-work domains as their central life interests.

By framing RCW as the life goals or orientations of individuals, this work captures the work emphasis/importance of individuals in a different way than many extant, work-related constructs that emphasize either the “absolute” work importance (i.e., work centrality and PWE) or working experience of individuals (i.e., intrinsic motivation and calling). These constructs investigate the attitudes and motivations of individuals about their work, whereas we employ an integrated lens to investigate the importance of work in the overall life of individuals.

This differentiated work-oriented life goal, as reflected in the unique importance allocations of individuals, can be influenced by many factors. Specifically, RCW can be

influenced by current life stages (i.e., age, Loscocco & Kalleberg, 1988), assigned social roles (i.e., gender, Harpaz & Fu, 1997), and prior job training investments of individuals (i.e., education, Bal & Kooij, 2011). More broadly, the extant socio-economic status of individuals (i.e., household income, Mannheim, 1975), their national cultures and institutions (i.e., uncertainty avoidance, Parboteeah & Cullen, 2003), and the immediate stimuli they receive from work (i.e., pay system characteristics, Mannheim & Dubin, 1986) may also shape the relative weighting of work in individuals' life spaces. The consequences of such work emphasis is often demonstrated to be beneficial in the work arena; those individuals with high work centrality enjoy a higher level of job satisfaction, achieve better work results, and are willing to continue working even after their retirement (for a review, see Kostek, 2012).

Continuing with this line of research, we identify an additional antecedent of RCW (i.e., WAG) and one comprehensive criterion (i.e., LS) to assess our status as living beings (Diener et al., 1999). Accordingly, we hypothesize this formative process and the consequential effect of RCW.

### **Predicting Relative Centrality of Work**

We employ a social investment lens to reveal the formative process of RCW. Through this lens, we posit that social investment formation is a social selection process in which individuals choose to invest in or commit to specific life domains on the basis of either relational and non-cognitive reasons (i.e., personalities and subjective orientations) or rational

calculations (Bielby, 1992; Roberts & Wood, 2006). Previous studies use individual differences, such as personality, to determine how people invest in their different life domains. For instance, Lodi-Smith and Roberts (2007) found that individuals with high agreeableness, conscientiousness, and emotional stability invest more in their work, family, and religion. Roberts, Caspi, and Moffitt (2003) found that people with positive traits tend to dedicate their lives to and enjoy their work, whereas those with negative traits tend to withdraw from their work and experience negative working experiences.

On the basis of extant research, we consider the RCW of individuals as their relative investment in or commitment to the working role. We then propose that this work-oriented life goal is subject to individuals' specific attitudes about work, namely, WAG (Bond, 2013).

WAG is a constellation of attitudes that consider work as beneficial to the personal development of individuals and their societal progress. Following the logics from the social investment lens, we posit that an individual places either a higher or a lower importance on work (relative to other life domains) as long as work is deemed positive from their subjective perceptions or provides the most economic way to meet their personal needs and values.

Specifically, WAG increases the importance of work relative to other life domains because individuals perceive work as good and positive work orientations can improve their working attitudes and work engagement. WAG can also trigger the rational choice mechanisms of

individuals in such a way that this life goal emphasizes that work can improve the personal development of individuals and generalize the utility of work to their overall life. Therefore, individuals tend to increase the weights of work in their life profiles because every other life domain (i.e., family and leisure) can benefit from such work investments. This process is akin to the expectancy theory of Vroom (1964), which posits that the motivational force of individuals for a certain option (over other choices) is the product of their expectancy (the likelihood of attaining specific goals), instrumentality about the rewards from goal fulfillment, and valence (i.e., value placed on rewards). Given that WAG encompasses a positive valence toward work and instrumentality from work fulfillment, an individual with high WAG improves his/her emphasis on work while downplaying his/her other major life domains. On the basis of the above rationales, we posit the following:

H1: *WAG is positively correlated with RCW.*

### **Moderating Roles of National Goals for the Socialization of Children**

As described in H1, individuals with high WAG are motivated to place a relatively higher emphasis on work than on their other life domains. Another emergent issue is whether individuals with high WAG perform such action universally across all cultural contexts. Given that hard work is deemed not only as a necessity but also as a moral pursuit in some contexts, we posit that under such contexts, positive work attitudes (i.e., WAG) exert a

relatively strong effect on RCW if the national socialization goals are congruent with the personal socialized work attitudes of individuals.

National socialization goals depict the qualities or national priorities that extant citizens use to socialize their next generations within a society. Compared with traditional national-level influences, such as generalized cultural values and broad social institutions, national socialization goals are more adjacent to the actual values of individuals regarding work. We examine the two dimensions of the NGSC, namely, self-directedness and civility, as possible moderators of the processes that link RCW to work-related personal factors. Self-directedness depicts a socialization contrast that emphasizes fostering the self-determination and independence of citizens (i.e., high self-directedness) over their obedience and religious faith (i.e., low self-directedness); civility depicts a socialization contrast that emphasizes fostering the tolerance and benevolence of citizens toward others (i.e., high civility) over their instrumentality and materialism (i.e., low civility) (Bond & Lun, 2014; Jing & Bond, 2015). Given that national socialization goals stand for the extant values that are used to nurture next generations, these goals well reflect national-level influence.

The importance of socialization for self-directedness in making relative work investment decisions lies in its emphasis on self-determination and individualism. Specifically, those individuals living in cultures with high self-directedness tend to experience socialization processes that emphasize independence rather than obedience.

Therefore, those individuals who hold positive attitudes toward work tend to perceive work as a means to realize self-determination and independence. Consequently, under this cultural context, those individuals with high WAG tend to place work in a more central position among their various life domains and invest more resources into their work. Cultures with high self-directedness also provide social–institutional contexts that emphasize the legitimacy of individuals’ personal preferences and interests that are achievable through work, thereby enabling individuals’ personal work attitudes to better exert their influence (Jing & Bond, 2015). Consequently, we predict that in highly self-directed national contexts, the positive influences of personal attitudes toward work (WAG) on RCW can be enhanced.

By contrast, the importance of socialization for civility in the development of RCW lies in interpersonal respect and shared humanity (Jing & Bond, 2015). Specifically, when work is believed to be “relationally” good to employees and a broader audience (i.e., high WAG), those individuals in civil cultures dedicate themselves further to work because their personal work orientations are consistent with those of the broader cultures. By contrast, national cultures with lower civility merely emphasize the instrumentality and utility of work in accumulating material resources; such emphasis is not aligned with the “relational” spirit that is encompassed in WAG (Inglehart & Oyserman, 2004). Consequently, we predict that in highly civil national contexts, the positive influences of personal attitudes toward work (WAG) on RCW can be enhanced.

H2: *Self-directedness moderates the relationship between WAG and RCW in such a way that this positive relationship becomes increasingly strong under high self-directedness.*

H3: *Civility moderates the relationship between WAG and RCW in such a way that this positive relationship becomes increasingly strong under high civility.*

We examine the consequential effects of RCW after hypothesizing its formative process. Specifically, we hypothesize how JC moderates the relationship between the RCW and LS of individuals and how the two national work-related cultural indices, namely, PO and national RCW, further extend this interactive effect.

### **Hedonic Consequence of RCW**

On the basis of prior findings, we posit that although the “absolute” work importance of individuals may relate to their improved, generalized well-being via several mechanisms (i.e., achievement and needs gratification) yet contrasts their investments in other life domains and reflects their general life goal/orientation, the positive effect of absolute work performance on well-being becomes elusive and uncertain because goals are neutral in terms of providing a sense of personal agency and a sense of structure and meaning to the daily lives of individuals (Diener, 1984; Diener et al., 1999). Consequently, the influence of work-oriented life goals on LS depends on the types of jobs that individuals perform (i.e., JC) and the extent to which work is emphasized in their national context (i.e.,



PO). Therefore, we do not make a direct hypothesis about the relationship between RCW and LS but instead focus on how the influences from different layers of context jointly moderate such relationship.

### **First-Order Moderating Role of Job Complexity**

We use the immediate influences from the current jobs of individuals (i.e., JC) as the first-order moderator because after forming work-centered life goals (i.e., RCW), individuals interact intensively with and rely more on their current jobs to confirm their prior life options.

JC refers to the extent to which the tasks in a job are complex and enriching (Shaw & Gupta, 2004). Complex jobs are usually regarded as more challenging, interesting, and engaging than simpler jobs (Morgeson & Humphrey, 2006). Although complex jobs are often more difficult than simpler jobs, their provisions of discretion, variety, and opportunities to execute talents not only enhance the self-efficacy and perseverance of individual workers but also help them achieve self-fulfillment in their work (e.g., Shalley et al., 2009; Valcour, 2007). Consequently, when performing complex work, individuals tend to experience satisfaction and achievement.

Following this logic, we posit that JC moderates the relationship between RCW and LS. Specifically, binding the life goals of individuals to their work merely suggests the importance of work to their judgments of happiness and well-being. However, the type of

work that individuals perform and the direct experience that they engender from work can confirm if their work-oriented life options are worthwhile.

Given that JC provides valuable incentives, such as enriching job contents, and can result in an engaging working experience (Tierney & Farmer, 2002), this concept can improve the well-being of workers with high RCW. By contrast, such pleasures from work may not be deemed important by those individuals who embrace non-work life domains as their central life interests. Moreover, highly complicated work procedures allow individuals not only to utilize their skills and talents better but to become more competent, focused, and perseverant because when these individuals perceive their working contents as challenging, they draw on more resources to steer their emotional experiences toward the positive while feeling a sense of accomplishment in performing their jobs (Huang, Chiaburu, Zhang, Li, & Grandey, 2015). Consequently, those individuals with high RCW tend to generate higher levels of achievement and positive work experiences by performing complex jobs (Man & Lam, 2003).

Previous studies (e.g., Avolio & Waldman, 1990; Oldham et al., 1991; Sparrow & Davies, 1988; Valcour, 2007) find that JC is a positive predictor of job satisfaction and that individuals working highly complex jobs tend to retain and elevate their cognitive abilities and are more able to focus on their work. In addition, those individuals who perform highly complex and challenging jobs tend to enjoy a higher level of intrinsic motivation, effort

exertion, and positive feelings about their jobs (Huang et al., 2015). By employing JC as a moderator, Zacher et al. (Zacher & Frese, 2011; Zacher, Heusner, Schmitz, Zwierzanska, & Frese, 2010) consistently found that JC could mitigate the negative effects of age on how individuals focus on their opportunities at work.

On the basis of these arguments and evidence, we expect that JC positively affects the relationship between RCW and LS. Therefore, we posit the following:

*H4: JC moderates the relationship between RCW and LS in such a way that this relationship becomes increasingly positive under high JC.*

## **Second-Order Moderating Role of National Culture**

In addition to the influence of the immediate working context, another important layer of context is the culture to which individuals belong. Cantor and Sanderson (1999) argued that pursuing goals could lead to happiness when these goals are simultaneously valued by the culture or when a large group of people share similar life options.

In the present research, we employ PO and national RCW as national level influences. PO represents the cultural endorsements of performance improvement and extrinsic/intrinsic rewards from work (Javidan, 2004), whereas national RCW refers to the status quo of a society's actual practices of emphasizing work. In the former, culture is represented as the shared beliefs among individuals about the meaningfulness of work. In the latter, culture is manifested as the average levels of actual work investments. Despite their

differences, PO and national RCW actually function in a similar vein by legitimizing and externally confirming the life pursuits of individuals at work.

We hypothesize that the effect of RCW on LS is regulated by JC because individuals with high RCW derive enjoyment from performing highly creative and cognitive work. We now posit that this two-way interaction is further moderated by the cultural context in which individuals belong. In a culture that attaches more value to the importance of work (i.e., high PO) or exhibits the societal practices of emphasizing work (i.e., high national RCW), the positive influence of engaging in complex work activities can be expanded. By contrast, if the culture does not value rewards from work or if most people in a society choose to embrace other life domains, the positive influence of JC becomes downplayed. Consequently, a three-way interaction among individuals, their immediate working situations, and the broader national context can predict LS.

First, individuals do not live in a “social vacuum,” and the legitimizations and recognitions of culture are important external confirmations of the work–life options of individuals. For individuals with high RCW, apart from the innate rewards from their direct working experience (i.e., high JC), cultures can also bring additional pleasures, such as social recognition, interpersonal confirmation, and social–institutional support, to facilitate the elevation of their hedonistic states (Hofstede, 2001; Hofstede & Bond, 1988). Second, the well-being of individuals is bound to culture (Diener et al., 2003). For a society that

emphasizes achieving rewards from work or placing work as a central life interest, innate work experience becomes extremely important because individuals in such a society mainly anchor their psychological weights on the work domain. By contrast, if a society does not emphasize work, then work becomes unimportant, and the positive effect of innate work experience can be downplayed.

We then hypothesize the following:

*H5: PO moderates the interactive effect of RCW and JC on LS in such a way that this interactive effect is strengthened under a high PO.*

*H6: National RCW moderates the interactive effect of RCW and JC on LS in such a way that this interactive effect is strengthened under high national RCW.*

## CHAPTER 4 STUDY 1

### THE FORMATIVE PROCESS OF RELATIVE CENTRALITY OF WORK

#### Participants

Study 1 is aimed at studying how the WAG orientation of individuals (H1) facilitates the emergence of their RCW and how the two dimensions of the NGSC moderate such emergence (H2-3).

We used an open source data, the Wave 5 of the WVS ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)), to test these hypotheses. The WVS is a representative, multi-national survey on human attitudes toward various subjects. Compared with the first four waves of WVS, its fifth wave was conducted between 2005 and 2008, with more respondents recruited from more representative nations (i.e., 82,992 participants from 57 nations) in interviews. Given that Study 1 focuses on work, we excluded those respondents who reported that they were not currently in employed work (i.e., retired/pensioned, unemployed, students, and housewives). We also excluded those respondents who did not respond to questions related to the variables of interest to this study. Therefore, our potential dataset was reduced to 29,080 participants from 45 nations (Table 4.1). The sample size for each country ranged from 327 participants in Mali to 1,203 participants in South Africa

Table 4.1

*Demographics for the National Samples in the Analysis.*

Country	Count	Percentage of Sample (%)	Mean Age (SD)	Women (%)
Andorra	892	3.1	39.5 (12.3)	49.0
Argentina	493	1.7	39.0 (13.4)	40.6
Australia	823	2.8	43.3 (12.7)	51.5
Brazil	639	2.2	37.9 (12.4)	48.2
Bulgaria	367	1.3	39.0 (10.0)	49.9
Canada	1,052	3.6	41.4 (12.6)	55.1
Chile	443	1.5	40.0 (12.6)	40.0
China	716	2.5	41.6 (11.9)	42.9
Cyprus	577	2.0	37.6 (11.5)	39.9
Ethiopia	661	2.3	33.0 (8.6)	31.8
Finland	508	1.7	42.0 (12.0)	50.2
Georgia	445	1.5	43.1 (12.6)	40.9
Germany	765	2.6	41.6 (10.7)	54.8
Ghana	824	2.8	37.4 (12.4)	47.5
India	739	2.5	39.6 (12.5)	15.8
Indonesia	1,021	3.5	38.2 (12.1)	33.5
Italy	491	1.7	42.2 (11.2)	40.9
Japan	539	1.9	44.7 (12.6)	43.8
South Korea	567	1.9	39.2 (10.8)	37.4
Malaysia	700	2.4	33.9 (10.4)	37.6
Mali	327	1.1	40.2 (13.9)	30.9
Mexico	751	2.6	37.0 (12.5)	27.7
Moldova	496	1.7	41.0 (11.6)	45.2
Morocco	901	3.1	36.2 (12.0)	46.5
Norway	708	2.4	42.7 (11.8)	47.5
Peru	761	2.6	37.5 (12.0)	35.6
Poland	369	1.3	38.8 (11.1)	43.4
Romania	603	2.1	38.7 (10.8)	46.1
Rwanda	724	2.5	36.2 (12.1)	38.7
Viet Nam	594	2.0	37.7 (13.6)	46.8
Slovenia	459	1.6	39.3 (10.5)	39.4
South Africa	1,203	4.1	38.4 (10.8)	40.5
Spain	546	1.9	38.9 (11.4)	38.3
Sweden	650	2.2	44.5 (12.0)	46.8

Switzerland	713	2.5	46.3 (11.6)	51.2
Thailand	1,148	3.9	43.4 (13.3)	47.7
Trinidad Tobago	496	1.7	37.4 (12.8)	42.3
Turkey	504	1.7	34.5 (10.5)	20.8
Ukraine	475	1.6	39.0 (11.0)	60.4
Egypt	1,043	3.6	40.9 (10.9)	21.2
United States	650	2.2	42.2 (12.6)	44.8
Burkina Faso	389	1.3	36.1 (11.5)	25.2
Uruguay	406	1.4	41.1 (14.3)	42.6
Zambia	352	1.2	33.3 (10.3)	38.9
Serbia	550	1.9	38.9 (10.5)	41.1
All 45 Nations:	29,080	100.0	39.5 (12.2)	41.5



(mean=646). The participants had a mean age of 39.5 years (SD=12.2 years) and comprised 58.5% males.

The WVS questionnaire included two individual-level variables, namely, RCW and WAG, which were both relevant to our research.

## **Assessments and Measures**

### **Individual-level variables**

WAG. Five items from WVS were used to reflect WAG: “To fully develop your talents, you need to have a job,” “It is humiliating to receive money without working for it,” “People who do not work become lazy,” “Work is a duty toward society,” and “Work should always come first, even if it means less free time.” These items were answered using five-point scales, with “1” indicating a strong agreement and “5” indicating a strong disagreement. We reverse-coded this construct. The internal consistency of these five items ranged from .36 in Ghana to .79 in Argentina, with an average Cronbach’s alpha of .62 (SD=.09) across all nations.

To test whether this five-item WAG measure was equivalent across the 45 countries in our sample, we performed multi-group confirmatory factor analysis (CFA) using Lisrel software. Although the results showed a satisfactory configural invariance,  $\chi^2(1330.32)/df(225)=5.91$ , CFI=.95, and RMSEA=.09 (90% CI: .08 to .09), neither metric invariance nor scalar invariance was achieved in the sample,  $\chi^2(2331.03)/df(401)=5.81$ ,

CFI=.92, RMSEA=.09 (90% CI: .08 to .09), and  $\chi^2(9174.94)/df(577)=15.90$ , CFI=.62, RMSEA=.15 (90% CI: .15 to .15), respectively (for the recommended cut off values, see Chen, 2007 and Milfont & Fischer, 2010). In sum, the factor loadings and item intercepts for our WAG measurement were not equivalent across the 45 nations.

Such lack of metric invariance and scalar invariance may cause estimation bias in the regression slopes and the means for cross-cultural comparisons. However, such bias does not present a major concern in this study because of theoretical and empirical reasons. First, we focused on how two NGSC could moderate the relationship between WAG and RCW and not on the magnitude of this individual-level association per se or the mean comparisons of WAG levels. Second, we compared the regression slopes of RCW on the latent WAG factor with or without constraining metric invariance (i.e., factor loadings) across all countries. We observed minimal changes in these slopes, which indicated the negligible influence of measurement non-equivalence on the estimated relationship.

*RCW.* In the WVS, six items regarding the importance of different life domains, including family, friends, leisure, politics, work, and religion, were employed to capture RCW. Specifically, the respondents were asked to rate the importance of each domain on a four-point scale (1=very important and 4=not at all important). Consistent with our conceptualization, we calculated the RCW scores by dividing the importance scores by the sum of all six domain scores. In line with the work of Pelham and Swann (1989), we contend

that importance can be better conceptualized and measured by focusing on differential importance rather than on absolute importance. The individual RCW values ranged from .05 to .36.

#### National-level variables

*NGSC.* In the WVS, the respondents were asked to choose up to five qualities (from 10 items) that they considered important in nurturing their children at home. These qualities included (1) independence, (2) hard work, (3) feelings of responsibility, (4) imagination, (5) tolerance and respect for other people, (6) thrift and saving money and things, (7) determination and perseverance, (8) religious faith, (9) unselfishness, and (10) obedience. Using these data, Bond and Lun (2014) identified two orthogonal dimensions of socialization goals (self-directedness and civility) and computed their national scores for the 55 countries involved. The sample items for self-directedness included “independence” and “obedience,” with the higher score of the former item marking the high self-directedness end and the higher score on the latter item marking the low self-directedness end. Similarly, for the civility dimension, a higher score on “tolerance and respect for other people” marks the high civility end, whereas a higher score on “thrift and saving money and things” marks the low civility end.

*Control variables.* We controlled for age and gender because of their salient influence on the formation of work centrality (e.g., Bal & Kooij, 2011). We also controlled

for GDP per capita for each country in 2005 for two reasons. First, people in poorer countries (i.e., low GDP per capita) tend to emphasize work relative to other life domains (i.e., family and leisure) because their insufficient national wealth drives them to perform their work diligently (Van de Vliert, Huang, & Levine, 2004). Second, GDP per capita is correlated with national goals, such as self-directedness and civility (Bond & Lun, 2014); therefore, the cross-level interaction with national goals may result from confusion with GDP. Our analysis indicated the remaining influence of socialization goals after disregarding the influence of national wealth.

### **Analytical Strategy**

Given that our research model included constructs at both the individual (i.e., WAG and RCW) and national levels (i.e., NGSC), we performed a multilevel analysis to examine the proposed relationships.

Specifically, we explored the importance of general work orientations (i.e., WAG) in the lives of employed individuals relative to their RCW and then determined how different national cultures of socialization (self-directedness and civility) relate to and moderate these processes. Prior to our multilevel analysis, we group standardized the focal antecedents and moderator at the individual level (i.e., WAG) and then grand standardized all control variables at their respective levels (i.e., GDP per capita, age, and gender). Given that the two NGSC were calculated on the basis of standardized factor scores, we directly employed them

in the analysis. We also standardized the individual RCW scores because their original proportional format lacks statistical meaningfulness (Fischer & Milfont, 2010).

We estimated all predictors, including the antecedents (i.e., WAG and WI), covariates (i.e., age, gender, and GDP per capita), moderators (i.e., gender, self-directedness, and civility), and their interaction terms, in the same model.

## Results

### *Descriptive Statistics and Zero-Order Correlations*

We computed the descriptive statistics and correlations between all variables of interest in Table 4.2. With the exception of age ( $r = -.01$ , ns), RCW was correlated with gender ( $r = -.06$ ,  $p < .01$ ) and WAG ( $r = .10$ ,  $p < .01$ ).

Table 4.2  
*Means, Standard Deviations, and Pearson Correlations between Variables of Interest.*

	Mean	Standard Deviation	1	2	3	4
1. Age (in Years)	39.54	12.22	--			
2. Gender	--	--	-.03**	--		
3. Work as Good	3.76	.74	.09**	-.04**	--	
4. Relative Centrality of Work	.19	.03	-.01	-.06**	.10**	--
			5	6	7	
5. Self-directedness	.00	1.04	--			
6. Civility	-.03	.99	.03	--		
7. GDP per capita (in USD)	14171.44	17228.54	.78**	.40**	--	

Note. Values below the diagonal show the correlations. Gender ("0" = Male; "1" = Female).

\* $p < .05$ ; \*\* $p < .01$ .

Sample size = 29,080 respondents in 45 countries.

At the national level, similar to the findings of Bond and Lun (2014), GDP per capita was positively correlated with self-directedness ( $r=.78$ ,  $p<.01$ ) and civility ( $r=.40$ ,  $p<.01$ ), whereas self-directedness was insignificantly correlated with civility ( $r=.03$ , ns).

### ***Multilevel Analysis***

We conducted a multilevel analysis to assess whether the influences from a positive orientation toward work (i.e., WAG) varied across various countries and whether country-level socialization goals moderated such difference. Table 4.3 shows that GDP per capita ( $b=-.16$ ,  $p<.05$ ), gender ( $b=-.04$ ,  $p<.01$ ), and WAG ( $b=.10$ ,  $p<.01$ ) were significantly related to RCW, whereas the two socialization goals were unrelated to RCW. This result indicates that individuals tend to place greater emphasis on work if they live in poorer countries, if they are males, and if they have positive attitudes about work. By contrast, some factors, such as living in nations with different goals for socializing their human capital, do not influence the RCW of individuals. Therefore, Hypothesis 1 was supported.

*Interactions with national culture.* Regarding the moderating roles of the two NGSC, the moderations by self-directedness ( $b=.05$ ,  $p<.01$ ) and civility ( $b=.02$ ,  $p<.01$ ) were both positively significant, thereby supporting Hypotheses 2 and 3. Figures 4.1 and 4.2 plot these two interactions and show that the relationship between the personal orientation of WAG and RCW is strong in countries with high self-directedness (simple slope $=.14$ ,  $p<.001$ ) or civility (simple slope $=.11$ ,  $p<.001$ ) but weak in nations with low self-directedness (simple slope $=.05$ ,

p<.01) or civility (simple slope=.08, p<.001). Therefore, personal orientation toward work exerts an extremely low influence on the RCW of individuals in cultures that de-emphasize a personal locus for choice and shifts the importance of these domains toward other engagements with the world, especially religion and relationships with family and friends.

Table 4.3  
*Multilevel Analysis in Predicting the Relative Centrality of Work.*

<i>Main effects</i>	<i>Beta</i>	<i>t</i>
<u>Covariates</u>		
Age	-.01	-1.22
GDP per capita	-.16*	-2.36
Gender	-.04**	-6.96
<u>Individual level</u>		
Work as Good	.10**	17.00
<u>National level</u>		
Self-directedness	.08	1.32
Civility	.04	1.00
<u>Two-way interactions</u>		
Work as Good x Self-directedness	.05**	8.42
Work as Good x Civility	.02**	2.87

Note. \* p<.05; \*\* p<.01.

Sample size=29,080 respondents in 45 countries.

The above results suggest that investing importance in the work domain relative to other domains is personally meaningful, with WAG being consistently and positively correlated with RCW. Although two national goals moderate such process, they can only regulate the strength of the positive influence of WAG rather than change the direction of its influence.

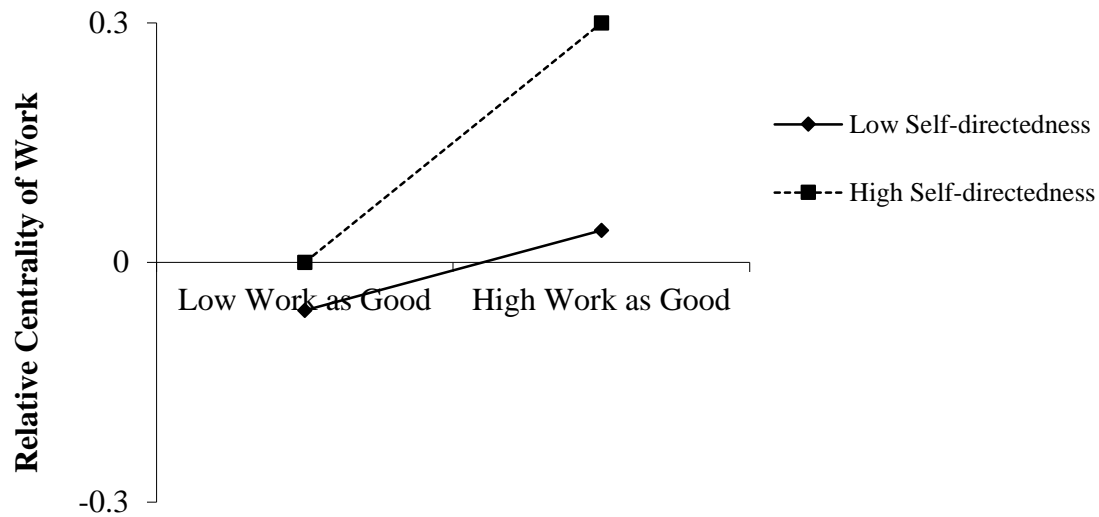


Figure 4.1 Interaction between Work as Good and Self-directedness on the Prediction of Relative Centrality of Work.

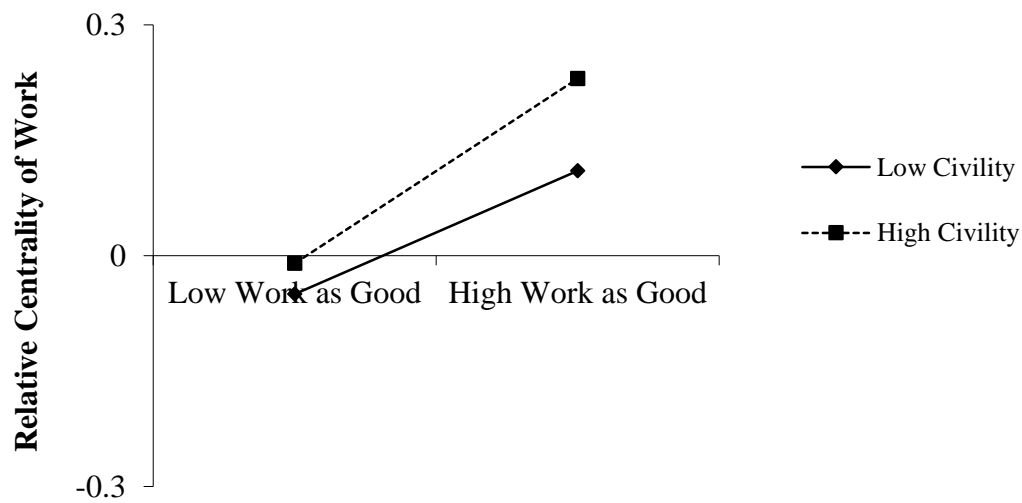


Figure 4.2 Interaction between Work as Good and Civility on the Prediction of Relative Centrality of Work.

### Post-hoc Analysis

As WAG is a value and RCW represents goals, people do not have to be employed to have these values and goals, we thus included those unemployed participants in our



analysis. Our findings have been largely consistent with what we found in Table 4.3.

Additionally, we also conducted analyses when the last item of WAG (i.e., “work should always come first, even if it means less free time”) is deleted (due to its homology with the outcome of interest – RCW), and when individuals’ self-reported social-economic status is controlled. These changes did not influence our extant research findings.

## **Discussion**

Study 1 is primarily aimed examining the antecedents of work centrality cross-nationally and discovering how national cultures shape the formation of work centrality. We hypothesize that the personal orientation of WAG contributes to the RCW of individuals and that the socialization goals of a nation for self-directedness and civility are cultural facilitators that strengthen the linkage between this antecedent and RCW.

We performed a multilevel analysis to test our hypotheses against representative data across 45 countries from WVS-5 (2005–2008). Consistent with our hypotheses, the work attitude complex, WAG, of an individual was positively and strongly associated with his/her RCW, and such influence was amplified in national cultures that emphasized either self-directedness or civility. On the basis of these outcomes, we developed a social–psychological model that explains why employed persons dedicate themselves (more or less) to work relative to other life domains and highlights the contextual effect of the NGSC on this process.

WAG exerts a stronger positive effect on individuals from nations with a higher level of self-directedness or civility. Given that individuals from nations with high self-directedness are socialized to value determination, perseverance, responsibility, and independence, they tend to be motivated by internal and individual values that surround any outcome of interest. By contrast, those individuals from nations with low self-directedness are less influenced by their individually espoused values or the aforementioned qualities, but they are socialized to value religious faith and obedience. These individuals regard work merely as an obligation to comply with the social norm. Therefore, the strength of their internal attitudes toward WAG has a relatively weak effect on their RCW.

By contrast, those individuals from nations with high civility are socialized to value unselfishness as well as tolerance and respect for other people. Therefore, they place more emphasis on work when they believe that work is a blessing not only to them but also to the whole society (i.e., high WAG). However, those national cultures with low civility emphasize the instrumentality of work and personal selfishness, which downplay the influence of WAG.

Despite these cultural differences, WAG remains a consistent predictor of RCW. This result indicates that the personal attitude of an employed person toward work can influence his/her work emphasis even if such emphasis adopts a “relative” criterion and is contrasted with many other major life domains.

### ***Theoretical and Practical Implications***

Our study contributes to the literature in three ways. First, work centrality has long been regarded as a major issue in the work behavior literature (Avery, Harpaz, & Liao, 2004; Miller, Moehr, & Hudspeth, 2001; MOW, 1987; Mannheim, 1975). However, previous studies on the antecedents of work centrality only focus on generalized individual characteristics (i.e., demographic variables and scattered personality dimensions; Kostek, 2012) or institutional factors (Parboteeah & Cullen, 2003), and studies on work centrality are mostly conducted in Western and developed nations (MOW, 1987). We extend the literature by examining the key determinants of the work centrality of employees from 45 culturally diverse nations. We use a key individual-level predictor, work orientations, or the attitude complex of WAG (Blood, 1969; Mirels & Garrett, 1971) and reveal meaningful cross-cultural differences in the determinants of RCW in the lives of individuals.

Second, we use a unique operationalization of work centrality. Following MOW (1987), we capture this “relative” construct by deliberately assessing the importance of work to an individual relative to his/her other life domains. In a meta-analytic study, Kostek (2012) found that a measure of RCW yields highly consistent and reliable results because juxtaposing work with other life domains could overcome response biases that result from positive attitudes toward those measures that only target one life domain (i.e., work). By demonstrating that WAG can predict the RCW of individuals, we go beyond prior knowledge (i.e., work attitude as a predictor of “absolute” work importance) and show that WAG also

facilitates the importance that an individual places on work relative to his/her other life domains.

Third, we further advance the existing knowledge about the moderating effects of two newly developed cultural dimensions, namely, civility and self-directedness (Bond & Lun, 2014), on individual-level processes. Previous studies on the cross-cultural differences in work centrality and work motivation (Huang & Van de Vliert, 2003) are mainly based on value-based cultural dimensions, such as the cultural framework of Hofstede (2001), the two-dimensional managerial values of Smith et al. (1996), and the mapping of social axioms of Bond et al. (2004). However, we argue that how individuals are raised by their parents and are socialized by societal institutions can form a powerful cultural force that shapes their values and beliefs. Therefore, the socialization goals for children moderate the influence of personal attitudes on the RCW of individuals.

### ***Limitations and Future Research***

This study also has several noteworthy limitations. First, although we rely on a very large dataset to examine our models, we cannot draw firm conclusions about the causality of the relationships owing to the cross-sectional nature of the WVS. However, our models were developed on the basis of established theoretical models in the literature, and the meaningful cross-level interactions found in our study may make the argument for reverse causality difficult. Given that collecting longitudinal cross-cultural data can address the causality

problem, such objective is difficult to achieve, and we call for future research to collect such data.

Second, by operationalizing RCW as the proportion of work importance in relation to overall life engagement, we follow a scarcity principle to capture the essence of work centrality (Marks, 1977). In this perspective, individuals have limited time and energy and thus need to balance the amount of time and energy that they commit to or invest in their working arena. By contrast, network-embeddedness explicitly incorporates the possibility of interdependence among the roles of different life sectors. Similar or different persons may have overlapping roles, and they can spend their scarce time and energy to sustain two or more identities simultaneously. Consequently, such assumption may limit our findings, and if conditions allow, future research must explore other measurements of work centrality by following alternative assumptions.

Third, we only use importance ratings to capture the concept of work centrality. Given the potential gap between attitudinal ratings and actual work investment, this operationalization may be problematic in terms of internal validity. Therefore, future research may consider replicating our research model by using highly objective measures (i.e., time allocated to different life sectors) or several different measures (i.e., time, involvement, and satisfaction, see Greenhaus, Collins, & Shaw, 2003) simultaneously to cross-validate our findings.

Fourth, given that previous studies only explore the formative processes of RCW, future studies may investigate the consequences that may be solicited by RCW. Specific research questions may include “Does higher emphasis on work imply an enhanced job performance,” “Would higher RCW cause a work–life imbalance as shown in the work–life balance literature,” and “To what extent does the dedication of individuals at work enhance their quality of life and overall life satisfaction?” We believe that answering these questions will not only deepen our understanding of work investment decisions but also provide us with further insights into whether our dedications at work actually pay off and how we must invest our efforts into work and non-work domains. To answer this call, Study 2 examines the consequential effect of RCW on the well-being of individuals and how the variables from the job contexts and national cultures of individuals moderate such effect.

## **CHAPTER 5 STUDY 2**

### **THE CONSEQUENTIAL EFFECT OF RELATIVE CENTRALITY OF WORK**

#### **Participants**

Study 2 aims to examine how RCW influences the LS of individuals when a variable from the immediate work context of an individual (JC) functions as the first-order moderator (H4) and when two cultural indices (PO and national RCW) function as the second-order moderators (H5-6).

Similar to Study 1, we tested our model using data from WVS-5 that were collected from 57 countries and regions in 2005. These data, which are available in [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org), included representative samples of a nation's population aged 15 years and above. However, given that only 35 out of the 62 surveyed countries in the GLOBE Project overlapped with WVS-5, the national samples from 22 countries (including Andorra, Bulgaria, Chile, Cyprus, and New Zealand) should be deleted. We also excluded unemployed respondents (i.e., retirees, students, and housewives) or those individuals who failed to report our focal research variables (i.e., RCW, LS, and JC). Therefore, we included in our analysis 22,796 respondents who were aged between 15 years and 91 years (mean=39.86, SD=12.23) from 32 countries. Table 5.1 presents further details about these countries.

Table 5.1

*Demographics for the National Samples in the Analysis.*

Country	Count	Percentage of Total Sample	Mean Age (SD)	Women (%)	Performance Orientation	National RCW
Argentina	521	2.2	39.31(13.54)	41	6.35	.1952
Australia	832	3.5	43.32(12.84)	51	5.89	.1764
Brazil	652	2.8	37.80(12.34)	49	6.13	.1862
Canada	1,090	4.6	42.37(12.67)	55	6.15	.1794
China	804	3.4	42.16(12.00)	44	5.67	.1981
Finland	510	2.2	42.01(11.98)	50	6.11	.1820
France	493	2.1	39.09(10.79)	47	5.65	.1942
Georgia	468	2.0	43.22(12.88)	39	5.69	.1804
Germany	812	3.4	41.54(10.74)	54	6.01	.1940
India	733	3.1	39.61(12.36)	16	6.05	.1925
Indonesia	1,029	4.4	38.29(12.23)	33	5.73	.1915
Iran	1,011	4.3	34.31(10.98)	19	6.08	.1913
Italy	513	2.2	42.26(11.23)	41	6.07	.1875
Japan	545	2.3	44.55(12.58)	45	5.17	.1871
South Korea	568	2.4	39.17(10.76)	37	5.25	.1946
Malaysia	700	3.0	33.85(10.40)	38	6.04	.1830
Mexico	760	3.2	37.03(12.47)	28	6.16	.1946
Morocco	962	4.1	36.36(12.03)	47	5.76	.1975
Netherlands	485	2.1	38.58(11.48)	48	5.49	.1788
Poland	399	1.7	38.97(11.20)	42	6.12	.1919
Russia	991	4.2	39.25(11.97)	50	5.54	.1949
Slovenia	480	2.0	39.34(10.52)	41	6.41	.1910
South Africa	1,212	5.1	38.45(10.89)	40	4.92	.1921
Spain	580	2.5	38.76(11.54)	39	5.80	.1917
Sweden	655	2.8	44.61(12.03)	47	5.80	.1816
Switzerland	731	3.1	46.20(11.57)	52	5.82	.1867
Thailand	1,155	4.9	43.44(13.26)	48	5.74	.1772
Turkey	511	2.2	34.50(10.52)	21	5.39	.1776
Egypt	1,048	4.4	40.91(10.90)	21	5.90	.1925
United States	651	2.8	42.15(12.61)	45	6.14	.1657
Great Britain	530	2.2	39.49(12.71)	46	5.90	.1756
Zambia	365	1.5	33.63(10.28)	38	6.24	.1873
32 Nations:	22,796	100	39.86(12.23)	41	5.85	.1872



## Assessments and Measures

### Individual-level variables

*RCW*. We captured *RCW* using the importance ratings on six life domains, namely, family, friends, leisure, politics, work, and religion (1=very important; 4=not at all important). Following the operations in Study 1, we reversed these scores in such a way that a higher score indicated the attachment of higher importance to a domain, and we then computed *RCW* by dividing the importance score of work by the total importance scores of all six life domains. Such operationalization not only considers work and other life domains but also controls the overall life engagement of focal individuals (i.e., the sum of all six domain importance scores, Greenhaus et al., 2003; Pomerantz, Saxon, & Oishi, 2000), thereby overcoming the response bias that may result from the propensity of individuals to give positive importance ratings on life domains. The individual *RCW* values ranged from .05 to .44.

Given that we contrasted the importance scores of work relative to the total importance scores of all six life domains, the aforementioned *RCW* range cover all recurring situations being encountered by individuals, and the range restriction does not present a significant concern in this study.

*LS*. We assessed *LS* using the following item: “All things considered, how satisfied are you with your life as a whole these days?” (1=completely dissatisfied; 10=completely

satisfied). Previous studies show that single-item measures may not necessarily be inferior to multiple-item scales (Gardner, Cummings, Dunham, & Pierce, 1998), especially when the construct to be captured is narrowly defined and straightforward in meaning (life satisfaction of individuals in the case of the present study).

*JC.* Two questions from the WVS constitute the two facet measures of JC. The first question, *Creative vs. Routine*, was assessed by the item, “Are the tasks you perform at work mostly routine or mostly creative tasks?” Such item was assessed with a 10-point scale ranging from 1 (mostly routine tasks) to 10 (mostly creative tasks). The second question, *Cognitive vs. Manual*, was assessed by the item, “Are the tasks you perform at work mostly manual or mostly cognitive tasks?” (1=mostly manual tasks; 10=mostly cognitive tasks). The internal reliability of these items ranged from .11 in India to .76 in Spain, with an average Cronbach’s alpha of .57 (SD=.13) across all nations. The scores of these items were summed to obtain the JC score of an individual.

#### National-level variables

*PO.* The PO index was directly extracted from Javidan’s chapter in the book of House et al. (2004) regarding the GLOBE Project. House et al. used two items to capture the extent to which a community encourages and rewards the practice of (1) rewarding performance improvement and (2) setting challenging goals.

*National RCW.* National RCW scores are computed as the average of the RCW scores of an individual within a specific country. Following the additive model of Chan (1998), we posit that despite individual variations in RCW, such variations must not influence national RCW to reflect the general importance of work in a country.

Table 5.1 reports these national scores.

*Demographic covariates.* We included age, gender, education, and GDP per capita as control variables because they were demonstrated as correlates of either RCW or LS in previous research (e.g., Bal & Kooij, 2011). We also controlled for individualism/collectivism and power distance, which we abstracted from the GLOBE project, as two national socio-cultural covariates because previous studies (e.g., Huang & Van de Vliert, 2002; 2003) show that workers in nations with high individualism or low power distance tend to develop higher order needs for self-esteem and self-actualization, thereby making these individuals less likely to gain satisfaction from doing manual or dehumanized routine work.

## **Analytical Strategy**

Given that this paper primarily aims to explore the hedonic consequence of RCW and examine how JC, PO, and national RCW moderate such consequence, we performed a multilevel analysis in Hierarchical Linear Modeling to test our model.

Specifically, we group-mean standardized the important antecedents and moderators at the individual level (i.e., RCW and JC) and grand-mean standardized all control variables (i.e., age, gender, education, GDP per capita, collectivism vs. individualism, and power distance) and the national-level moderator (i.e., PO and national RCW) to perform the multilevel analysis and obtain the standardized coefficients. Given the adequate sample size of country-level units in our sample, our reported results were based on robust standard errors. We estimated all predictors, moderators, and covariates in the same model.

## **Results**

### ***Descriptive Statistics and Zero-Order Correlations***

We calculated the descriptive statistics and correlations between all variables of interest (Table 5.2). At the individual level, except for the negative relation between RCW and LS ( $r = -.10, p < .01$ ), working persons tended to enjoy higher LS if they were females ( $r = .05, p < .01$ ), had received higher education ( $r = .08, p < .01$ ), and had performed work involving mostly creative and cognitive tasks (i.e., had higher JC) ( $r = .14, p < .01$ ).

RCW was negatively correlated with each individual-level variable. Although some of these relationships are as expected (i.e., females ( $r = -.07, p < .01$ ) or individuals with higher education ( $r = -.09, p < .01$ ) are less likely to place work as their central life goal), such negative pattern remains if individuals are older ( $r = -.02, p < .01$ ) and if JC characterizes their work ( $r = -.10, p < .01$ ).

Table 5.2

*Means, Standard Deviations, and Pearson Correlations between Variables of Interest.*

	Mean	Standard Deviation	1	2	3	4	5	6
1. Relative Centrality of Work	.19	.03	--					
2. Job Complexity	4.79	2.62	-.10**	--				
3. Life Satisfaction	7.28	1.73	-.10**	.14**	--			
4. Age (in Years)	39.86	12.23	-.02*	.03**	-.01	--		
5. Gender	.41	.49	-.07**	.06**	.05**	-.02**	--	
6. Education	.54	.50	-.09**	.29**	.08**	-.11**	.03**	--
			7	8	9	10	11	
7. Performance Orientation	5.85	.34	--					
8. National RCW	.17	.01	-.07	--				
9. Collectivism (vs. Individualism)	4.66	.51	.28	.26	--			
10. Power Distance	2.73	.31	-.35*	.18	-.17	--		
11. GDP per Capita (USD)	18,665	17,402	-.01	-.46**	-.36*	-.33	--	

Notes. Values below the diagonal show the correlations. Gender ("0" = Male; "1" = Female). Education ("0" = pre-secondary school; "1" = post-secondary school).

\*  $p < .05$ ; \*\*  $p < .01$ .

Sample size = 22, 796 respondents in 32 countries.

### ***Multilevel Analysis***

Given that the above bivariate correlations only revealed the preliminary relationships among the variables of interest across the whole sample, we conducted multilevel analysis to better unpack our model. Model 1 of Table 5.3 reveals that although education ( $\beta=.08, p<.01$ ) and JC ( $\beta=.12, p<.01$ ) facilitate LS, RCW is negatively related to LS ( $\beta=-.08, p<.01$ ).

*Interactions with JC.* As a confirmation of Hypothesis 4, JC ( $\beta=.03, p<.05$ ) positively moderated the relationship between RCW and LS. Figure 5.1 shows that individuals generally suffer from encompassing and committing to a work-centered life goal, and this relatively strong emphasis on work becomes even worse for those individuals who engage in routine and manual jobs (simple slope $=-.11, p<.01$ ). Although performing complex jobs can weaken this negative effect of RCW on LS, the downward trend cannot be reversed (simple slope $=-.05, p<.05$ ).

*Interactions with the national culture.* Consistent with our hypothesis about the fit among the person, immediate situation, and the broader culture, the variations in our national culture index (PO) revealed differences in the strength of the relationship between RCW and LS as a function of JC ( $\beta=.04, p<.01$ ), thereby supporting Hypothesis 5. By contrast, Hypothesis 6, which posits the moderating role of national RCW, was rejected.

Table 5.3

*Multilevel Analysis in Predicting Life Satisfaction.*

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Main Effects:</b>					
<u>Individual Level</u>					
Age	-.04	-.04	-.04	-.04	-.04
Gender	.01	.01	.01	.01	.01
Education	.08**	.08**	.08**	.08**	.08**
Relative Centrality of Work (RCW)	-.08**	-.08**	-.07**	-.08**	-.07**
Job Complexity (JC)	.12**	.12**	.11**	.12**	.11**
<u>National Level</u>					
Performance Orientation (PO)	.03	.08	.08	-.02	.03
National RCW	-.08	-.05	.01	-.07	-.09
GDP per Capita	.42**	.48**	.48**	.47**	.40**
Collectivism (vs. Individualism)	.21*	.16	.15	.16	.21*
Power Distance	.11	.17	.17	.17	.07
<b>Interactive Effects:</b>					
<u>Two-way Interactions</u>					
RCW x JC	.03*	.03**	.03**	.03*	.03**
RCW x Performance Orientation	.02	.01	.01	--	-.00
RCW x National RCW	-.04	-.03	--	-.03*	-.04**
<u>Three-way Interactions</u>					
RCW x JC x PO		.04**	.04**	--	.03**
RCW x JC x National RCW		-.01	--	-.01	-.02
RCW x JC x Collectivism					.01
RCW x JC x Power Distance					-.00
RCW x JC x GDP per Capita					-.01

Note. \*  $p < .05$ ; \*\*  $p < .01$ .

Sample size = 22,796 respondents in 32 countries.

In order to save space, all other two-way interactions (i.e., JC x Performance Orientation or/and JC x National RCW in Model 2-4; JC x Collectivism/Power Distance/GDP per Capita in Model 5) that have been controlled yet not that important have been omitted from reporting.

Specifically, Figure 5.2 shows a negative relationship between RCW and LS, except for employees who perform high-complexity jobs in nations with high PO (simple slope=.02, ns). Such outcome indicates that the national context that endorses the importance of work to

individuals (i.e., high PO) can strengthen the sense of well-being of employees from doing highly complex work, thereby eliminating the negative effects of pursuing work-centered life goals.

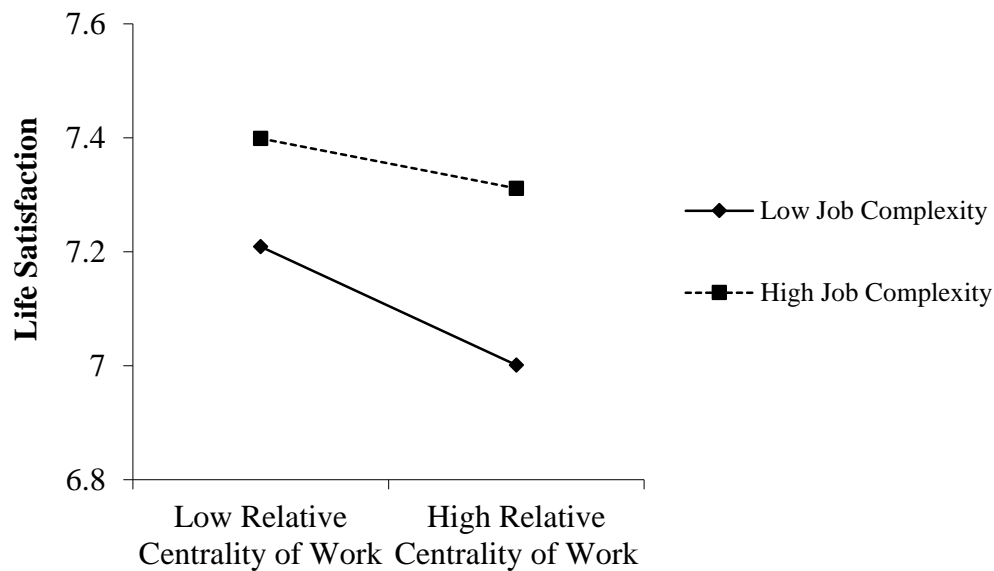


Figure 5.1 Interaction between Relative Centrality of Work and Job Complexity on the Prediction of Life Satisfaction.

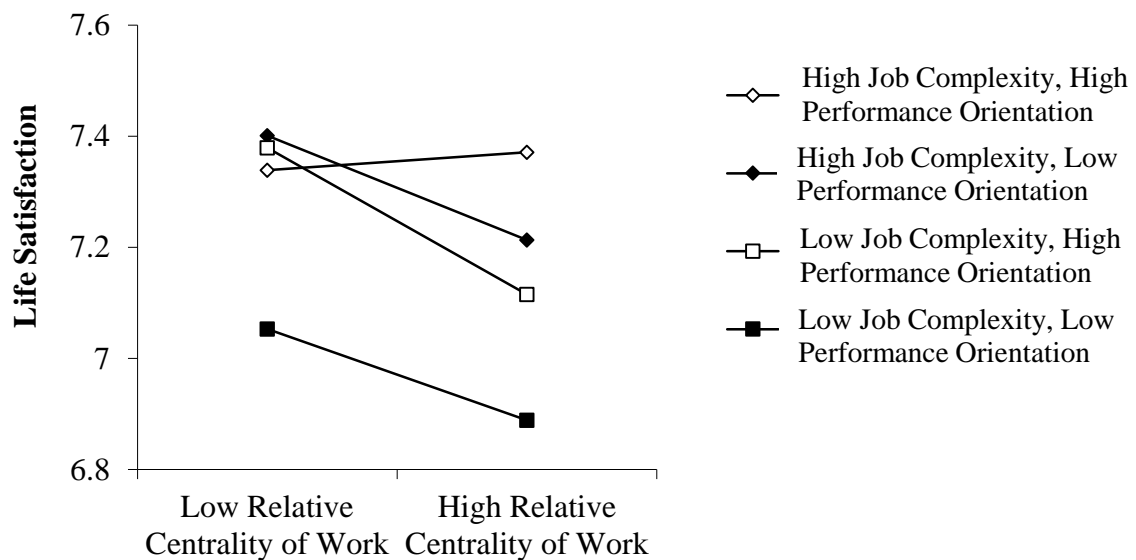


Figure 5.2 Interaction between Relative Centrality of Work, Job Complexity, and Performance Orientation on the Prediction of Life Satisfaction.



To corroborate the above findings, we separately analyzed the two national cultural indices, namely, PO and national RCW (see Models 3 and 4 in Table 5.3), and then added the interactive terms for collectivism, power distance, and GDP per capita into the model (Model 5 in Table 5.3). Given that the three-way interaction remained the same, we are confident that the cross-level interactions for RCW, JC, and PO can predict LS.

### ***Post-hoc Analysis***

We addressed the low reliability of the JC measure in some of the sampled nations. First, we deleted those nations with reliabilities for JC below .50, reanalyzed the data, and obtained the same results that are shown in Table 5.3. Second, we used the two items of JC, namely, creative versus routine and cognitive versus manual, as two indicators of JC in the analysis. Both items showed the same results that are presented in Table 5.3. Therefore, the low reliability of JC is not a major concern in this research.

### **Discussion**

To reveal the relative position of work in the overall life of an individual, we employed a sample of 22,796 working employees from 32 nations, which we extracted from WVS-5, in our examination of the relationship between RCW and LS. Although we did not propose a direct relationship between RCW and LS because of their elusive relationship, we revealed that working persons across the globe enjoy a higher level of well-being if they place a relatively higher emphasis on non-work domains instead of work. This finding

implies that placing work as a central life interest while neglecting other life domains is universally detrimental to individual well-being. Although goals are neutral to individuals, they may still serve as important reference standards or yardsticks because of their affect system; therefore, these goals are correlated with human happiness (Diener, 1984; Diener et al., 1999). On the one hand, given that individual commitment to goals may provide a sense of personal agency and a sense of structure and meaning to daily life, pursuing some goals can be more satisfying than pursuing other goals (Cantor & Sanderson, 1999). On the other hand, certain goal strivings (i.e., family, friends, and leisure) may satisfy intrinsic human needs, whereas other goals (i.e., work) are extrinsic in nature; therefore, fulfilling these goals can only bring short-lived hedonism (Kasser & Ryan, 1993). Previous studies (Kasser & Ryan, 1993) show that those respondents who prioritize financial success over self-acceptance, community feeling, and affiliation have a lower well-being.

In addition to this accidentally identified main effect, the present study investigated the moderating influences of immediate situations (i.e., JC) and the broader societal-cultural context for work (i.e., PO and national RCW) in this process. As a proximal situational factor, JC can attenuate this negative influence by providing “enriched” working contents and experiences even if this downward trend is not completely counterbalanced until national cultures offer a “distal” context in which hard work is valued and socially legitimated by the culture (i.e., high PO). However, in contrast to Hypothesis 6, national RCW fails to function

as a second-order moderator. This variable, which denotes the actual work emphasis of individuals in a nation, is negatively related to GDP per capita (see correlation Table 5.1), thereby indicating that people in poor countries tend to emphasize work because they can only meet their personal needs and improve their living standards through work. Under this situation, national RCW becomes a source of external pressure than confirmation.

### ***Theoretical and Practical Implications***

These findings contribute to research on several topics. First, previous studies establish a relationship between the work importance/investments of individuals and their positive states at work, but they do not explain whether the positive influence of work emphasis can be generalized to the overall lives of individuals. By focusing on the relative role of work across the various non-work life domains of individuals and finding that their RCW (or alternatively, work at the cost of family, friends, community, and religion) may be detrimental to their LS across the globe, our understanding of work and life is extended to a more comprehensive scale.

Second, by juxtaposing contextual variables at different levels (i.e., JC, PO, and national RCW) simultaneously in one research model, we not only examine the boundary conditions of the influence of RCW on LS but also advance the extant research on the fit of an employed person with his/her job situation and national culture. Previous studies on the person–situation fit treat situations at different levels (i.e., individuals, groups, units, firms,

and nations) as homogeneous. However, by distinguishing their effects at different levels and positing that culture can further extend the influence of the immediate situation, we obtain an integrated and comprehensive picture of how these contextual variables function jointly at different levels in the individual process.

Third, our study contributes to the research stream that employs telic theories to explain the relationship between the goals and well-being of individuals. Telic theories posit that the affect system and happiness of individuals are influenced by the types of goals that they pursue, their success with such goals, and the rate of progress toward achieving these goals (Diener et al., 1999). Correspondingly, previous studies examine the goals that are related to the various needs of individuals (i.e., profit making and self-acceptance) and find that the satisfaction or proximity of these needs is pivotal to their happiness. We not only investigate another important life goal (i.e., RCW) but also go beyond telic theories by demonstrating that the factors that decide the direct goal pursuit experience of individuals may also influence their sense of well-being.

Since the completion of the GLOBE project, PO has been identified as a distinctive, work-related national dimension of culture that can reveal national differences in work values, beliefs, and outcomes. However, most discussions on PO have been theoretical and rarely empirical. We advance our understanding of PO by linking the aforementioned theoretical speculations to the life goal orientations, job situations, and LS of individuals.

### ***Limitations and Future Directions***

Despite these contributions and cautions, this study also has several limitations. First, we concur with Diener et al. (1999), who argued that the extant LS/SWB research is restricted by cross-sectional designs; the same is true for our research. However, while we admit the many merits of a longitudinal research, we acknowledge the difficulties of adopting longitudinal designs in multi-national studies with representative populations. By using the cross-sectional design of the WVS, our research question about how RCW leads to LS is addressed in a conceptually rich manner by revealing two- and three-way interactions among fundamental contextual factors.

Second, our findings reveal that a relative emphasis on work is more of a “curse” than a “blessing” to individuals. However, given that we have not investigated other potentially important variables, we cannot clearly determine whether our conclusion remains valid if such variables are examined. For instance, some individual differences may have crucial roles in explaining the individual differences in well-being. For instance, some people are achievement oriented and intrinsically motivated, perceive work as a calling, and excel and flourish in their work through their personalities and intelligence. However, we cannot examine such possibilities because we are confined to the items available in WVS-5. The recently published WVS-6, which employs a 10-item Big Five personality measure, may

offer some opportunities for future research to investigate whether individuals can benefit from a relatively higher work emphasis if they are more conscientious or open to experience.

Third, given that we focus on how the relative positioning of work in the lives of individuals can influence their well-being, we directed our work toward work-related moderators (i.e., JC and PO). Future research may examine whether the moderators regarding non-work domains (e.g., marriage/family satisfaction or indulgence versus restraint—the sixth national dimension of Hofstede) can increase the attractiveness of non-work domains to individuals, thereby strengthening the negative effects of RCW on LS.

Fourth, we only examine LS and find that this outcome is negatively correlated with RCW. However, other work-related hedonic outcomes, such as work satisfaction, may also be positively correlated with RCW, whereas JC and national work cultures can be used as moderators to strengthen such positive relationship. Therefore, if conditions allow, future research must examine this possibility by differentiating a sense of well-being into its constituent contributors.

## **CHAPTER 6 SUPPLEMENTARY STUDY FOR STUDY 2**

### **TESTS FOR VALIDITY AND GENERALIZABILITY**

#### **Extensions**

Given that Study 2 used a second-hand, cross-sectional data, many validity issues (i.e., validities of focal constructs and causality) regarding our research model cannot be examined. Therefore, in this supplementary study, we employed a time-lagged design and recruited respondents from two cultural contexts (the U.S. versus India) to examine whether we can replicate our findings in Study 2.

#### **Participants**

We conducted our online survey using Prolific Academics, a legitimate online survey tool for social science research that gathers a large group of individuals who provide timely online inputs in exchange for monetary rewards. Given that these individuals work diverse occupations across different regional territories within a country, Prolific Academics can strengthen the representativeness of our collected samples for that nation and can benefit cross-cultural research.

We selected India and the U.S. as our surveyed countries because of the differences in the work-related values and beliefs of their citizens. In terms of PO, the U.S. tends to emphasize the competitiveness and actual performance of workers in the workplace, whereas

India emphasizes the interpersonal relations among individuals. Accordingly, these two countries are scored 6.14 and 6.05 in the GLOBE project report, respectively, with the score of the U.S. being slightly higher than that of India.

Our data collection process involved two phases. In phase 1, our online questionnaire, which included several constructs such as JC, RCW, and PO, received responses from 220 participants from the U.S. and 120 participants from India. A week later, we conducted phase 2, during which 195 and 95 participants from the U.S. and India, respectively, reported their LS. After deleting duplicates, mismatched samples, or samples with missing values, our final sample included 165 participants from the U.S. and 77 participants from India. The participants in the U.S. sample had a mean age of 33 years ( $SD=12.01$ ) and comprised 35% females, whereas those in the Indian sample had a mean age of 25 years ( $SD=7.12$ ) and comprised 81% males.

We compared the respondents who were retained in and eliminated from the final analysis and found that they did not differ in terms of demographics (i.e., age and gender).

## **Assessment and Measures**

*RCW.* We measured RCW by including six items from the WVS that were operationalized in our prior two studies.

For the U.S. sample, RCW ranged from .06 to .29 (mean=.16,  $SD=.04$ ). For the Indian sample, it ranged from .07 to .29 (mean=.19,  $SD=.03$ ).



*JC.* We measured JC using the three-item perceptions of the JC measure of Shaw and Gupta (2004), which includes the item, “My job is very complex.” JC had reliabilities of .80 and .84 for the U.S. and Indian samples, respectively.

*LS.* We assessed LS using the eight-item scale of Quinn and Shepard (1974), which asked the respondents to report their general life status. The items in this scale were expressed in semantic differential format (i.e., boring–interesting and useless–worthwhile). This construct had reliabilities of .92 and .90 in the U.S. and Indian samples, respectively.

*PO-Values.* We captured the PO-Values using nine items from Javidan’s chapter in the book of House et al. (2004), which were originally used to depict the characteristics of a high-PO society. We changed their referent targets from depicting a society to depicting focal individuals. The items included “I value what you can do more than who you are.” PO-Values had reliabilities of .77 and .83 and had means of 5.76 (SD=.80) and 4.91 (SD=.82) in the U.S. and Indian samples, respectively. One-way ANOVA tests revealed that this mean difference was statistically significant ( $F=75.78, p<.001$ ). Correspondingly, we coded the respondents from India and the U.S. as 1 and 0 in our further analysis.

Except for LS that was measured on a nine-point Likert scale, all other measures, including JC and PO-Values, were rated on a seven-point Likert scale.

### **Analytical Strategy**

We conducted a regression analysis to replicate the findings from Study 2.

## Results

### *Measurement Invariance*

We checked the measurement invariance for our two focal constructs (i.e., JC and LS) before examining our model. We performed a multiple-group CFA to check if the three-item JC was equivalent between U.S. and India. We observed configural invariance and metric invariance for this construct ( $\chi^2(2.83)/df(2)=1.41$ ,  $CFI=1.00$ ,  $RMSEA=.04$ ).

Following the same procedures, we also examined the measurement equivalence of the eight-item LS. We observed both configural invariance ( $\chi^2(20.66)/df(4)=5.17$ ,  $CFI=.98$ ,  $RMSEA=.13$ ) and metric invariance ( $\chi^2(25.38)/df(7)=3.63$ ,  $CFI=.98$ ,  $RMSEA=.11$ ); thus, the factor loadings for our measurement of JC and LS were equivalent between the U.S. and India. Therefore, we could use these measurements directly in our analysis.

### *Descriptive Statistics and Zero-Order Correlations*

Table 6.1 shows the descriptive statistics and correlations among all variables of interest. When the two national samples were combined, RCW did not show significant correlations with LS ( $r=-.01$ , ns). By contrast, the JC perceptions ( $r=.30$ ,  $p<.01$ ) and PO-Values ( $r=.26$ ,  $p<.01$ ) were positively correlated with their reported LS.

Table 6.1

*Means, Standard Deviations, and Pearson Correlations between Variables of Interest.*

<u>Bi-Cultural Sample:</u>	Mean	SD	1	2	3	4	5	6
1. Age	30.07	11.18	--					
2. Gender	.29	.46	.22**	--				
3. RCW	.17	.04	-.05	.01	--			
4. Job Complexity	4.69	1.39	.13*	-.06	.18**	(.86)		
5. Performance Orientation	5.21	.91	-.12*	-.11	.39**	.26**	(.82)	
6. Life Satisfaction	6.28	1.55	.09	.12	-.01	.30**	.26**	(.91)
<u>US:</u>								
<u>India:</u>								
1. Age	24.94/33.03	7.12/12.01	--	.22**	.04	.21**	.03	.20**
2. Gender	.19/.35	.40/.48	.03	--	.11	-.01	-.01	.20**
3. RCW	.19/.16	.03/.04	.11	-.04	--	.18*	.32**	-.08
4. Job Complexity	4.85/4.60	1.27/1.45	-.01	-.14	.14	(.78)/(.90)	.15*	.37**
5. Performance Orientation	5.76/4.91	.80/.82	.03	-.08	.24*	.45**	(.83)/(.77)	.19*
6. Life Satisfaction	6.71/6.06	1.55/1.51	.08	.07	-.13	.14	.18	(.90)/(.92)

Note. \*  $p < .05$ ; \*\*  $p < .01$ . Sample size for India = 77; Sample size for US = 165.

Gender: 1 = Female; 0 = Male. RCW is calculated by using respondents' work importance scores divided by their scores on the sum of all six life domain.

We then separately examined the two samples. Similar to the results in the combined sample, RCW ( $r = -.13$ , ns in India;  $r = -.08$ , ns in the U.S.) was not significantly correlated with the LS of individuals in both samples. JC ( $r = .37$ ,  $p < .01$ ) and PO ( $r = .19$ ,  $p < .05$ ) were positively correlated with LS in the U.S. sample but was not significant in the Indian sample ( $r = .14$ , ns for JC;  $r = .18$ , ns for PO).

### ***Regression Analysis***

We employed RCW in our regression analysis. Models 1 of Table 6.2 shows that although non-significant, RCW ( $\beta = -.09$ , ns) was negatively related to LS.

*Interactions with JC.* Supporting Hypothesis 4, JC ( $\beta = .12$ ,  $p < .05$ ) positively moderated the relationship between RCW and LS. As illustrated in Figures 6.1, individuals suffer from encompassing and committing themselves to work-centered life goals when they perform simpler jobs (simple slope  $= -.48$ ,  $p < .01$ ). By contrast, performing highly complex jobs flattens this downward trend (simple slope  $= -.02$ , ns).

*Interactions with national culture.* Consistent with Hypothesis 5 regarding the fit among the person, immediate situation, and the broader culture, the national index of PO (country) moderated the interactive effect of RCW and JC on LS ( $\beta = .13$ ,  $p < .05$ ). Figure 6.2 plots this significant effect and shows that individuals who embrace work-oriented life goals engender a greater level of LS if they conduct challenging and interesting jobs and if they live

in countries that emphasize gaining rewards from work (simple slope=.71,  $p<.1$ ). Otherwise, those individuals with high RCW suffer losses in their well-being.

Table 6.2

*Multilevel Analysis of the Effects of Relative Centrality of Work on Life Satisfaction.*

<b>Main Effects:</b>	Outcome: LS		
	Model 1	Model 2	Model 3
<u>Control Variables</u>			
Age	.06	.10	.10
Gender	.11	.17**	.16**
<u>Main Variables</u>			
Relative Centrality of Work (RCW)	-.09	-.14*	-.09
Job Complexity (JC)		.31**	.31**
Country		.33**	.31**
<b>Interactive Effects:</b>			
<u>Two-way Interactions</u>			
RCW x JC		.12*	.16*
RCW x Country			.07
JC x Country			-.07
<u>Three-way Interaction</u>			
RCW x JC x Country			.13*
R-Square	.01	.19	.20
Changed R-Square	--	.17**	.01+

Note. +  $p<.1$ ; \*  $p<.05$ ; \*\*  $p<.01$ . Sample size for India = 77; Sample size for US = 165. Gender (1 = Female; 0 = Male); Country (1 = India; 0 = US).

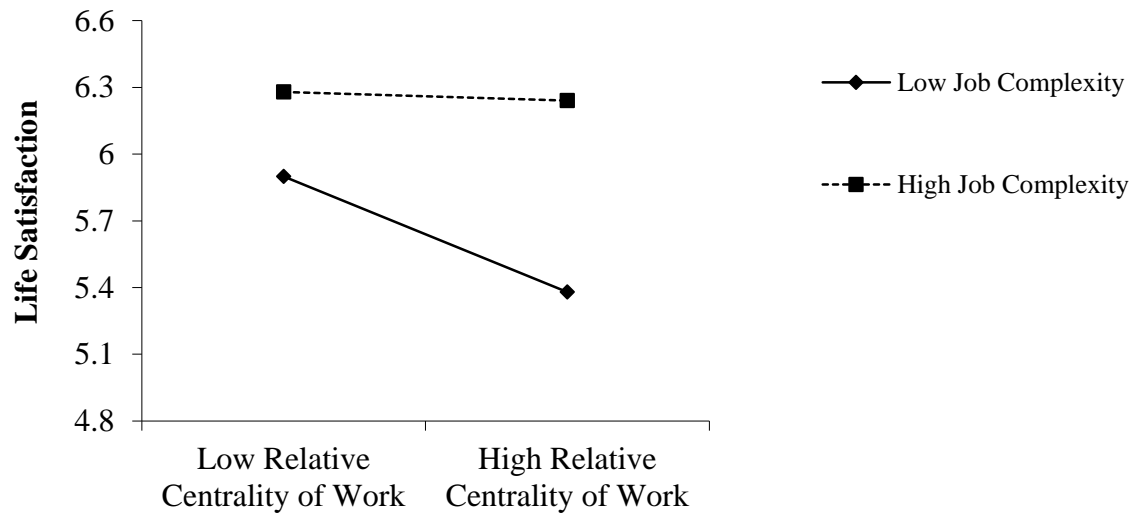


Figure 6.1 Interaction between Relative Centrality of Work and Job Complexity on the Prediction of Life Satisfaction.

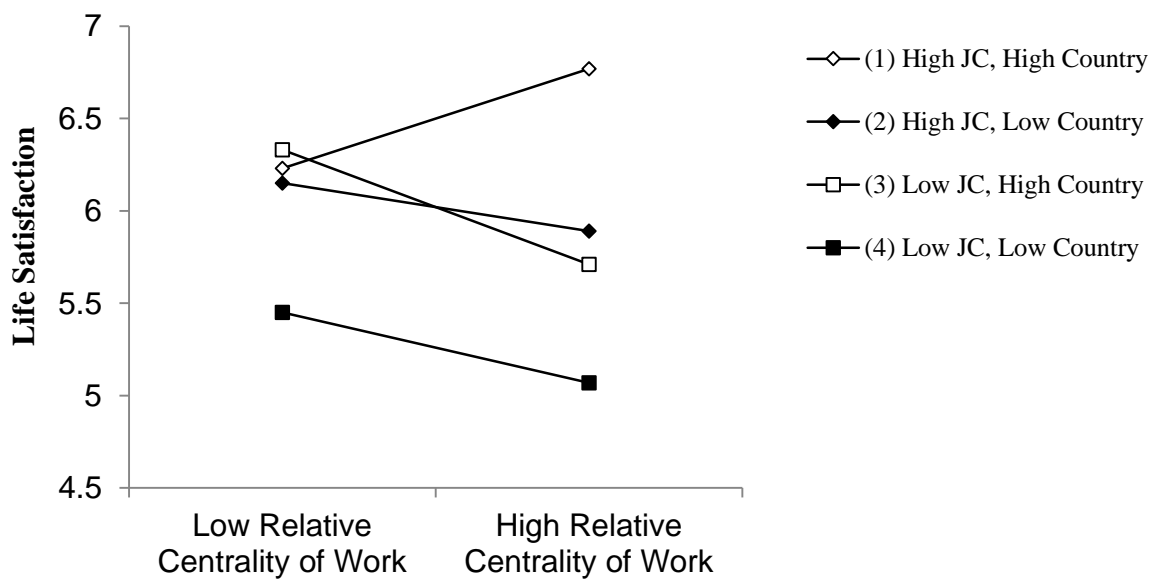


Figure 6.2 Interaction between Relative Centrality of Work (RCW), Job Complexity (JC), and Performance Orientation (India/US = High Country/Low Country) on the Prediction of Life Satisfaction.

## Summary

By employing samples from two cultural contexts, namely, India and the U.S., we replicated the findings of Study 2. Our regression analysis revealed that JC positively

moderated the relationship between RCW and LS and that PO further extended this interactive effect.

However, we still observed some differences in the results of the Supplementary Study and Study 2. First, JC in Study 2 merely reduced the strength of the negative relationship between RCW and LS, whereas JC in the Supplementary Study completely eradicated this negative trend. Second, in Study 2, the involvement of culture (PO) transformed the negative relationship between RCW and LS into a non-significant one, whereas in the Supplementary Study, the effect of culture transformed such relationship into a positive one.

Such divergence may be attributed to the differences in the research designs we adopted in these studies. Specifically, Study 2 included tens of thousands respondents from more than 30 nations, whereas the Supplementary Study only involved several hundred samples from two cultural contexts. Therefore, the results are more likely to be significant in Study 2 than in the Supplementary Study. In addition, by using well-established scales, the Supplementary Study also showed excellent internal validity, whereas with a larger sample Study 2 achieved better generalizability of findings and external validity. As a result, our conclusions in the following chapter are mostly based on Study 2 instead of the Supplementary Study.

This Supplementary Study also has several limitations. As mentioned earlier, individuals in India have higher PO values than those in the U.S., thus contradicting the findings from the GLOBE project that the U.S. has higher national PO scores than India. However, two issues warrant focus. First, given that the national PO scores in the GLOBE project range from 5.17 in Japan to 6.41 in Slovenia for the sampled 33 nations in Study 2, the differences in the scores between the U.S. and India are only minimal (the U.S. has a score of 6.14, whereas India has a score of 6.05) and may not be statistically significant. Therefore, the U.S. does not necessarily have a higher PO score than India. Second, the higher scores of India than those of the U.S. may also be attributed to sample uniqueness. For instance, the online respondents from the U.S. tended to have low PO, belong to low-income groups, and depend on surveying incentives to improve their lives. By contrast, those individuals in the U.S. with high PO may focus on their work instead of participating in these paid online surveys. The opposite situation may be observed in India. Specifically, not all people in India have computer and Internet access. Those people who participated in the online survey may belong to either the middle- or high-income groups and might have participated in the survey purely for fun. Nevertheless, if conditions allow, scholars must check if these speculations are correct. If so, future cross-cultural research must carefully select anonymous individuals online as their survey respondents.



## **CHAPTER 7 CONCLUSIONS**

Given the indispensable role of work in the overall life of individuals, a series of studies that cover various topics, including the job attitudes, behaviors, and characteristics of individuals, have been conducted to investigate this basic human life domain. However, the majority of the literature has been conducted within the working arena of individuals, and their findings cannot be generalized to all life domains. The present work aims to address this knowledge gap and examine how individuals emphasize work relative to their other major life domains. Specifically, we investigated what solicits their relative dedications to work and what are the consequences of such relative work emphasis. Given that work is a universal activity to all human beings yet individuals from different cultures embrace varying interpretations or understandings of work, we investigated our topics in a cross-cultural context.

We conceptualized our focal construct, RCW, as the relative importance that people place on work relative to their other life domains, including friends, leisure, politics, religion, and family. We focused on two lines of research by examining the antecedent of RCW, its consequence, and the moderating roles of cultural contexts. To study these relationships systematically, we conducted two independent empirical studies on the basis of second-hand cross-sectional data (see Chapters 4 and 5 for further details). We also performed a supplementary study that used a bi-cultural, time-lagged design to strengthen our two main

studies. Given that our thesis is majorly built upon these two main studies, this chapter provides a summary of our key findings and discusses their key implications. Afterward, we discuss the limitations of our research and provide directions for future research.

## **Summary of Key Findings and Implications**

Chapter 1 introduces the potential contributions of our research. In Studies 1 (Chapter 4) and 2 (Chapter 5), we report our findings and the contributions of our work. To avoid repetition, we summarize the implications of our findings concisely and elucidate our theoretical contributions at a higher abstract level.

### ***RCW Reflects the Work Attitudes of Individuals***

In Study 1, we examined the relationship between the positive orientations regarding work (i.e., WAG) and the RCW of individuals. We also investigated the cultural conditions under which WAG is more or less likely to lead to RCW. Specifically, the two dimensions of NGSC, namely, self-directedness and civility, were identified in the process.

Self-directedness emphasizes fostering self-determination and independence (i.e., high self-directedness) versus fostering obedience and religious faith (i.e., low self-directedness), whereas civility emphasizes fostering tolerance and benevolence toward others (i.e., high civility) versus fostering instrumentality and materialism (i.e., low civility) (Bond & Lun, 2014). Individuals with high WAG tend to emphasize work relative to other major life

domains when they are living in cultural contexts that emphasize either self-directedness or civility.

Study 1 offers two important implications. First, we reveal the crucial role of WAG in the decisions of individuals regarding their relative emphasis on work. Those individuals who hold positive orientations regarding work not only increase their “absolute” work importance scores but also willingly withdraw from other life domains (i.e., family and friends) to emphasize work. By contrast, those individuals who perceive work negatively are less likely to invest on work, let alone shift their attention away from their other major life interests. Therefore, advocating a specific life domain (i.e., WAG) not only increases the weights of that domain but also produces crowding-out effects on the other life domains.

Second, we investigate the above relationship in a meaningful cross-cultural context. Echoing the social investment perspective (Roberts et al., 2003) and the person–situation fit paradigm (Diener, Larsen, & Emmons, 1984), when individuals live under cultures that are congruent with or support their beliefs, their personal values tend to be executed and transformed into actual investment behaviors. This finding concurs with the mainstream cross-cultural research, which shows that culture can strengthen or downplay the occurrence of a relationship by either socializing the members of a society into the same values or providing social–institutional guarantees as social milieus. The positive work attitudes of

individuals can universally lead to their overemphasis on work. Nevertheless, the cultural context still plays an important role in regulating the strength of this positive relationship.

In sum, Study 1 implies that when the involvement of individuals in each life domain is treated as investments, their positive attitudes toward work or paid employment becomes a consistent predictor of their work centrality regardless of whether this outcome is measured singularly within the work arena or compared with other major life domains. National contexts assume the important role of regulating the strength of such individual processes. Our study differs from the majority of the literature in three senses. First, by employing WAG and work centrality as our constructs, our research focuses on work or paid employment in general instead of the current jobs of individuals. Second, we employ a relative measure of work centrality, and our findings go beyond the extant knowledge to reveal that positive work attitudes can improve the work investments of individuals even at the cost of their other major life domains. Third, despite the universality of the relationship between work attitudes and work behaviors, our cross-cultural investigations reveal national differences in the strength of such relationship, thereby implying the importance of national contexts in this individual process.

***Influences from Multilayers of Context Have Important Roles in the Relationship between RCW and LS***

In Study 2, we investigated the consequential effects of RCW on the LS of individuals. We also examined how JC, which results from the immediate working context of individuals, functions as the first-order moderator of such consequential effects and how two national cultural indices, PO and national RCW, function as second-order moderators. Complex jobs are often multifaceted and challenging (Morgeson & Humphrey, 2006); therefore, they not only provide a wider platform for individuals to execute their talents but also influence how much positive working experience individuals can derive from performing relevant tasks (Shaw & Gupta, 2004). PO and national RCW refer to the extent to which a society values obtaining rewards from work and emphasizes work; both constructs represent the external recognitions that individuals can receive from a broader context (Javidan, 2004). RCW is detrimental to the LS of individuals, and conducting challenging and complex jobs may downplay the negative trend of this relationship. PO further regulates the interactive effect between RCW and JC, and the involvement of PO may allow individuals to eradicate completely the negative effects of work overemphasis (i.e., high RCW).

Study 2 also offers several important implications. First, although not hypothesized, we find a negative relationship between RCW and LS, which is unexpected because of the pivotal role of work in our daily lives and the large volume of literature that documents the positive effects of work on the hedonism and personal development of individuals (i.e.,

callings, Wrzesniewski, McCauley, Rozin, & Schwartz, 1997; PWE, Furnham, 1984). Such negative result may be attributed to our unique way of operationalizing RCW. By contrasting the importance scores of individuals for work and non-work domains, our results show that work, relative to other life domains, slightly contributes to the well-being of individuals. This finding contradicts those of most previous studies that merely compare the differences in the emphasis that individuals place on work. Consequently, one must not say that work is universally good or bad to the hedonistic states of individuals but instead work at the cost of other life domains is not recommended.

Second, we find that JC moderates the relationship between RCW and LS. Although the current job characteristics of individuals can hardly influence the formation of their life investment portfolio, they can regulate the effects of such work emphasis by shaping the direct experiences of individuals at work. To the best of our knowledge, extant well-being theories (i.e., telic theory, Diener, 1984; Diener et al., 1999) mostly consider achievement/progress toward certain goals as a regulating force in the relationship between goals and well-being. However, the experience of pursuing goals can be as pivotal as the feelings of achieving goals.

Third, culture (i.e., PO) does not singlehandedly affect the relationship between RCW and LS. However, as hypothesized, culture works with the influence of the immediate work context to jointly influence the well-being of individuals. Those individuals with high

RCW need to perform complex jobs and live in cultures that value rewards from work to compensate for the damaging effects of withdrawing from their other major life domains. Therefore, our investigation explains why culture sometimes fails as a contextual variable and answers the calls for integrating the multilayers of contexts in the individual process (Mowday & Sutton, 1993).

## **Limitations**

Given that the preceding chapters already listed the limitations of our two main studies and supplementary study, we merely summarize such limitations in this section.

First, we employed second-hand cross-sectional data in our two main studies to test our hypotheses. These data offer many benefits. For instance, they provide researchers with access to tens of thousands of respondents from more than 50 representative nations.

However, using these data also has limitations, including the unproven validities of the focal constructs and the unsustainable causality of our findings. Therefore, we performed a supplementary study (Chapter 6) using a first-hand bi-cultural sample (i.e., India versus the U.S.), in which all constructs were measured with well-established scales and a survey was conducted twice.

Second, to calculate the RCW scores, we used the work importance scores of individuals to divide the sum of their scores on the six major life domains. However, when using this operationalization, some individuals may obtain the same RCW scores even if their

work importance ratings are different (i.e., an individual gives scores of 4, 4, 4, 4, 4, and 4 for the six domains, whereas another individual gives scores of 1, 1, 1, 1, 1, and 1). To address this problem, we defined our focal construct, RCW, as the relative importance that people place on work relative to their other major life domains, including work, friends, leisure, politics, religion, and family. This definition does not consider the absolute scores on work. Second, in the additional analysis for Studies 1 and 2, we replicated our findings by employing an alternative measure of RCW (i.e., the square term of work importance scores divided by the sum of the six life domain scores) or an additional control (i.e., the sum of the six life domain scores) in the analyses.

## **Directions for Future Research**

In Chapters 4 and 5, we discussed specific directions that could enrich the present models surrounding the RCW of individuals. To distinguish the current study from our prior efforts, we proposed some methods on how work centrality can be further advanced as a field.

### ***Clarifying the Definition and Theoretical Foundation of Work Centrality***

For a field to prosper, a consensus on the definition and operationalization of the focal constructs must be initially achieved. However, this contention is not applicable in the current stream of the work centrality literature. Our review reveals that previous studies adopt different conceptualizations to define work centrality, and these conceptualizations range



from the beliefs of individuals about the value of work and their willingness to be engaged in work (Kanungo, 1982; Warr et al., 1979). Some scholars also confuse the usage of the work involvement and work centrality scales. These problems can lead to fragmentations within the field and confusion to outside audiences.

Second, we need to clarify the theoretical foundations of work centrality and the key questions that scholars aim to answer on the basis of work centrality. The questions on work centrality are not clearly elaborated in the literature, and scholars use other constructs to investigate such questions. For instance, work centrality is sometimes defined as work involvement and is examined from an intrinsic motivation framework (i.e., Kanungo, 1982; Warr et al., 1979). In other cases, work centrality is defined as work–role centrality and is studied using social identity theory (i.e., Mannheim, 1975). Although we appreciate the practice of shifting perspectives to investigate the same phenomenon, better results can be achieved by employing alternate perspectives to examine the same construct instead of giving different definitions for the same construct. In this case, what is the difference between studying the work centrality and work involvement of individuals and that between work centrality and work identity?

Third, the MOW project report (1987) proposed two ways for measuring work centrality, namely, the “absolute” and “relative” ways. However, the similarities and differences of these two measures have neither been discussed nor empirically tested.

Therefore, we have no idea as to what extent the previous findings on work centrality can be interchanged across different measures. Consequently, future research can examine these operationalizations simultaneously and then explore how they converge to or diverge from each other.

### ***Identifying Other Antecedents and Outcomes***

Apart from our nomological model, we need to examine and identify the other antecedents and outcomes of RCW.

In terms of the antecedents of RCW, we need to study how the current economic status of individuals influences their different life emphasis. Previous studies reveal that individuals under poor economic conditions tend to place work as their central life interest because they rely on work to improve their lives (Mannheim, 1975). However, this argument cannot explain the possibility that under certain circumstances, some individuals give up their work pursuits and instead indulge themselves in non-work life domains, such as leisure and friends. We have no idea if the beliefs and national contexts of individuals have moderating roles in this case. Specifically, if people believe that hard work can bring success and that their nation only has a slight degree of social stratification (i.e., social inequality), then their unsatisfactory economic status may motivate them to emphasize work. By contrast, if they think that hard work will not make any changes and that their nation has a severe degree of social stratification, then they become unsure about whether their efforts at work will pay off.

Therefore, they tend to avoid the workplace. WVS-5 and 6 contain some items that measure the beliefs of individuals about whether hard work can bring success. The social inequality index, Gini, can be directly traced from other sources, such as the World Bank report.

Therefore, future studies may explore the above phenomenon along this direction.

Previous studies also produce mixed findings regarding the relationship between the education and work centrality of individuals. Some scholars (i.e., Siegel & Ruh, 1973; Mannheim et al., 1997) employ an investment perspective and propose commitment arguments to identify a positive relationship between education and work centrality, whereas others find a negative relationship between these two because higher education awakens the consciousness of individuals about living a complete life. Consequently, future studies must explore under what conditions education influences the work–life options of individuals.

Regarding the outcomes of RCW, we find that those individuals who place work as a central life interest do not necessarily demonstrate an excellent work performance (Diefendorff et al., 2002; Mannheim, 1997). By contrast, overemphasizing work can damage their job performance because such overemphasis also means higher expectations and emphasis on future returns, which may backfire on the intrinsic motivation of individuals in the workplace. Consequently, future studies must explore the opposite, alternative mechanisms that link work centrality to job performance and then identify the conditions in which certain mechanisms are suppressed or exacerbated.

### ***Adopting Alternative Research and Method Paradigms***

We focused on the importance of work in the context of the overall life profiles of individuals (i.e., RCW) as the focal construct. Future studies may compare work with any other life domains (i.e., family or leisure) if their research questions are relevant to the linkages between work and a specific life domain.

In terms of methodology, apart from our methods for distinguishing work from the other life domains, other methods warrant further explorations. For instance, in identifying the antecedents of RCW, we may treat the work importance scores of individuals and their importance scores on other life domains as two independent outcomes and then follow the methods of Edward (1995) for examining fit as the dependent variable to investigate how a possible antecedent influences the congruence between these two outcomes.

## APPENDIX

### APPENDIX 1 ITMES IN WORLD VALUE SURVEY FOR STUDY 1

#### (1) Relative Centrality of work (RCW)

For each of the following, indicate how important it is in your life. Would you say it is?

	Very important	Rather important	Not very important	Not at all important
Family	1	2	3	4
Friends	1	2	3	4
Leisure time	1	2	3	4
Politics	1	2	3	4
Work	1	2	3	4
Religion	1	2	3	4

#### (2) National Goals for the Socialization of Children (NGSC)

Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider especially important? Please choose up to five!

	Mentioned	Not mentioned
Independence	1	2
Hard work	1	2
Feeling of responsibility	1	2
Imagination	1	2
Tolerance and respect for other people	1	2
Thrift, saving money and things	1	2
Determination, perseverance	1	2
Religious faith	1	2
Unselfishness	1	2
Obedience	1	2

#### (3) Work as Good (WAG)

Please specify for each of the following statements how strongly you agree or disagree with it!  
Do you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree?

	Strongly agree	Agree	Neither	Disagree	Strongly disagree
To fully develop your talents, you need to have a job.	1	2	3	4	5

It is humiliating to receive money without working for it.	1	2	3	4	5
People who do not work becomes lazy.	1	2	3	4	5
Work is a duty toward society.	1	2	3	4	5
Work should always come first, even if it means less free time.	1	2	3	4	5

---

## APPENDIX 2 ITMES IN WORLD VALUE SURVEY FOR STUDY 2

### (1) Life Satisfaction

All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are “completely dissatisfied” and 10 means you are “completely satisfied” where would you put your satisfaction with your life as a whole?

Completely dissatisfied										Completely satisfied
1	2	3	4	5	6	7	8	9	10	

### (2) Task Characteristics: Manual vs. Cognitive

Are the tasks you perform at work mostly manual or mostly cognitive? If you do not work currently, characterize your major work in the past. Use this scale where 1 means “mostly manual tasks” and 10 means “mostly cognitive tasks”:

Mostly manual tasks										Mostly cognitive tasks
1	2	3	4	5	6	7	8	9	10	

### (3) Task Characteristics: Routine vs. Creative

Are the tasks you perform at work mostly routine tasks or mostly creative tasks? If you do not work currently, characterize your major work in the past. Use this scale where 1 means “mostly routine tasks” and 10 means “mostly creative tasks”:

Mostly routine tasks										Mostly creative tasks
1	2	3	4	5	6	7	8	9	10	

## APPENDIX 3 ITMES FOR SUPPLEMENTARY STUDY

### (1) Moral Importance of Work (MIW)

Please specify for each of the following statements how strongly you agree or disagree with it!  
Do you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree?

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
1. Working hard makes a man a better man.	1	2	3	4	5
2. A good indication of a man's worth is how well he does his job.	1	2	3	4	5
3. Rich people should feel an obligation to work even if they do not need to.	1	2	3	4	5
4. Work should be one of the most important parts of a person's life.	1	2	3	4	5
5. An unproductive worker is not loyal to his country.	1	2	3	4	5
6. I would quit my job if I inherited a lot of money (R).	1	2	3	4	5

### (2) Job Complexity

Please specify for each of the following statements how strongly you agree or disagree with it!  
Do you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree?

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
1. My job is very complex.	1	2	3	4	5
2. My job requires a lot of skill.	1	2	3	4	5
3. My job is such that it takes a long time to learn the skills to do the job well.	1	2	3	4	5

### (3) Relative Centrality of Work

Please assign 100 points to each of the following five life domains in terms of their importance.

	Points:
Work	
Family	
Leisure	
Community	
Religion	



#### (4) Life Satisfaction

Sometimes life has its ups and downs, but most of us have general feelings about our life. Please choose the circle between each set of words that best describes how you feel about your life in general.

Boring	1	2	3	4	5	6	7	8	9	Interesting
Enjoyable	1	2	3	4	5	6	7	8	9	Miserable
Useless	1	2	3	4	5	6	7	8	9	Worthwhile
Friendly	1	2	3	4	5	6	7	8	9	Lonely
Full	1	2	3	4	5	6	7	8	9	Empty
Discouraging	1	2	3	4	5	6	7	8	9	Hopeful
Tied down	1	2	3	4	5	6	7	8	9	Free
Disappointing	1	2	3	4	5	6	7	8	9	Rewarding

## REFERENCE

- Aldag, R., & Brief, A. (1975). Some correlates of work values. *Journal of Applied Psychology*, 60: 757-760.
- Amato, P. R., & Keith, B. (1991). Parental divorce and the well-being of children: A meta-analysis. *Psychological Bulletin*, 110: 26-46.
- Arslan, M. (2000). A cross-cultural comparison of British and Turkish managers in terms of protestant work ethic characteristics. *Business Ethics: A European Review*, 9: 13-19.
- Aryee, S., & Luk, V. (1996). Work and nonwork influences on the career satisfaction of dual-earner couples. *Journal of Vocational Behavior*, 49: 38-52.
- Autio, E., Pathak, S., & Wennberg, K. (2013). Consequences of cultural practices for entrepreneurial behaviors. *Journal of International Business Studies*, 44: 334-362.
- Arvey, R. D., Harpaz, I., & Liao, H. (2004). Work centrality and post-award work behavior of lottery winners. *Journal of Psychology*, 138: 404-420.
- Avolio, B. J., & Waldman, D. A. (1990). An examination of age and cognitive test performance across job complexity and occupational types. *Journal of Applied Psychology*, 75: 43-50.
- Bal, P. M., & Kooij, D. (2011). The relations between work centrality, psychological contracts, and job attitudes: The influence of age. *European Journal of Work and Organizational Psychology*, 20: 497-523.
- Bielby, D. D. (1992). Commitment to work and family. *Annual Review of Sociology*, 18: 281-302.
- Blood, M. (1969). Work values and job satisfaction. *Journal of Applied Psychology*, 53: 456-459.

Bond, M. H. (2013). A general model for explaining situational influence on individual social behavior: Refining Lewin's formula. *Asian Journal of Social Psychology*, 16: 1-15.

Bond, M. H., Leung, K., Au, A., Tong, K-K., de Carrasquel, S. R., Murakami, F., & other 63 coauthors. (2004). Culture-level dimensions of social axioms and their correlates across 41 cultures. *Journal of Cross-cultural Psychology*, 35: 548-570.

Bond, M. H., & Lun, M-C. (2014). Citizen-making: The role of national goals for socializing children. *Social Science Research*, 44: 75-85.

Bullough, A., Kroeck, K. G., Newburry, W., Kunda, S. K., & Lowe, K. B. (2012). Women's political leadership participation around the world: An institutional analysis. *The Leadership Quarterly*, 23: 398-411.

Cantor, N., & Sanderson, C. A. (1999). Life task participation and well-being: The importance of taking part in daily life. In: D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The Foundation of Hedonic Psychology* (pp. 230-243). NY: Russell Sage Foundation.

Carlson, D. S., & Kacmar, K. M. (2000). Work-family conflict in the organization: Do life role values make a difference? *Journal of Management*, 26: 1031-1054.

Carr, J. C., Boyar, S. L., & Gregory, B. T. (2008). The moderating effect of work-family centrality on work-family conflict, organizational attitudes, and turnover behavior. *Journal of Management*, 34: 244-262.

Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83: 234-246.

Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 14: 464-504.

- Cherrington, D. J. (1980). *The Work Ethic: Working Values and Values that Work*. NY: Amacom Books.
- Dean JR, J. W., & Snell, S. A. (1991). Integrated manufacturing and job design: Moderating effects of organizational inertia. *Academy of Management Journal*, 34: 776-804.
- Deci, E. L., & Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74: 580-590.
- Diefendorff, J. M., Brown, D. J., Kamin, A. M., & Lord, R. G. (2002). Examining the roles of job involvement and work centrality in predicting organizational citizenship behaviors and job performance. *Journal of Organizational Behavior*, 23: 93-108.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95: 542-575.
- Diener, E., Larsen, R. J., & Emmons, R. A. (1984). Person x situation interactions: Choice of situations and congruence response models. *Journal of Personality and Social Psychology*, 47: 580-592.
- Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002). Dispositional affect and job outcomes. *Social Indicators Research*, 59: 229-259.
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, 54: 403-425.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125: 276-302.
- Dubin, R. (1956). Industrial workers' worlds: A study of the "central life interests" of industrial workers. *Social Problems*, 3: 131-142.

Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25: 178-199.

England, G. W., & Misumi, J. (1986). Work centrality in Japan and the United States. *Journal of Cross-cultural Psychology*, 17: 399-416.

Friedman, H. S., Kern, M. L., & Reynolds, C. A. (2010). Personality and health, subjective well-being, and longevity. *Journal of Personality*, 78, 179-216.

Furnham, A. (1984). The protestant work ethic: A review of the psychological literature. *European Journal of Social Psychology*, 14: 87-104.

Furnham, A. (1990). *The Protestant Work Ethic: The Psychology of Work-related Beliefs and Behaviors*. London: Routledge.

Furnham, A., Bond, M. H., Heaven, P., Hilton, D., Lobel, T., Masters, J., & the other three coauthors. (1993). A comparison of protestant work ethic beliefs in thirteen nations. *The Journal of Social Psychology*, 133: 185-197.

Ganster, D. C., & Fusilier, M. R. (1989). Control in the workplace. In: C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology 1989* (pp. 235-280). Chichester, England: Wiley.

Gardner, D. G., Cummings, L. L., Dunham, R. B., & Pierce, J. L. (1998). Single-item versus multiple-item measurement scales: An empirical comparison. *Education and Psychological Measurement*, 58: 898-915.

Gentry, W. A., Weber, T. J., & Sadri, G. (2008). Examining career-related mentoring and managerial performance across cultures: A multilevel analysis. *Journal of Vocational Behavior*, 72: 241-253.

Gerhart, B. (1988). Sources of variance in incumbent perceptions of job complexity. *Journal of Applied Psychology*, 73: 154-162.

- Goldman, R. (1973). Managerial mobility motivations and central life interests. *American Sociological Review*, 38: 119-126.
- Greenberg, J. (1977). The protestant work ethic and reaction to negative performance evaluations on a laboratory task. *Journal of Applied Psychology*, 62: 682-690.
- Greenberger, D. B., & Strasser, S. (1986). Development and application of a model of personal control in organizations. *Academy of Management Review*, 11: 164-177.
- Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work-family balance and quality of life. *Journal of Vocational Behavior*, 63: 510-531.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60: 159-170.
- Harpaz, I., & Fu, X. (1997). Work centrality in Germany, Israel, Japan, and the United States. *Cross-cultural Research*, 31: 171-200.
- Harpaz, I., & Snir, R. (2003). Workaholism: Its definition and nature. *Human Relations*, 56: 291-319.
- Headey, B., & Wearing, A. (1992). *Understanding Happiness: A theory of Subjective Well-being*. Melbourne: Longman Cheshire.
- Hirschfeld, R. R., & Field, H. S. (2000). Work centrality and work alienation: Distinct aspects of a general commitment to work. *Journal of Organizational Behavior*, 21: 789-800.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations* (Second Edition). Thousand Oaks, CA: Sage.
- Hofstede, G., & Bond, M. H. (1988). The Confucius connection: From cultural roots to economic growth. *Organizational Dynamics*, 16: 4-21.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind* (Third Edition). New York: McGraw-Hill.

- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. London: Sage.
- Huang, J. L., Chiaburu, D. S., Zhang, X., Li, N., & Grandey, A. A. (2015). Rising to the challenge: Deep acting is more beneficial when tasks are appraised as challenging. *Journal of Applied Psychology*, 100: 1398-1408.
- Huang, X., & Van de Vliert, E. (2002). Intrinsic job rewards at country-level and individual-level codetermine job satisfaction. *Journal of International Business Studies*, 33: 385-394.
- Huang, X., & Van de Vliert, E. (2003). Where intrinsic job satisfaction fails to work: national moderators of intrinsic motivation. *Journal of Organizational Behavior*, 24, 159-179.
- Hunter, J. E., Schmidt, F. L., & Judiesch, M. K. (1990). Individual differences in output variability as a function of job complexity. *Journal of Applied Psychology*, 75: 28-42.
- Inglehart, R. (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton, NJ: Princeton University Press.
- Inglehart, R., & Oyserman, D. (2004). Individualism, autonomy, and self-expression: The human development syndrome. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparative Cultures: Dimensions of Culture in a Comparative Perspective* (pp. 74-96). Leiden, The Netherlands: Brill.
- Javidan, M. (2004). Performance orientation. In: R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman, & V. Gupta (Eds), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 239-281). London: Sage.
- Jing, Y., & Bond, M. H. (2015). Sources for trusting most people: How national goals for socializing children promote the contributions made by trust of the in-group and the out-group to non-specific trust. *Journal of Cross-cultural Psychology*, 46: 191-210.

Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology*, 90: 257-268.

Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85: 237-249.

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83: 17-34.

Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology*, 78: 939-948.

Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67: 341-349.

Kasser, T. (1996). Aspirations and well-being in a prison setting. *Journal of Applied Social Psychology*, 26, 1367-1377.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Differential correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410-422.

Kidron, A. (1978). Work values and organizational commitment. *Academy of Management Journal*, 21: 239-247.

Kostek, J. A. (2012). *Work Centrality: A Meta-analysis of the Nomological Network* (Master's thesis, Bowling Green State University). Retrieved from <https://etd.ohiolink.edu/>

Kwon, S., & Schafer, M. H. (2012). How did work attitudes change in reform-era China? Age, period, and cohort effects on work centrality. *Sociological Perspectives*, 55: 557-581.



- Lehnart, J., Neyer, F., & Eccles, J. (2010). Long-term effects of social investment: The case of partnering in young adulthood. *Journal of Personality*, 78: 639-669.
- Leong, F. T. L., & Huang, J. L., & Mak, S. (2014). Protestant work ethic, Confucian values, and work-related attitudes in Singapore. *Journal of Career Assessment*, 22: 304-316.
- Lodi-Smith, J., & Roberts, B. W. (2007). Social investment and personality: A meta-analysis of the relationship of personality traits to investment in work, family, religion, and volunteerism. *Personality and Social Psychology Review*, 11, 68-86.
- Loscocco, K. A., & Kalleberg, A. L. (1988). Age and the meaning of work in the United States and Japan. *Social Forces*, 67: 337-356.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803-855.
- Lun, M-C., & Bond, M. H. (in press). Achieving subjective well-being around the world: The moderating influence of gender, age and national goals for socializing children. *Journal of Happiness Studies*.
- Maccoby, E. E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology*, 28: 1006-1017.
- Man, D. C., & Lam, S. S. K. (2003). The effects of job complexity and autonomy on cohesiveness in collectivistic and individualistic work groups: A cross-cultural analysis. *Journal of Organizational Behavior*, 24: 979-1001.
- Mannheim, B. F. (1975). A comparative study of work centrality, job rewards and satisfaction: Occupational groups in Israel. *Sociology of Work and Occupations*, 2: 79-102.
- Mannheim, B. F. (1993). Gender and the effects of demographics, status, and work values on work centrality. *Work and Occupations*, 20: 3-22.
- Mannheim, B. F., & Angel, O. (1986). Pay systems and work-role centrality of industrial workers. *Personnel Psychology*, 39: 359-377.

Mannheim, B. F., Baruch, Y., & Tal, J. (1997). Alternative models for antecedents and outcomes of work centrality and job satisfaction of high-tech personnel. *Human Relations*, 50: 1537-1562.

Mannheim, B. F., & Dubin, R. (1986). Work role centrality of industrial workers as related to organizational conditions, task autonomy, managerial orientations and personal characteristics. *Journal of Organizational Behavior*, 7: 107-124.

Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review*, 42: 921-936.

McClelland, D. C. (1961). *The Achieving Society*. Princeton, NJ: Van Nostrand.

Merrens, M., & Garrett, J. (1975). The protestant ethic scale as a predictor of repetitive work performance. *Journal of Applied Psychology*, 60: 125-127.

Merz, E., & Huxhold, O. (2010). Well-being depends on social relationship characteristics: Comparing different types and providers of support to older adults. *Aging and Society*, 30: 843-857.

Meyer, R. D., Dalal, R. S., & Hermida, R. (2010). A review and synthesis of situational strength in the organizational sciences. *Journal of Management*, 36: 121-140.

Milfont, T. L., & Fischer, R. (2010). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological Research*, 3: 88-96.

Miller, M., Woehr, D. J., & Hudspeth, N. (2001). The meaning and measurement of work ethic: Construction and initial validation of a multidimensional inventory. *Journal of Vocational Behavior*, 59: 1-39.

Minkov, M., & Blagoev, V. (2009). Cultural values predict subsequent economic growth. *International Journal of Cross Cultural Management*, 9: 5-24.

- Mirels, H. L., & Garrett, J. B. (1971). The protestant ethics as a personality variable. *Journal of Consulting and Clinical Psychology*, 36: 40-44.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91: 1321-1339.
- Morse, N. C., & Weiss, R. S. (1955). The function and meaning of work and the job. *American Sociological Review*, 20: 191-198.
- MOW [Meaning of Working] International Research Team. (1987). *The Meaning of Working*. London, England: Academic Press.
- Mowday, R. T., & Sutton, R. I. (1993). Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44: 195-229.
- Oishi, S. (2012). *The Psychological Wealth of Nations: Do Happy People Make a Happy Society?* Malden, MA: Wiley-Blackwell.
- 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.
- Oldham, G. R., Kulik, C. T., & Stepina, L. P. (1991). Physical environment and employee reactions: Effects of stimulus-screening skills and job complexity. *Academy of Management Journal*, 34: 929-938.
- Parboteeah, P., & Cullen, J. B. (2003). Social institutions and work centrality: Explorations beyond national culture. *Organization Science*, 14: 137-148.
- Paullay, I. M., Alliger, G. M., & Stone-Romero, E. F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology*, 79: 224-228.

Pelham, B. W., & Swann Jr, W. B. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology*, 57: 672-680.

Pomerantz, E. M., Saxon, J. L., & Oishi, S. (2000). The psychological trade-offs of goal investment. *Journal of Personality and Social Psychology*, 79: 617-630.

Priller, E., & Schupp, J. (2011). Social and economic characteristic of financial and blood donors in Germany. *DIW Economic Bulletin*, 6: 23-30.

Quinn, R. P., & Shepard, L. J. (1974). *Quality of Employment Survey*. Ann Arbor, MI: Institute for Social Research.

Reker, G. T. (2000). Theoretical perspective, dimensions and measurement of existential meaning. In: G. T. Reker, & K. Chamberlain (Eds.), *Exploring Existential Meaning: Optimizing Human Development across the Life Span* (pp. 39-55). Thousand Oaks, CA: Sage.

Roberts, B. W., Caspi, A., & Moffitt, T. E. (2003). Work experiences and personality development in young adulthood. *Journal of Personality and Social Psychology*, 84: 582-593.

Roberts, B. W., Walton, K., Bogg, T., & Caspi, A. (2006). De-investment in work and non-normative personality trait change in young adulthood. *European Journal of Personality*, 20: 461-474.

Roberts, B. W., & Wood, W. (2006). Personality development in the context of the neo-socioanalytic model of personality. In: D. Mroczek & T. Little (Eds.), *Handbook of Personality Development* (pp. 11-39). Mahwah, NJ: Lawrence Erlbaum Associates.

Roberts, B. W., Wood, W., & Lodi-Smith, J. (2005). Evaluating five factor theory and social investment perspectives on personality trait development. *Journal of Research in Personality*, 39: 166-184.

Rothbard, N. P., & Edwards, J. R. (2003). Investment in work and family roles: A test of identity and utilitarian motives. *Personnel Psychology*, 56: 699-729.

Ros, M., Schwartz, S. H., & Surkiss, S. (1999). Basic individual values, work values, and the meaning of work. *Applied Psychology: An International Review*, 48, 49-71.

Schaubroeck, J., Ganster, D. C., & Kemmerer, B. E. (1994). Job complexity, "type A" behavior, and cardiovascular disorder: A prospective study. *Academy of Management Journal*, 37: 426-439.

Schaubroeck, J., & Merritt, D. (1997). Divergent effects of job control on coping with work stressors: The key role of self-efficacy. *Academy of Management Journal*, 40: 738-754.

Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review*, 48, 23-47.

Schwartz, S. H. (2011). Values: Individual and cultural. In: S. M. Breugelmans, A. Chasiotis, & F. J. R. van de Vijver (Eds.), *Fundamental Questions in Cross-cultural Psychology* (pp. 463-493). Cambridge: Cambridge University Press.

Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations*, 50: 287-314.

Shalley, C. E., Gilson, L. L., & Blum, T. C. (2009). Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *Academy of Management Journal*, 52: 489-505.

Shaw, J. D., & Gupta, N. (2004). Job complexity, performance, and well-being: When does supplies-values fit matter? *Personnel Psychology*, 57, 847-879.

Sheldon, K. M., & Niemiec, C. P. (2006). It is not just the amount that counts: Balanced need satisfaction also affects well-being. *Journal of Personality and Social Psychology*, 91: 331-341.

Shin, N., Vaughn, B. E., Akers, V., Kim, M., Stevens, S., Krzysik, L., ... & Korth, B. (2011). Are happy children socially successfully? Testing a central premise of positive psychology in a sample of preschool children. *Journal of Positive Psychology*, 6: 355-367.

Siegel, A. L., & Ruh, R. A. (1973). Job involvement, participation in decision making, personal background and job behavior. *Organizational Behavior and Human Performance*, 9: 318-327.

Smith, P. B., Dugan, S., & Trompenaars, F. (1996). National culture and managerial values: A dimensional analysis across 43 nations. *Journal of Cross-cultural Psychology*, 27: 231-264.

Sparrow, P. R., & Davies, D. R. (1988). Effects of age, tenure, training, and job complexity on technical performance. *Psychology and Aging*, 3: 307-314.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39: 1005-1016.

Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., ... & Yu, S. (2002). Locus of control and well-being at work: How generalizable are Western findings? *Academy of Management Journal*, 45: 453-466.

Sturman, M. C., Shao, L., & Katz, J. H. (2012). The effects of culture on the curvilinear relationship between performance and turnover. *Journal of Applied Psychology*, 97: 46-62.

Suh, E. M., Diener, E., & Updegraff, J. A. (2008). From culture to priming conditions – Self-construal influences on life satisfaction judgments. *Journal of Cross-cultural Psychology*, 39: 3-15.

Thompson, C. A., & Prottas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of Occupational Health Psychology*, 11: 100-118.

Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45: 1137-1148.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92: 1512-1523.

Van der Vegt, G., & Van de Vliert, E. (2000). Team members' affective responses to patterns of intragroup interdependence and job complexity. *Journal of Management*, 26: 633-655.

Vroom, V. H. (1964). *Work and Motivation*. San Francisco, CA: Jossey-Bass.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, 52: 129-148.

Wilk, S. L., & Sackett, P. R. (1996). Longitudinal analysis of ability - job complexity fit and job change. *Personnel Psychology*, 49: 937-967.

Williams, S., & Sandler, R. L. (1995). Work values and attitudes: Protestant and Confucian ethics as predictors of satisfaction and commitment. *Research and Practice in Human Resource Management*, 3: 1-13.

Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality*, 31: 21-33.

Xie, J., & Jones, G. (1995). Job scope and stress: Can job scope be too high? *Academy of Management Journal*, 38: 1288-1309.

Zacher, H., & Frese, M. (2011). Maintaining a focus on opportunities at work: The interplay between age, job complexity, and the use of selection, optimization, and compensation strategies. *Journal of Organizational Behavior*, 32: 291-318.

Zacher, H., Heusner, S., Schmitz, M., Zwierzanska, M. M., & Frese, M. (2010). Focus on opportunities as a mediator of the relationship between age, job complexity, and work performance. *Journal of Vocational Behavior*, 76: 374-386.