

The Value of Happiness in Entrepreneurship

The Value of Happiness in Entrepreneurship

De waarde van geluk in ondernemerschap

Thesis

to obtain the degree of Doctor from the
Erasmus University Rotterdam
by command of the
rector magnificus

Prof. dr. R.C.M.E. Engels

and in accordance with the decision of the Doctorate Board.

The public defence shall be held on
Thursday April 25, 2019 at 11:30 hrs

by

Fan Jia
born in Zhengzhou, China

Doctoral Committee

Doctoral dissertation supervisor: Prof. dr. D.L. van Knippenberg

Other members: Prof. dr. S.R. Giessner
Dr. A.J. van Stel
Prof. dr. A.W.A. Boot

Co-supervisor: Dr. Y. Zhang

Erasmus Research Institute of Management – ERIM

The joint research institute of the Rotterdam School of Management (RSM)
and the Erasmus School of Economics (ESE) at the Erasmus University Rotterdam
Internet: www.erim.eur.nl

ERIM Electronic Series Portal: repub.eur.nl/

ERIM PhD Series in Research in Management, 479

ERIM reference number: EPS-2019-ERIM Series EPS-2019-479-ORG

ISBN 978-90-5892-561-9

© 2019, Fan Jia

Design: PanArt, www.panart.nl

This publication (cover and interior) is printed by Tuijtel on recycled paper, BalanceSilk®

The ink used is produced from renewable resources and alcohol free fountain solution.

Certifications for the paper and the printing production process: Recycle, EU Ecolabel, FSC®, ISO14001.

More info: www.tuijtel.com

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means electronic

or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission

in writing from the author.



Table of Contents

Chapter 1: Introduction	1
<i>1.1 Research Purposes and Questions</i>	<i>3</i>
<i>1.2 The Significance of Studying Happiness in Entrepreneurship</i>	<i>6</i>
<i>1.3 Outline of the Dissertation</i>	<i>9</i>
<i>1.4 Declaration of Contributions</i>	<i>14</i>
 Chapter 2: Entrepreneurial Engagement: The Effect of Individual and Population Positive Affect	 17
<i>2.1 Introduction</i>	<i>17</i>
<i>2.2 Theory and Hypotheses</i>	<i>19</i>
<i>2.3 Methodology</i>	<i>23</i>
<i>2.4 Results</i>	<i>27</i>
<i>2.5 Discussion</i>	<i>29</i>
 Chapter 3: The Value of a Happy Population for Relative Engagement in Vertical-scaling and Horizontal-scaling Entrepreneurship	 35
<i>3.1 Introduction</i>	<i>35</i>
<i>3.2 Theory and Hypotheses</i>	<i>38</i>
<i>3.3 Methodology</i>	<i>46</i>
<i>3.4 Results</i>	<i>55</i>
<i>3.5 Discussion and Conclusions</i>	<i>62</i>
 Chapter 4: The Impact of Positive Affect on Entrepreneurial Motivational Outcomes – A Self-regulatory Perspective	 17
<i>4.1 Introduction</i>	<i>17</i>
<i>4.2 Theory and Hypotheses</i>	<i>22</i>
<i>4.3 Methodology</i>	<i>32</i>
<i>4.4 Results</i>	<i>37</i>
<i>4.5 Discussion and Conclusions</i>	<i>44</i>
 Chapter 5: Positive Affect, Positive Evaluation, or Positive Functioning? Bringing Positive Psychology into the Dialog of Effectuation.....	 109

5.1 Introduction109

5.2 Theory and Hypotheses Development.....112

5.3 Methodology123

5.4 Results.....129

5.5 Discussion.....133

Chapter 6: Discussion49

6.1 Empirical Results, Theoretical and Practical implications50

6.2 Limitations and Future Research.....56

6.3 Conclusive Remarks58

References61

Summary83

Samenvatting87

About the Author181

Portfolio.....183

The ERIM PhD Series91

List of Tables

Table 1.1 Overview of the four empirical studies.....	10
Table 2.1 Summary statistics and correlations	28
Table 2.2 Multilevel logistic regressions on the likelihood of entrepreneurial engagement.....	30
Table 3.1 Dependent, independent, and control variables.....	67
Table 3.2 Ordinal measurement of entrepreneurship engagement	69
Table 3.3 Descriptive statistics for individual-level categorical variables	70
Table 3.4 Descriptive statistics for country-level variables by development stage	71
Table 3.5 Means, standard deviations, and correlations	73
Table 3.6 Generalized ordered logit models explaining relative engagement levels in vertical-scaling and horizontal-scaling entrepreneurship	74
Table 3.7 Marginal effects of country happiness level and happiness Inequality on relative engagement of vertical-scaling and horizontal- scaling entrepreneurship	75
Table 4.1 Summary statistics and correlations.....	96
Table 4.2 Effects of Positive Affect and Environmental Uncertainty on Entrepreneurial Orientation and Entrepreneurial Effort.....	99
Table 4.3 Effects of Positive Affect and Environmental Uncertainty on Entrepreneurial Persistence.....	100
Table 4.4 Marginal effects of positive affect on entrepreneurial orientation and persistence	101
Table 5.1 Means, standard deviations, and correlations	130
Table 5.2 The effect of positive psychology on the level of effectuation employment	132

List of Figures

Figure 1.1 The integrative framework: connecting happiness and entrepreneurship.....	6
Figure 1.2 An action phase model of the entrepreneurial behavioral process.....	12
Figure 2.1 The moderating effect of population positive affect on the relationship between individual positive affect and entrepreneurial engagement.....	31
Figure 4.1 The moderating effect of environmental uncertainty on the relationship between positive affect and entrepreneurial orientation.....	102
Figure 4.2 The moderating effect of environmental uncertainty on the relationship between positive affect and entrepreneurial persistence.....	103

1

Introduction

Over the last 30 or so years, especially after the birth and development of high-tech tools and sectors, entrepreneurship has become a buzzword. Currently, more than half a billion people worldwide are actively involved in setting up new businesses or are owner-managers of a new business¹. Start-ups generate new employment opportunities and create innovations that transform our lives and renew worldwide economies. This seems to be the entrepreneurial age, and also a perfect time to study and practice entrepreneurship.

However, the entrepreneurial reality is not always that positive and optimistic. First, although many individuals have conceived an idea for starting a new business or have taken action toward implementing the idea, many fail to take the next step forward or simply abandon their start-ups during the gestation period (Reynolds, 2000; Van Gelderen, Kautonen, & Fink, 2015). Second, although entrepreneurial activity is increasing in many countries, sustainable entrepreneurship, represented by high innovation- and growth-orientated start-ups, still accounts for a small proportion of all entrepreneurial activities, especially in developing countries (Morris, 2012). Third, even for those start-ups that move beyond the nascent phase, less than half survive after five years, and survival also does not necessarily lead to success (income and independence). Bygrave and Zacharakis (2008) report an almost equal level of median income between small business owners and wage earners, and Freeman, Staudenmaier, Zisser, and Andresen (2018) describe entrepreneurs

¹ See the *Global Monitor Entrepreneurship* for detailed data and information (www.gemconsortium.org).

experiencing depression, bipolar disorder, and substance adoption more than the general population.

Therefore, we are far from clear in understanding entrepreneurial phenomena, especially about why some individuals endeavor to make consistent actions, why some seek to pursue high innovation- and growth-orientated entrepreneurial activities, and why some entrepreneurs tend to survive and others do not. Perhaps we can answer these questions by examining the quotes of self-successful as well as society-impactful entrepreneurs. First, entrepreneurs tend to indicate the importance of a positive feeling and attitude for their achievements. Richard Branson, the founder of Virgin Group, emphasizes the importance of enjoying the entrepreneurial process and being positive as the first principle of his five secrets to success, saying that "If you don't enjoy it, don't do it.....When I started Virgin from a basement in west London, there was no great plan or strategy."(Branson, 2013. P.9). Pierre Omidyar, the founder of eBay, believes his success lies in his positive attitude toward failure and anything new. Whenever a new idea came up to his mind, he thought, ".....well, gee, you know, why not. I'll just go ahead and do it." (Hisrich, Peters, & Shepherd, 2013, P.86).

Second, exceptional entrepreneurs also emphasize the value of fulfilling a mission beyond their own. Ewing Marion Kauffman, an American pharmaceutical entrepreneur, a philanthropist, and a Major League Baseball team owner, believes that the most important principle that guides his entire career and makes him impactful is "treating others like you would be treated" (Smilor & Sexton, 1996, P.39). Besides achieving returns for their own and their families, the value of contributing to others and society seems to be the key for sustainable and high-quality entrepreneurship. A positive emotion or attitude, and positive virtue are two forms of happiness from the hedonic and eudaimonic perspectives (Ryan & Deci, 2001), and happiness seems to be the key that triggers entrepreneurs to persevere under the stress and challenges of the entrepreneurial process.

Within the scientific field of entrepreneurship, increasing attention is also emerging toward various constructs related to happiness. Among the

studies, three streams of research stand out: Baron and colleagues' work on positive affect in entrepreneurship (e.g., Baron, 2008), Cardon and colleagues' work on entrepreneurial passion (e.g., Cardon, Wincent, Singh, & Drnovsek, 2009), and labor economists' work on the influence of self-employment in work and life satisfaction (e.g., Benz & Frey, 2003; Blanchflower, 2004). While the last stream mainly focuses on the impact of entrepreneurship on happiness, the first two streams are, by and large, consistent with the aim of the current thesis in exploring happiness as an exceptional resource for entrepreneurship. However, despite claims that positive affect bodes well for entrepreneurship, the scope of happiness in these studies is still circumscribed. For instance, positive affect is predominately focused on high-activated and intense forms such as the construct of entrepreneurial passion. Perhaps more importantly, other dimensions of happiness besides the emotional category tend to be ignored, and the level of happiness is limited at the individual level without considering the value of contextual happiness. Furthermore, there is a dearth of studies studying the role that happiness states play in the process of continuous entrepreneurship or in the formulation of an entrepreneurial mindset.

Given the significance of entrepreneurship to the individual and society and the potential important effect of happiness on entrepreneurship, much more progress needs to be made towards understanding the value of happiness in entrepreneurship.

1.1 Research Purposes and Questions

The overall purpose of this thesis is to explore whether, why and how happiness is connected to entrepreneurship—the value of happiness in entrepreneurship. Before connecting happiness to entrepreneurship, the scope of entrepreneurship in the present dissertation needs to be demarcated, considering that entrepreneurial phenomena have been conceptualized from a multitude of perspectives and dimensions. Invented in around the 1920s, the word “entrepreneurship” broadly refers to the phenomena linked with introducing new economic activity and leading to creative disruption for the economy (Landström, 2007; Schumpeter, 1934).

However, to better understand entrepreneurship as a phenomenon, the study of entrepreneurship in the scholarly domain, involves a more delineated range of topics and perspectives (Davidsson, 2009; Gartner, 1988; Venkataraman, 1997). From a market perspective, entrepreneurship represents a change disrupting the market. From a national-economic perspective, it is a critical force for production and job creation. From an organizational perspective, it relates to the dynamic process underlying the creation of new organizations and/or the strategic management of corporate innovation.

Regardless of the dynamics involved in the definition and practice of entrepreneurship, from an individual account, entrepreneurship is a behavioral and psychological process that is affected by various personal, sociological, and environmental factors. Hence, the current thesis primarily conceptualizes entrepreneurship as an individual (psychological and socially dependent) phenomenon, which encompasses sets of emotions, cognitions, motivations, and actions that unfold over time aimed at creating new economic or social activity. We regard the individual entrepreneur as the prime agent as well as the end of the entrepreneurial process, rather than the organization, market or economy, in facilitating subsequent exploration of the effect of happiness on entrepreneurship.

Conceptualizing entrepreneurship as an individual-based phenomenon is not new. Baumol (1968, p. 67) noted that, “Trying to understand entrepreneurship without the entrepreneur is like trying to understand Shakespeare without Hamlet”. However, early research in entrepreneurship sought to identify entrepreneurs with certain profiles (e.g., Gaglio & Katz, 2001; Kirzner, 1978; Low & MacMillan, 1988), and failed to come to any consistent results (Brockhaus & Horwitz, 1986; Davidsson, 2005). There might be two crucial reasons why the person-centric approach was not productive. First, previous research tended to overlook the non-linear and dynamic nature of entrepreneurship, so that it is unlikely that one factor influences different phases of entrepreneurship to the same extent (Carroll & Mosakowski, 1987). Second, entrepreneurship was studied as a behavioral phenomenon rather than a

psychological phenomenon, and thus the influence of psychological theory in explaining entrepreneurship was severely understudied.

Therefore, I decouple the individual entrepreneurship as a behavioral process and a cognitive mindset and seek to convey the value of happiness for each dimension respectively. For the behavioral process, I focus on the motivational and volitional effect of happiness on entrepreneurial action enacted on different phases of the new business creation process, based on Heckhausen and Gollwitzer's (1987) Rubicon model of action phases. For the cognitive mindset, I examine the effect of happiness on effectuation, an important theoretical construct of entrepreneurship in explaining and representing the entrepreneurial mindset.

Specifically, I deal with the following research questions:

1) How does happiness affect entrepreneurial engagement (in terms of activating individuals to be entrepreneurial, activating them to higher quality levels of entrepreneurship, and activating them to grow and persist in entrepreneurship)?

2) How does happiness affect effectuation, particularly each specific principle of effectuation?

Moreover, as I argued above, extant research in the “happy entrepreneurship” dialog takes a narrow perspective in studying happiness. Hence, the present thesis seeks to conceptualize a theoretical framework of happiness with three distinct unit dimensions (positive affect, positive evaluation, and positive functioning) and two unit levels (individual happiness and the macro-level of population happiness), which will be described in more detail in the next section about the importance of considering happiness in entrepreneurship. Therefore, the dissertation also seeks to answer the following two additional questions (See Figure 1.1 for the overall framework in connecting happiness and entrepreneurship).

3) Does happiness have different meanings, and how and to what extent does each dimension of happiness relate to entrepreneurship?

4) *What is the value of population happiness in entrepreneurship beyond that of individual happiness?*

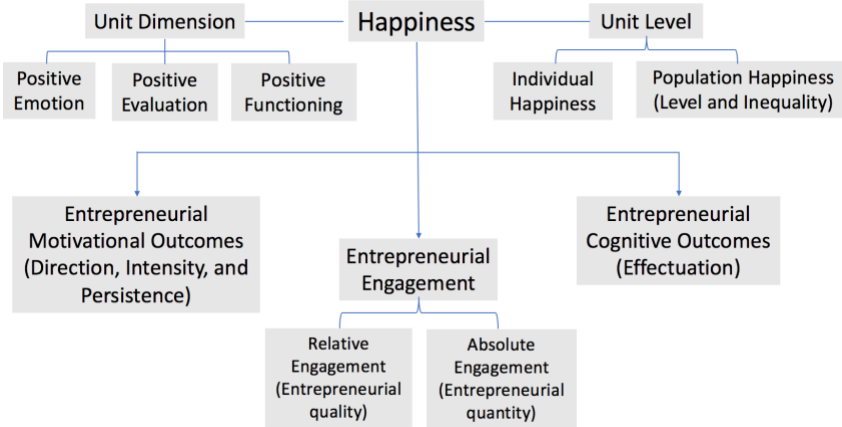


Figure 1.1 The integrative framework: connecting happiness and entrepreneurship

1.2 The Significance of Studying Happiness in Entrepreneurship

There are good reasons why studying happiness has become a hot topic for entrepreneurship scholars. Conceptualizing entrepreneurship as an individual and psychological phenomenon, the thesis offers three reasons for the importance of studying happiness in entrepreneurship.

First, happiness is important in entrepreneurship because new evidence indicates that individuals strive for a positive affective experience when engaging and persisting in entrepreneurship (e.g., Kato & Wiklund, 2011; Shir, 2015). By developing and adopting a series of theoretical frameworks (the self-organizational approach, the action phase approach, and the life goal and motive approach), Shir (2015) uncovered the payoff structure of new business creation in terms of happiness and well-being, stating that entrepreneurs obtain a greater level of positive affect and experience even though the returns in earnings are not relatively

high compared with other career options (Hamilton, 2000). Kato and Wiklund (2011) used a qualitative analysis with multiple-cases of entrepreneurs' diary blogs and found that entrepreneurs tend to seek positive feedback and recognition for balancing their happiness level, and that those who intentionally seek positive experience survive the entrepreneurial process. Such findings shed light on the fact that happiness might not only be nurtured and enhanced by entrepreneurship, but that its level could also be the driver for entrepreneurial engagement. Hence, the next step to move this dialog ahead is to investigate whether individuals' positive affect indeed pushes entrepreneurship forward, helping them to engage and persist in the entrepreneurial process.

Second, happiness is significant in entrepreneurship because of its multi-dimensional nature. In contrast to the pure pleasure-based happiness (positive affect), the desire-based happiness is actually a cognitive construct of positive evaluation, a matter of getting what you want and assessing how your desires are satisfied (Griffin, 1986), though it still originates from hedonic account and subjective happiness theory (see Weiss, 2002 for a strong critical stance on the difference between the emotional and cognitive dimensions of happiness). In entrepreneurship, these two dimensions of happiness are studied biasedly with positive affect mainly examined as an antecedent of entrepreneurship by management scholars (e.g., Baron & Tang, 2011; Baron, Hmieleski, & Henry, 2012; Foo, Uy, & Baron, 2009) and positive evaluation investigated as consequence or return of entrepreneurship by labor economists (e.g., Benz & Frey, 2003; Blanchflower, 2004). Considering that dissatisfaction is also a source of entrepreneurial entry (Guerra & Patuelli, 2016), and cognitive structure is an important factor of expert entrepreneurship (Haynie Shepherd, Mosakowski, & Earley 2010), we believe it is significant to also explore the role of the positive evaluation dimension of happiness in driving entrepreneurship.

Two thousand years ago early philosophers proposed an eudaimonic perspective in defining happiness. Eudaimonic happiness is an objective state that fulfills a list of intellectual and moral virtues (Aristotle, 1985; Tatarkiewicz, 1976), besides being a subjective state of pleasure and

satisfaction. This account is also referred to as an “objective-list account” (Nussbaum, 1992; Sen, 1985), which lodges happiness onto a list of “truly valuable” things in the real world. We can explicitly see that this account differs from the first two dimensions, which is the result of their different ontological and ethical assumptions concerning happiness and the happy life. Briefly stated, the eudaimonic perspective of happiness mainly emphasizes external conditions rather than internal conditions (e.g. having concrete career accomplishments vs. being satisfied with your career), having these evaluated by informants or society rather than internally evaluated by the individual, and finally having the content of the conditions designated as the objective moral virtues recognized by the community or society rather than left open for the individual or the researcher. The eudaimonic account of happiness was mainly progressed by sociologists and economists, in developing indexes such as the quality of life (Veenhoven, 1999), but the development has been relatively slow mainly due to the disputed recognition for what the objective list should include and how to quantify the value of individual achievements. Modern psychologists, however, construct hybrid accounts that focus on the psychological standards and processes to progress eudaimonic happiness. Under these hybrid accounts, happiness is studied as a positive functioning state, and has a less subjective character in that objective happiness-variables are specified by the researchers first and self-ascribed by the subjects to gauge the level of their happiness. Two notable efforts of these accounts are Ryff and Singer’s (1996) concept of psychological well-being and Ryan and Deci’s (2000) self-determination theory. Considering that a positive functioning state is linked with tremendous benefits (e.g., Hahn, Frese, Binnewies, & Schmitt, 2012; Keyes, 2010), it is also essential in studying the role of positive functioning in entrepreneurship. In the end, the multi-dimensional nature of happiness is important in the sense that investigating each dimension separately might result in biased results. Entrepreneurs might sacrifice certain components of happiness for other components of happiness to achieve relevant goals within the entrepreneurial process. Thus, it is crucial to collectively consider the three

dimensions of happiness under one framework and to investigate their differential effects on entrepreneurship.

Third, happiness is also important when studied in different unit levels, thus pertinent to different types and levels of stakeholders in entrepreneurship: individual, corporate, and government. Apart from the entrepreneurs' happiness, the happiness of other stakeholders around entrepreneurs might also influence the external context, which in turn can have a profound effect on entrepreneurs' internal decisions. Moreover, macro-happiness is associated with the level of a series of local conditions and environments, such as trust, freedom of choice, corruption, and social support (Bok, 2010; Diener et al., 2009), all of which are all critical for entrepreneurship engagement. Empirical evidence has indicated a positive relationship between country happiness and entrepreneurship (Naude, Amorós, & Cristi, 2014). This is also consistent with the call that entrepreneurship research needs to pay more attention to institutional and cultural determinants (Dheer, 2017; Hoskisson, Covin, Volberda, & Johnson, 2011). Another merit of studying macro-happiness is exploring the role of the happiness distribution in addition to the happiness level. Happiness inequality is increasingly emphasized by local government as an important indicator of social development. Last but not least, population happiness might also alter the effect of individual happiness on entrepreneurship, thus playing an important moderating role.

1.3 Outline of the Dissertation

The current dissertation comprises four empirical studies that aim to investigate the effect of happiness on entrepreneurship as a behavioral process (Study 1, Study 2, and Study 3) and as a cognitive mindset (Study 4). The overview of the four studies is depicted in Table 1.1.

Table 1.1 Overview of the four empirical studies

Chapter	Study Design	Observations	Happiness Dimension	Happiness Level	Entrepreneurial Outcomes	Entrepreneurial Action Phase
2	Cross-sectional (two time points)	5732	Positive Affect	Individual & Population	Entrepreneurial Absolute Engagement	Actional Phase (Non-engagment vs engagment)
3	Longitudinal	71964	Positive Affect	Population	Entrepreneurial Relative Engagement	Actional Phase (Engagement levels within entrepreneurship)
4	Cross-sectional (two time points)	1237; 868	Positive Affect	Individual	Entrepreneurial Orientation, Entrepreneurial Effort, & Entrepreneurial Persistence	Post-actional Phase
5	Cross-sectional (two time points)	110	Positive Affect, Positive Evaluation, & Positive Functioning	Individual	Effectuation Mindset Employment	Exist in each Phase

Study 1 (Chapter 2) explores the role of positive affect in motivating individuals to become entrepreneurial through the lens of self-regulation, and examines how it is influenced when the individual resides in a population with high compared to lower positive affect. Employing a nationally representative data of China (China Household Financial Survey), we empirically find that individual positive affect has a positive influence on individuals' likelihood of engaging in entrepreneurship beyond the nascent phase, and this effect is most pronounced when the individuals are within a positive environment (higher level of population positive affect).

Study 2 (Chapter 3) examines the impact of a country's population happiness (positive affect) on the level² of entrepreneurship engagement that individual entrepreneurs in that country pursue from a macro-economic perspective of contextual demand and supply theory, occupational choice theory, and distribution theory. Entrepreneurship engagement is measured along two dimensions: horizontal-scaling (expansion-focused) and vertical-scaling (innovation-focused) entrepreneurship. By using an integrative dataset incorporating multi-country and individual-level data over the period 2007-2013, the study proposes and tests the differential effects of population happiness on the relative engagement of these two entrepreneurship dimensions, and finds a positive effect of country happiness on the innovation-focused dimension of entrepreneurship engagement, but a negative effect on the expansion-focused dimension.

Study 3 (Chapter 4) explores the effect of happiness on entrepreneurs' motivational actions after initial entrepreneurial entry. Drawing on a self-regulatory perspective, the study emphasizes the key role of positive affect in influencing three motivational behaviors regarding entrepreneurial engagement: direction (intrinsic versus extrinsic orientation), intensity (amount of entrepreneurial effort), and persistence (likelihood of entrepreneurial persistence). The study also proposes that environmental

² To note, the level of entrepreneurship engagement here indicates the quality of entrepreneurship. The term might denote different meanings in other studies. For instance, Van der Zwan & Thurik (2017) employed the engagement levels as the stages or phases over the entrepreneurial process.

uncertainty moderates the relationship between positive affect and entrepreneurial motivations. The hypotheses are tested empirically by using a data sample of entrepreneurs from China Household Financial Survey (CHFS).

Study 4 (Chapter 5) extends the concept of happiness by highlighting positive evaluation and positive functioning besides positive affect, and integrates research on positive psychology and effectuation, a concept representative of the entrepreneurial mind (e.g., Read & Sarasvathy, 2005; Sarasvathy, 2008). Based on hedonic theory, desire theory, and eudaimonic theory, the study posits that three positive factors within positive psychology, positive affect, positive evaluation, and positive functioning, when considered collectively, might have significant differential effects on the levels of the four principles of effectuation individuals adopt. The hypotheses are tested using survey data from a sample of CEOs in China.

The dissertation concludes with a discussion in Chapter 6, in which I review the major empirical findings in the four studies and further reflect on the theoretical and practical implications of this dissertation. I also point out the limitations of these studies and suggest a variety of possible avenues for future research.

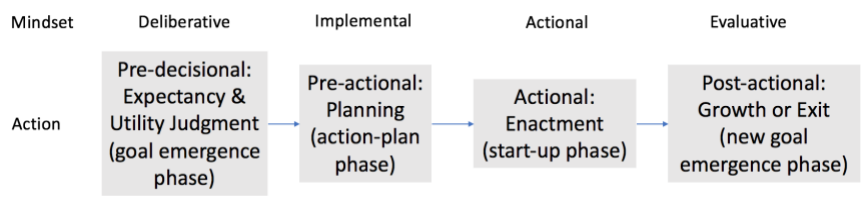


Figure 1.2 An action phase model of the entrepreneurial behavioral process

To highlight the contributions of this thesis, I further summarize the four empirical studies here. First, integrating Study 1, 2, and 3, the thesis delineates the perennial role of happiness in the entrepreneurial behavioral process. While previous studies tend to emphasize the role of positive affect in promoting individuals into the pre-decisional or pre-actional

phase of entrepreneurship (e.g., Bernoster, Mukerjee, & Thurik, 2018; Hayton & Cholakova, 2012), the current dissertation examines how happiness can trigger and initiate entrepreneurial action, moving individuals into the actional phase (start-up period) and post-actional phase (persistence and growth period) of entrepreneurship (see Figure 1.2)³. Study 1 emphasizes the value of happiness in driving individuals into this actional phase of entrepreneurship (absolute engagement of entrepreneurship instead of other career routes). Study 2 focuses on the influence of happiness in entrepreneurs' relative entrepreneurial engagement (the relative position entrepreneurs pursue over the quality of the entrepreneurship spectrum) in the actional phase of entrepreneurship. While population positive affect does not directly influence individuals' absolute entrepreneurial engagement, it directly influences entrepreneurs' high-quality (high growth-orientated) entrepreneurial engagement (relative engagement). Study 3 focuses on the post-actional phase of entrepreneurship, and positive affect is found to be an important factor for entrepreneurial growth, promoting entrepreneurs' preference of intrinsic orientation versus extrinsic orientation, and increasing the likelihood of entrepreneurial persistence.

Second, the thesis also emphasizes the importance of happiness for entrepreneurial cognitive process and outcomes, beyond the behavioral angle. While several theories have explored what is unique and functional in entrepreneurs' minds, such as effectuation (Saravasthy, 2001), bricolage (Baker & Nelson, 2005), and cognitive adaptability (Haynie et al., 2010), the next step is to establish more causality in the relevant model. Study 4 investigates how possessing a positive mental state can affect individuals' effectuation adoption, pertinent to the formulation of an entrepreneurial mindset that goes beyond mere venture creation. In

³ Drawing from Gollwitzer (1990), Heckhausen & Gollwitzer (1987, and Shir (2015), we outline an entrepreneurial action phase model, depicted in Figure 1.2, to facilitate the exploration of the value of happiness in entrepreneurship. The model depicts entrepreneurship as a dynamic goal-directed and self-regulated process encompassing four distinct phases, each distinguished by a distinctive set of actions and mindsets, which might be influenced by different components or/and levels of happiness differently.

addition, it also examines the distinct components of happiness beyond positive affect studied in previous studies, and demonstrates and compares their differential effects on entrepreneurship.

The thesis is also consistent with Schneider's (1987) attraction-selection-attrition model, which identifies the process of how psychological factors can affect work design and composition. More specifically, individuals' psychological characters can influence the types and levels of careers they pursue, their likelihood of being selected into them, and how long they persist in them. The current thesis focuses on the construct of happiness and the field of entrepreneurship. First, individuals are attracted into different types and levels of entrepreneurial reasoning under the influence of their happiness levels. Second, individual as well as population happiness also affect the individuals' likelihood of being selected into entrepreneurship, and, even more importantly, into different quality levels of entrepreneurship. Third, happiness levels also influence how long entrepreneurs persist in the start-up process.

1.4 Declaration of Contributions

The author has independently completed the majority of the work in this dissertation. Nonetheless, the dissertation would never have been accomplished without the contribution of co-authors and other stakeholders. I hereby declare my contribution to each of the six chapters in this dissertation and mention the contributions of others where relevant.

Chapter 1: This chapter was written independently by the author of this dissertation.

Chapter 2: The author independently conducted the majority of the work in this chapter, including formulating the research questions, identifying the theoretical relevance, conducting the data analysis, and writing the manuscript. The source of the data is the CHFS project, which is a biennial national survey representative of financial and entrepreneurial information in China. The author participated in the data collection of CHFS 2013 in the city of Xiaogan, and had access to the complete CHFS 2011 and 2013 data with the support of Prof. Yin Zhichao. Dr. André van Stel provided useful feedback and support for this chapter.

Chapter 3: This chapter was written by the author in collaboration with Dr. Ying Zhang and Dr. André van Stel. Inspired by Dr. Ying Zhang, the author initiated the research idea of this work. The author then independently performed the literature review, collected the longitudinal data, analyzed the data, consolidated all relevant results, and wrote the chapter. The chapter was improved with the insightful feedback provided by the two co-authors along the process, and with immense support from Dr. André van Stel over the phase of data analysis.

Chapter 4: This chapter was written by the author in collaboration with Dr. Ying Zhang, and has been published in the journal of *International Review of Entrepreneurship* (Jia & Zhang, 2018). Supported by the co-author, the author independently formulated the research questions, developed the theoretical framework, designed the methodology, conducted the data analysis, interpreted the findings, and drafted the manuscript. Like in Chapter 2, the data in this chapter also comes from the CHFS project. Dr. André van Stel provided support during the final revision of the manuscript, and I also appreciate the valuable feedback from Prof. Daan Van Knippenberg for improving the paper.

Chapter 5: This chapter was written by the author in collaboration with Dr. Ying Zhang and Prof. Daan Van Knippenberg. Although I did the majority of the work for this chapter, Dr. Ying Zhang helped me to formulate the research questions, and Prof. Daan Van Knippenberg provided detailed and valuable feedback in building the theoretical anchor and organizing the chapter structure.

Chapter 6: This chapter was written independently by the author of this dissertation.

The Impact of Positive Affect on Entrepreneurial Motivational Outcomes – A Self-regulatory Perspective

4.1 Introduction

Positive affect, incorporating positive feelings and emotions, is increasingly recognized as a significant force in entrepreneurship. From reviewing and utilizing key theories, such as the affect-infusion model (Forgas, 1995) and the affect-as-information model (Schwarz, 2001), Baron (2008) proposes that positive affect experienced by individuals may influence several aspects of cognition and cognitive outcomes related to entrepreneurship. Such cognitive outcomes involve elements of entrepreneurial perceptions and decision-making, including attention, memory, creativity, and opportunity recognition. Later empirical studies have rapidly expanded this area of research in entrepreneurship (e.g. Baron & Tang, 2011; Brundin & Gustafsson, 2013; Byrne & Shepherd, 2015; Delgado-García et al., 2012; Foo et al., 2015; Hayward et al., 2010).

However, these efforts have largely ignored the role of positive affect in another important area within psychology—motivation, which is especially relevant to entrepreneurship, where individual actions such as venture creation are strongly in need of motivational support and explanation (O’Shea et al., 2017). Motivation, in its broadest sense, refers to a “psychological process that influences how personal effort and resources are allocated to actions pertaining to work, including the direction, intensity and persistence of these actions” (Kanfer, Chen, & Pritchard, 2008, p. 5). Moreover, extant studies tend to focus on the influence of positive affect in entrepreneurs’ identification of an opportunity, and on the initial stage of launching a new venture, but tend

to overlook the role of positive affect in the post-entry stage of the firm's life cycle.

Since entrepreneurs' emotions, cognitions, motivations, and actions (incorporating behavioral outcomes of motivations reflected largely in post-entry phases) are in fact closely interrelated and dependent on each other (O'Shea et al., 2017), it is important to study the relationship between positive affect and motivational outcomes in entrepreneurship. In this study, using a Chinese household survey data base, we investigate whether and how positive affect influences three major motivational outcomes of work motivation (cf. Kanfer, 1991; Locke & Latham, 1990) within the entrepreneurship area: direction, intensity, and persistence of entrepreneurial engagement after the initial entry into entrepreneurship (i.e. focusing on entrepreneurs that are actively involved in setting up a new business, but already received salaries, wages, or any other payments from this new business).

Direction refers to behavioral options, often measured as choice selection between mutually exclusive courses of action (Kanfer, 1991). Applied in entrepreneurship, it indicates the behavioral choice entrepreneurs make to realize their goals of venture creation and development. In this paper we focus on the entrepreneurs' choice of intrinsic-extrinsic orientation in pursuing entrepreneurship. We define intrinsic orientation as an orientation in pursuing entrepreneurship for internal "rewards", i.e. the satisfaction of the innovative and dynamic entrepreneurial process and experience per se, while extrinsically orientated entrepreneurial engagement is focused on earning external rewards generated from entrepreneurial activity, such as money (financial-success-driven), control and freedom (life-style-driven), or punishment avoidance such as pressure from survival (necessity-driven) or family and social environment (norms-driven). *Intensity*, often measured as task effort, denotes how hard a person works, and is the most frequently explored outcome of work motivation (cf. Staw, 1984). In this paper, we focus on the amount of entrepreneurial effort an entrepreneur commits to over the entrepreneurial engagement process. *Persistence* indicates a behavioral pattern of maintaining the initially chosen course of action over time

(Kanfer, 1991). It reflects the duration of action, and captures the longitudinal aspect of motivational outcomes that emerge over time. Reflected in entrepreneurship, persistence is, thus, about whether an entrepreneur changes the initially chosen behavior. In this paper, we define entrepreneurial persistence as whether the entrepreneur, over a period of time, maintains in entrepreneurial engagement or withdraws from the process.

Although the literature on the importance of positive affect for motivation and relevant motivational behaviors in entrepreneurship is scarce, some works deserve to be mentioned. Foo et al. (2009) find that positive affect predicts venture effort, but mainly related to future tasks which are not immediately required. This indicates that positive affect might have more influence on longer term goals and desires. Cardon & Kirk (2015) study the positive role of entrepreneurial passion, a strong and intense form of positive feelings associated with entrepreneurship, in entrepreneurial persistence. Hahn et al. (2012) examine the effect of life satisfaction and subjective vigor on task-oriented and relationship-oriented personal initiative in start-up actions, and find a positive function of vigor. Baron et al. (2012) also theorize the positive effect of dispositional positive affect on entrepreneurs' energy and optimism for taking actions.

However, these studies still bear deficiencies for further progressing the dialogue. First, although employing some affect-related theory, the studies lack overarching theoretical bases to connect positive affect and entrepreneurial motivational outcomes, going beyond specific variables such as entrepreneurial effort or entrepreneurial persistence. Second, little attention is paid to the interaction effect of positive affect with contextual or environmental factors on motivational outcomes. It is essential to explore this moderating role of the environment in order to get a more comprehensive picture of the relationship between positive affect and entrepreneurial motivations. Third, the definition of positive affect is sometimes questionable within these studies, which impedes the inference and generalization of their results. To begin with, some concepts such as life satisfaction and vigor are conceptually different from positive affect

and actually belong to other dimensions of happiness or mental health (Keyes, 2002, 2007). More importantly, positive affect concerned in these studies mainly belong to high-activated forms of positive affect, such as entrepreneurial passion (Cardon et al., 2009). While high-activated forms of positive affect are generally more likely to induce actions (Cardon & Kirk, 2015), low-activated positive affect may also play an important role in entrepreneurship. Moreover, high-activated forms of positive affect are often accompanied with high-activated negative affect, which might balance out or exaggerate the benefits of positive affect (Larsen & Diener, 1987).

In this paper, we define positive affect as an overall positive affective state, represented by the frequency of experiencing positive emotion, thus encompassing both high-activated and low-activated affective components. Positive affect, in the current study, is not a momentary feeling but a quite stable state. It is, however, not defined as a trait or disposition, and is still malleable and subjected to change and regulation.

We seek to contribute to the research of positive affect in entrepreneurship in three main ways. First, we adopt an overarching framework of self-regulation in explaining the relationship between entrepreneurs' positive affect and motivational outcomes. Integrating reasoning, feeling, and behavior into accord with desired objectives (Forgas, Baumeister, & Tice, 2009), self-regulation has established itself to be one of the most important psychological processes explaining motivational phenomenon across the entire human lifespan (Forgas et al., 2009; Kanfer, 1991). However, this framework is rarely employed in the entrepreneurial motivation context. Hence, the current study seeks to investigate the effect of positive affect on entrepreneurial motivational outcomes through the lens of self-regulation, and specifically suggests two central mechanisms: Indirectly, positive affect influences entrepreneurial motivation through its effect on entrepreneur's judgment components (expectancy judgments, utility judgments, and progress judgments) involved in conscious decision-making processes (e.g., Baron, 2008; Meyer, Gaschke, Braverman, & Evans, 1992). Positive affect also affects entrepreneurial motivation directly, in ways that are not mediated by such

deliberative cognitive processes (e.g., O'Shea et al., 2017; Seo, Barrett, & Bartunek, 2004).

Second, compared with the large amount of works studying positive affect in relation to entrepreneurial intention (e.g. Hayton & Cholakova, 2012), entrepreneurial orientation or strategic posture (Bernoster et al., 2018), and initial entry into entrepreneurship (e.g. Foo, 2011), we focus on the effect of positive affect on entrepreneurs' subsequent behavior after initial engagement. Specifically, following the classification of notable works of work motivations (Kanfer, 1991; Locke & Latham, 1990; Seo et al., 2004), we examine positive affect on three motivational outcomes: intrinsic orientation versus extrinsic orientation (direction), entrepreneurial effort (intensity), and entrepreneurial persistence (persistence), through which we aim to provide a more comprehensive understanding of positive affect in the dynamic entrepreneurial process over time. Mainly due to conceptual challenges, the direction and persistence dimensions of motivational outcomes have received far less attention from organizational researchers, and thus we attempt to illustrate these two dimensions with more depth.

Third, within the self-regulation perspective, motivation is argued to be affected by a triadic process of interactions among personal, behavioral and environmental factors (Bandura, 1986). We adopt this perspective by examining the joint impact of entrepreneurs' positive affect and a key environmental variable—environmental uncertainty—on entrepreneurial motivational outcomes, asides from the main effects of positive affect, while we empirically measure environmental uncertainty using an objective measure following Boyd (1990).

The paper is structured as follows. The next section presents the theory we employ to guide our empirical work. We first elaborate on the construct of positive affect, and then propose the relationships between entrepreneurs' level of positive affect and three motivational outcomes, as well as the moderating role of environmental uncertainty. We then demonstrate our methodology and data, and present our empirical results. Specifically, we adopt data from the China Financial Household Survey, and estimate logit models to explain entrepreneurial intrinsic orientation

and entrepreneurial persistence, and a linear regression model to explain entrepreneurial effort. The final section discusses the findings in the light of theory, draws theoretical and practical implications, and suggests possible avenues for further research.

4.2 Theory and Hypotheses

4.2.1 Positive Affect

Affect incorporates the basic and general experience of moods, emotions, and feelings Frijda (1993, 1999). While moods are often taken as unconscious states without specific trigger, and emotions are generally regarded as shorter-term and more intense affective experiences coupled with trigger, feelings are more complicated including components of cognition and affection, making them the most conscious states of affective experiences. Although some have collapsed concepts such as emotions, moods, and feelings (Lucas et al., 2003), there is still no universal agreement about the definitions of affective phenomena and their underlying components (see Larsen & Fredrickson, 1999).

Despite this divergence, researchers studying affect agree with the classification in terms of two characteristics — structure and stability. In regards to structure, affect can be divided into two core dimensions: valence (or hedonic tone) and arousal (or activation) (Russell, 1980; Russell & Barrett, 1999). While the first refers to the degree of pleasantness or attractiveness of an emotional experience (positive or negative), the latter reflects the degree of intensity and action tendency that accompanies the hedonic experience. Previous studies often study and measure *high-activated* positive affect, which is positive valence combined with high arousal. In this paper, we do not differentiate positive affect along the arousal dimension, i.e. we include both high-activated and low-activated positive affect.

In regards to stability, there are generally two types of affect — dispositional affect and event-generated affect. While dispositional affect refers to relatively stable and cross-situational tendencies to experience specific affect, event-generated affect emphasizes the temporary shifts in

such affective experience generated from certain situations. Since entrepreneurial engagement and motivational outcomes are continuing processes, we expect that there is a stronger influence of entrepreneurs' more stable affective state than fleeting or temporary affective experience. Hence, our study defines positive affect as an emotional state, which is a relative stable concept (emotional state of affect) but still malleable along with personal development. Furthermore, our definition of positive affect is an overall state, reflecting to what extent one's overall emotional status is occupied by a positive hedonic tone. Therefore, the definition inherently involves a balanced judgment between positive affect and negative affect, which is significant for investigating its effect on entrepreneurship.

4.2.2 Positive Affect and Entrepreneurial Motivational Outcomes

A wide range of scholars agree that human motivations occur within the context of self-regulations (cf. Carver & Scheier, 1998; Kanfer & Ackerman, 1989; Klein, 1991). Through a self-regulation process, i.e. a process of planning and cyclically adapting self-generated thoughts, feelings, and actions (Zimmerman, 2000), human beings form their motivations, i.e. deciding how to allocate their personal effort and resources in order to attain personal goals (Kanfer et al., 2008). In consequence, notable theories of work motivation have coalesced around an overarching framework of self-regulation perspective, including needs theory (e.g., Maslow, 1943), goal-setting theory (Locke & Latham, 1990), expectancy theory (Vroom, 1964), and control theory (Carver & Scheier, 1998).

More importantly, we can see that the affective phenomenon is one fundamental element of the self-regulation process (cf. Aspinwall, 1998; Damasio, 1999), rendering it a significant link through which positive affect can be conceptually integrated into the motivational phenomenon. Thus, many researchers have spent efforts in bringing emotion and affect into the self-regulation dialogue (e.g., Damasio, 1994; Gollwitzer & Bayer, 1999; Izard, 1993). And this link, we believe, is especially relevant and essential in the entrepreneurship context, in which self-regulation requirements are more strict than in other work contexts (O'Shea, et al.,

2017). Compared with employees, entrepreneurs work in more autonomous conditions, and they often need to handle potentially conflicting goals simultaneously (see Nambisan & Baron, 2013). In addition, major phases of venture launching and post-launching processes require longer time to achieve, and thus need goal setting and implementation within a longer-time horizon. Bateman & Barry (2012) indicate that self-regulation is more important for realizing long-term goals. Therefore, the unique characteristics of entrepreneurship present us a context to deeply understand the relationship between positive affect and motivational outcomes from the self-regulation perspective, although it is a useful theoretical anchor to understand the relationship for any individual.

From the self-regulation perspective, we mainly argue that positive affect influences entrepreneurial motivational outcomes through two mechanisms: an intentional (cognitive) as well as an aroused and non-informative (affective and behavioral) route (McClelland, 1985) to achieve a goal. On one hand, it can affect entrepreneur's mind or psychological system indirectly through cognitive process. On the other hand, it can directly influence entrepreneur's motivation through affective and somatic processes. Furthermore, the effect of positive affect on motivations might be determined by its interaction with other behavioral and environmental factors (Wood & Bandura, 1989). This is supported by the social cognitive perspective, in which self-regulation is distinctively viewed as an interaction of personal, behavioral, and environmental triadic processes (Bandura, 1986). Thus, we further investigate the moderating role of a key environmental variable: environmental uncertainty, in affecting the relationship between positive affect and entrepreneurial motivational outcomes.

Positive Affect and Intrinsic versus Extrinsic Entrepreneurial Orientation

We suggest that positive affect influences the entrepreneur's motivational choice between intrinsic and extrinsic orientation indirectly via its influence on expectancy judgments and utility judgments involved in

conscious, evaluative and deliberative processes. Expectancy theory (Vroom, 1964) in work motivation states that people, when deliberating, make a within-person choice between behavioral options based on two judgments on (1) the expectancy of certain actions leading to certain outcomes (expectancy judgment) and (2) the allure of those outcomes (utility judgment). Employed in entrepreneurship context, expectancy theory implies that the entrepreneur's motivational choice hinges on the combination of judgments in regards to the strength of their expectations in successfully establishing or growing their ventures, and the extent to which they evaluate such outcomes as attractive or desirable. This view is also supported by entrepreneurship studies (e.g., Krueger & Brazeal, 1994; Shane, Locke, & Collins, 2003).

The level of individuals' positive affect influences both expectancy and utility judgments (Forgas, 1995). First, individuals in an overall positive emotional state tend to recall and focus on favorable and positive outcomes, and have more self-efficacy in expecting to achieve those favorable outcomes from mood congruence theory (e.g., Meyer et al., 1992; Wegener & Petty, 1996). Thus, the higher level of positive affective state entrepreneurs possess, the more likely they believe their actions are able to realize their potential goals, and the more willing they are to proactively engage in this process. On the contrary, the lower the level of positive affective state entrepreneurs have, the less likely they are confident to see the enjoyment of their actions, and the more likely they are to seek extrinsic rewards in their entrepreneurial engagement process.

Second, positive affect level is able to affect individuals' utility judgments through affect infusion (e.g., Forgas, 1995; Schwarz, 1990), such that immediate positive affective experiences induce a greater level of utility judgments (Damasio, 1994). Considering that people with a higher level of positive emotional state tend to experience positive feelings more frequently, they, thus, are more likely to find potential outcomes more attractive. In entrepreneurship, this suggests that the higher the level of positive affect entrepreneurs possess, the more likely they will feel the fruitful and interesting rewards from the successful engagement of the entrepreneurial process per se. If entrepreneurs have a rather low level of

positive affect, they are less likely to be gripped by the entrepreneurial process but favor extrinsic orientations and retain an adaptive position in this process.

While traditional theories of motivation, such as expectancy theory (Vroom, 1964) and the theory of planned behavior (Ajzen, 1991), typically focus on people's cognitions in explaining motivational processes, the fact that they routinely underestimate the effects of affective processes limits the scope of explanation they can offer. As a result, entrepreneurship researchers fail to explain motivational phenomena in entrepreneurship that are not based on individuals' conscious decision-making processes, but related to the other non-informative mechanism. In this case, we argue that entrepreneurs' positive affect can play a central role in directly influencing their intrinsic motivations through this non-informative and affective route (Parker et al., 2010). From Isen & Reeve (2005), positive affective experience was found to enhance the expectation of how interesting a task is and the experience of interest, enjoyment, and satisfaction derived from engaging in the activity, demonstrating that a positive emotional state can foster the entrepreneurs' intrinsic motivation during the engagement process even though they might not hold it at the beginning. However, the study also demonstrated that this influence is not experienced in the same way across all types of activities (Isen & Reeve, 2005), such that this effect might not hold for a dull and routine task. But it also indicates that the effect might be much stronger for a challenging, innovative and fulfilling activity, which is exactly the type of activity involved in entrepreneurial engagement. Based on the above arguments, we formulate the following hypothesis:

H1: The level of positive affective state is positively related to the likelihood of the entrepreneur being motivated by intrinsic orientation relative to extrinsic orientation.

Positive Affect and Entrepreneurial Effort

In regards to the amount of effort, representing the intensity of motivational outcomes, the level of entrepreneur's positive affect might also influence it via two mechanisms. Indirectly, positive affect can

influence entrepreneurial effort through influencing expectancy judgment and goal difficulty, and utility judgment and goal commitment. Based on goal-setting and goal-striving theory in work motivation (Locke & Latham, 1990), the amount of effort is directly affected by goal commitment—the determination to realize the goal, and goal level—the level or difficulty selected to reach the goal (Locke, Motowidlo, & Bobko, 1986). Besides, researchers have examined the relationships between expectancy theory and goal-setting theory, demonstrating that when all possible behavioral options are considered, goal level is positively affected by expectancy judgments, and goal commitment is positively affected by utility judgments (e.g., Klein, Wesson, Hollenbeck, & Alge, 1999).

Therefore, applied in the entrepreneurial context, entrepreneur's positive affect is likely to influence entrepreneurial effort via two identified paths. First, entrepreneurs who have a higher level of positive affect are likely to have higher expectancy judgments about their action leading to entrepreneurial success, and this, in turn, will direct them to set a greater difficulty goal level and to dedicate more effort to achieving the goal. Second, entrepreneurs' positive affect is likely to enhance the attractiveness or importance of pursuing entrepreneurial activity, and thus, they will feel more committed to and devote more effort toward creating and growing their ventures.

Perhaps more importantly, entrepreneurs' positive affect can influence the amount of entrepreneurial effort directly through a non-informative route that is not a deliberating and conscious process. Tice Baumeister, Shmueli, & Muraven (2007) found that positive affect is beneficial for restoring and boosting energetic resources for self-regulation. In addition, Bernoster et al. (2018) empirically tested and confirmed the direct positive effect of positive affect on entrepreneurs' proactiveness as one dimension of entrepreneurial orientation. Therefore, an overall positive emotional state is one component of entrepreneurs' mental wellness, reflecting the nutriment level of entrepreneurs for future recovery and coping, and is likely to directly enhance the amount of effort spent over future entrepreneurial engagement. This leads to the following hypothesis:

H2: The level of positive affective state is positively related to the amount of entrepreneurial effort the entrepreneur commits to.

Positive Affect and Entrepreneurial Persistence

For the cognitive route, the entrepreneur's level of positive affect can influence entrepreneurial persistence through affecting the progress judgment based on control theory (Carver & Scheier, 1998), which suggests that people tend to change or withdraw their intended course of action when they have a negative perception of the progress they are making toward reaching their intrinsic or extrinsic goals, and this progress judgment can be affected by one's core affect (Seo et al., 2004). We predict two ways in which positive affect of entrepreneurs can influence their progress judgments.

First, positive affect can influence information process and response, thus affecting the frequency and depth of making progress judgment. Positive affect is found to foster more automatic, unsystematic, and experience-based processing (e.g., Bless, Bohner, Schwarz, & Strack, 1990; Mackie & Worth, 1989), implying that entrepreneurs, all else being equal, with a greater level of positive emotional state might be less attentive to progress feedback and, hence, make progress judgments less frequently and thoroughly, resulting in greater likelihood of persistence. Second, people might have a greater confidence and belief in their current action if they are in greater level of positive affective states, according to mood congruence theories (e.g., Meyer et al., 1992; Johnson & Tversky, 1983). Thus, entrepreneurs with higher levels of positive affective state tend to make more favorable progress judgments than those with lower levels of affective state, leading to a greater likelihood to maintain their current course of action.

Perhaps more importantly, entrepreneurs' positive affect can influence entrepreneurial persistence directly through non-informative and affective processes. Such direct effects are indicated through the affect maintenance theory, which states that people tend to behave in a way to maintain their current positive affective states if they are relatively high, but to adjust them if they are relative low (cf. Isen, 2000; Forgas, 1995).

This suggests that high or low level of positive affect might generate two distinctive motivational impetuses for either maintaining or altering the current course of action (cf. Oatley & Johnson-Laird, 1996), i.e. indicating persistence or withdrawal respectively, and neither of them requires conscious awareness and control (Wegener & Petty, 1996). To conclude, we hypothesize that:

H3: The level of positive affective state is positively related to the likelihood of entrepreneurial persistence.

4.2.3 Moderating Effects of Environmental Uncertainty

Self-regulation, from the social cognitive theory, incorporates and blends dispositional, behavioral, and environmental perspectives into a comprehensive framework, implying interactions between personal and environmental variables on human motivational outcomes. Environmental uncertainty is one variable that defines the entrepreneurial context and is fundamental to the entrepreneurial process in that entrepreneurial decision-making happens in uncertain environments whereas non-entrepreneurial decision-making takes places under conditions of risk (Alvarez & Barney, 2005).

Although uncertainty is a broad and complex concept viewed by scholars from numerous perspectives (e.g., Andersson, 2017; Dequech, 2011; Ellsberg, 1961; Knight, 1921; Milliken, 1987; Spender, 1989), scholars mainly focus on *environmental* uncertainty, which Miles and Snow (1978, p. 195) defined as “the predictability of conditions in the organization’s environment”. More specifically, environmental uncertainty is one of the four distinct types of uncertainty classified by Packard et al. (2017), embodying the complexity and dynamism (Downey Hellriegel, & Slocum, 1975), as well as the collective effect of various actors.

Entrepreneurship scholars have largely studied the impact of environmental uncertainty on entrepreneurship, with one stream focusing on entrepreneurial opportunities (Kirzner, 1997; Shane & Venkataraman, 2000), and another stream presenting immense difficulties and challenges

for entrepreneurs (e.g., Chandler, Honig, & Wiklund, 2005; Markman, Baron, & Balkin, 2005). In consequence, we have reasons to believe that the degree of environmental uncertainty can alter the effect of entrepreneurs' positive affect on their motivational behaviors.

We first discuss the moderating impact of environmental uncertainty on the relationship between positive affect and the direction of entrepreneurial orientation. First, the effect of entrepreneurs' expectancy and utility judgement on entrepreneurial orientation choice is closely contingent upon environment uncertainty. While the increased level of expectancy judgment and utility judgment promotes intrinsic orientation relative to extrinsic orientation in entrepreneurial engagement, this effect might be severely reduced in contexts with high environmental uncertainty. Due to the heavy information processing burdens (Chandler et al., 2005), and thus higher levels of distress and anxiety (Markman et al., 2005) in more uncertain environments, entrepreneurs tend to subject to extrinsic considerations (e.g., financial return, family companionship, social norms) even if they are highly optimistic about their success and they are highly satisfied from the intrinsic rewards of entrepreneurial engagement per se. Hence, entrepreneurs are more likely to have an intrinsic orientation towards entrepreneurial engagement in an environment with a lower level of uncertainty.

Moreover, in regards to the direct effect of positive affect on entrepreneurial motivations, the environmental uncertainty might alter the entrepreneurial orientation. According to affect maintenance hypotheses (Isen, 2000), entrepreneurs who obtained positive affect from entrepreneurial engagement tend to strive for this experience and maintain the level of positive affect. As a result, in situations of lower environmental uncertainty with higher predictability, entrepreneur's positive affect is more likely to engender flexibility and open-mindedness, broaden the attention and perception scope and create new goals, and thus leads to higher level of intrinsic motivation in pursuing entrepreneurship. On the contrary, in high environmental uncertainty with more information burdens and stress, entrepreneur's positive affect is (relatively) more likely to foster a risk avoidance approach, and thus triggers more extrinsic

concerns in terms of entrepreneurial engagement. Therefore, we propose the following hypothesis based on the above arguments:

H4a: The effect of positive affective state on the likelihood of the entrepreneur being motivated by intrinsic orientation relative to extrinsic orientation is stronger when the venture is within a less uncertain, as opposed to a more uncertain, industry environment.

While we propose a negative moderating effect of environmental uncertainty on the relationship between positive affect and intrinsic versus extrinsic entrepreneurial orientation, we suggest that environmental uncertainty can positively moderate the effect of entrepreneur's positive affect on entrepreneurial effort and persistence mainly from the following two reasons.

First, environmental uncertainty can positively moderate the indirect effect of positive affect on entrepreneurial effort through goal level and commitment, and on entrepreneurial persistence through progress judgment. Goal level and commitment are significantly more important for fostering entrepreneurial effort in more uncertain environments, where unknown changes emerge relentlessly over time and the outcomes of any chose action is hard to fully predict (Packard et al., 2017). And progress judgment becomes increasingly essential in uncertain circumstances where the goal attainments require a series of action steps based on intermediate, ambiguous, and/or complex feedback.

Second, in more uncertain environment, entrepreneurs' positive affect is more influential in affecting entrepreneurial effort and persistence directly through affect maintenance. Working in an environment with high levels of distress and anxiety, entrepreneurs are more like to cherish and strive for positive experience, without conscious awareness (e.g., Wegener & Petty, 1996). Thus, they are more likely to maintain their efforts and persist in this process towards their long-term goals. Besides, there is both theoretical and empirical support that affect is generally more influential in highly uncertain and unpredictable environments (Baron, 2008; Baron

& Tang, 2011; Hmieleski & Baron, 2009). Based on these evidences, we propose that:

H4b: The effect of positive affective state on the amount of entrepreneur's entrepreneurial effort is stronger when the venture is within a more uncertain, as opposed to a less uncertain, industry environment.

H4c: The effect of positive affective state on the likelihood of entrepreneurial persistence is stronger when the venture is within a more uncertain, as opposed to a less uncertain, industry environment.

4.3 Methodology

4.3.1 Data

The data source used in the present study is the CHFS (China Household Finance Survey). CHFS is until now the only nationally representative survey in China that contains detailed information about household demographic characteristics, occupational and entrepreneurship information, assets and debts, insurance and social welfare, and income and expenditures. The survey is conducted every two years initiated by SWUFE (Southwestern University of Finance and Economics) in 2011 and is increasingly getting support from major banks and local government in China. The present paper uses the 2011 and 2013 waves of CHFS. As one of the co-authors participated in the data collection of the 2013 CHFS, we have access to the full dataset of CHFS 2011 and 2013.

The 2011 CHFS collected information from 8,438 households, and the 2013 CHFS increased the number to a total of 28,228 households based on tracking the same households in 2011 survey as far as possible, covering 29 provinces (except Tibet, Xinjiang, Inner Mongolia, Hong Kong, Macau, and Taiwan), 262 counties, and 1,048 communities. The 2013 CHFS was not only nationally representative but also representative at the provincial level, offering a more comprehensive and detailed reflection of the condition of Chinese households. The overall refusal rate

is 11.6%, where the urban refusal rate is 16.5% and the rural refusal rate is 3.2% (See Gan et al., 2013 for more details).

Attempting to go beyond cross-sectional data and correlational claims, we included all entrepreneurs who participated in CHFS 2011 and have been still surveyed in CHFS 2013. Our predictor data of positive affect are from CHFS 2011, and the data of subsequent motivational outcomes are from CHFS 2013 tracking the same sample of entrepreneurs correspondingly. We define entrepreneurs as respondents who answered yes to the following question: “Are you currently engaging in a start-up activity (actively involved in setting up a business you will own or co-own, and you have already received salaries, wages, or any other payments from this new business)?”. As we mentioned, we focus on the start-up engagement phase beyond entrepreneurial intention, opportunity recognition, and initial venture creation. 1391 entrepreneurs, surveyed in 2011 CHFS, were successfully tracked by 2013 CHFS. Hence, we have 1391 initial observations for our regressions explaining entrepreneurial persistence. Among these entrepreneurs, 369 do not persist in engaging in this business activity in 2013, resulting in 1022 observations left for our regressions explaining entrepreneurial orientation and entrepreneurial effort. After excluding missing values for all variables, we performed our analysis for entrepreneurial persistence on a final sample of 1237 entrepreneurs, and our analyses for entrepreneurial orientation and entrepreneurial effort on 868 entrepreneurs.

4.3.2 Variables and Measures

Dependent Variables. Our dependent variable *intrinsic versus extrinsic orientation* was measured as a dummy variable. Specifically, CHFS asked one question about the main reason of entrepreneurs for currently engaging in new business activity, with the following answer categories: 1 = find no other better option for work; 2 = increase income; 3 = want to be own boss and eager of freedom; 4 = interested by the entrepreneurial experience itself; 5 = other reasons. Option 4 was coded as 1, and all other options were coded as 0. *Entrepreneurial effort* was measured by the question: “In an average week, how many days do you spend working on

this start-up project?”, thus with a range from 0 to 7. *Entrepreneurial persistence* reflected whether the entrepreneur maintains in engaging new business activity in 2013. The entrepreneurs who engaged in new business activity in both CHFS 2011 and 2013 were coded as 1, and the entrepreneurs who engaged in new business activity in CHFS 2011 but dropped out in CHFS 2013 were coded as 0.

Predictor of Positive Affect. Positive affect was measured in 2011 on the basis of the Gurin Scale (Gurin, Veroff, & Feld, 1960), which appears in major surveys such as the World Values Survey and the General Social Surveys: “Taking all things together, what is your overall positive emotional state would you say you are in”? 1 = not at all positive, 2 = not too positive, 3 = fairly positive, 4 = very positive and 5 = extremely positive. Though the measure has statistical limitations due to its single-item nature, this global measure is argued to be the simplest and most readily used self-reported measure of positive affect (Lucas et al., 2003), and does not restrain positive affect to high-activated or intense feelings. The measure is also recommended for its appropriate sensitivity to changing life circumstances (Diener et al., 1991). Moreover, the measure adds to the Gurin Scale through taking overall state and frequency into account. Hence, it is more consistent with our definition, reducing the concerns for paralleling negative affect that might alter the real effect.

Moderator of Environmental Uncertainty. Following Boyd (1990), we measured industry-level environmental uncertainty as the standard errors of the regression slopes of regressing industry revenues against time. Industry revenue has been widely perceived as a way to reflect uncertainty (e.g., Keats & Hitt, 1988; Sharfman & Dean, 1991), and this approach has been used as an archival measure of environmental dynamism in several previous studies (e.g., Hmieleski & Baron, 2009). We obtained the data from the National Bureau of Statistics of the People’s Republic of China, and for each industry we regressed industry revenues against time for the ten-year period of 2002–2011. Specifically, time (2002–2011) was entered as an independent variable and annual revenues as dependent variable for each industry category according to the GICS code. Then, the standard errors of the regression coefficients were divided by the mean revenues

values of the 10 years. The mean of the environmental uncertainty variable was 0.89, indicating moderate change in sales levels, and we did not observe potential outliers.

Control Variables. We controlled for a number of influences at the individual level, the firm level, and the household and regional level. At the individual level, we controlled for entrepreneur's gender (female=1), age (continuous variable), education (in years)⁴, risk attitude (1= highest risk averse and 5 = highest risk preference), dummy variable of time preference (1= emphasize more for the future)⁵, and entrepreneur's entrepreneurial experience (the amount of ventures the entrepreneur previously founded) (Parker et al., 2010). Firm-level variables include firm age (in years), the industry that the venture is active in expressed as a set of dummies⁶, and the log value of 2011 firm revenue (in 10-thousand Chinese Yuan) as a measure of firm size. Household-level characteristics include household yearly income⁷, and region-level characteristics include GDP per capita of the local city, and dummy for urban or rural of business activity location (Stam et al., 2010).

⁴ In the survey, the education level options were: "1. Never Attended School; 2. Primary School; 3. Junior High; 4. High School; 5. Secondary/Vocational School; 6. College/Vocational; 7. Undergraduate Degree; 8. Masters Degree; 9. PhD Degree". According to the Chinese situation, we transformed it to education years as 0, 6, 9, 12, 13, 15, 16, 19, 22 years.

⁵ The item is "assume that the current interest rate is zero, without considering price fluctuations, you can either receive 1000 RMB tomorrow or 1100 RMB in one year. What's your choice? (0 = "Get 1000 RMB tomorrow"; 1 = "Get 1100 a year from now").

⁶ 1. Mining; 2. Manufacturing; 3. Electricity, gas and water production and supply; 4. Construction; 5. Transportation, storage and postal industry; 6. Information transmission, computer services and software industry; 7. Wholesale and retail trade; 8. Hospitality; 9. Finance; 10. Real Estate; 11. Leasing and Business services; 12. Scientific research, technical services and geological prospecting; 13. Water environment and public facilities; 14. Residential services; 15. Education; 16. Health, social welfare and social welfare; 17. Culture, sports, entertainment; 18. Public administration and social groups; 19. International organizations; 20. Other

⁷ We winsorized the variable of household income at the 1% and 99% levels.

Table 4.1 Summary statistics and correlations ^a

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Entrepreneurial intrinsic orientation	0.13	0.34															
2. Entrepreneurial effort	6.52	1.23	.00														
3. Entrepreneurial persistence	0.59	0.49	^b	^b													
4. Postive affect	3.78	0.80	.07 *	-.03	.06 *												
5. Env uncertainty	0.89	0.24	-.03	.03	-.01	.08 *											
6. Time preference	0.31	0.46	.03	.00	-.03	.07 *	-.01										
7. Age	47.02	12.09	-.11 *	.01	-.11 **	.02	.02	.05									
8. Gender (female)	0.57	0.50	.00	.00	.03	.00	.01	.03	.13 ***								
9. Education	16.86	5.26	.02	.04	.08 *	.06	-.01	-.05	-.14 ***	.04							
10. Risk attitude	2.46	1.25	.04	-.12 **	-.01	.04	.01	-.04	-.31 ***	.09 **	-.04						
11. Entre experience	1.11	0.51	.05	-.04	.03	.03	-.03	.02	-.12 ***	-.02	.00	.05					
12. Firm age	8.46	7.41	-.05	.05	.05	-.01	.04	.02	.24 ***	.09 *	-.05	-.12 ***	-.06				
13. Log revenue	10.71	1.66	.16 ***	-.06	.12 ***	.13 ***	-.03	-.04	-.24 ***	.04	.04	.18 ***	.16 ***	-.07 *			
14. Log hh income	10.33	1.09	.01	-.09	.04	.12 ***	-.01	.01	-.06	.08 *	-.02	.12 ***	.13 ***	.07 *	.45 ***		
15. Log GDP	10.58	0.37	.02	-.05	.04	.04	-.06	.02	-.04	.00	-.02	.02	.07 *	.00	.25 ***	.20 ***	
16. Rural	0.32	0.47	.04	-.08	-.08	.07	-.04	.07 *	.22 ***	.09 **	-.06	-.02	-.04	.09 **	-.13 ***	.00	-.17 ***

^a *** p < 0.001, ** p < 0.01, * p < 0.05; n = 1237

^b The value is missing since there is no variation of Eship persistence (all with value of 1) for Eship orientation.

4.3.3 Statistical Analysis

We utilized the logit model for explaining the binary outcomes of entrepreneurial orientation and persistence, and the linear regression model for explaining entrepreneurial effort. All the regressions were adjusted using sampling weights⁸ with robust standard errors. We calculated variance inflation factors (VIF) to assess multicollinearity. The maximum VIF within all the models was 1.58, which is well below the rule-of-thumb cut-off of 10 (Neter et al., 1990).

4.4 Results

Table 4.1 presents the descriptive statistics and correlations for the covariates of entrepreneurial orientation, effort, and persistence. Entrepreneurs' positive affect level displays significant positive correlations with entrepreneurial intrinsic orientation and entrepreneurial persistence, consistent with our hypotheses, but does not significantly correlate with entrepreneurial effort. We seek to gain more insight from our multivariate regression analysis. Table 4.2 displays the findings for the effect of positive affect, along with the interaction with environmental uncertainty, on intrinsic versus extrinsic orientation (Model 1-3), and entrepreneurial effort (Model 4-6). Table 4.3 reports the effect of positive affect and environmental uncertainty on entrepreneurial persistence.

4.4.1 Positive Affect, Environmental Uncertainty and Intrinsic versus Extrinsic Entrepreneurial Orientation

As can be seen in Table 4.2, Model 2 shows that there is a direct and positive effect of positive affect on the likelihood of pursuing entrepreneurship from intrinsic orientation rather than extrinsic orientation ($B = 0.21$, $p < 0.05$), and the Wald test shows a significant improvement in model fit after adding positive affect and environmental uncertainty

⁸ Sampling weights were computed as follows based on the three-stage probability proportion to size (PPS) random sample design of CHFS. Three probabilities were calculated as P1 (the probability of the chosen county/city from the provinces), P2 (the probability of the chosen residential committee/village from that county), and P3 (the probability of the chosen household from that committee). Thus, the overall sampling weight equals $1/(P1*P2*P3)$.

($\chi^2(2) = 4.93, p < 0.05$), supporting our H1 that entrepreneurs with a greater level of positive affect are more likely to engage in the entrepreneurial process with intrinsic motivations as opposed to extrinsic motivations. Moreover, we can see, in Model 3, that environmental uncertainty negatively moderates the relationship between positive affect and entrepreneurial orientation ($B = -1.39, p < 0.05$), and the Wald test supports a significant improvement of model fit versus Model 2 which includes only the main effects ($\chi^2(3) = 4.06, p < 0.05$). This confirms our H4a that entrepreneurs with higher positive affect are more likely to favor intrinsically entrepreneurial engagement than extrinsically engagement within a less uncertain environment. The interaction effect is depicted in Figure 4.1. Regarding control variables, only firm revenue, as an indicator of firm size, demonstrates a consistent and significant positive effect on entrepreneurial intrinsic orientation.

4.4.2 Positive Affect, Environmental Uncertainty and Entrepreneurial Effort

From Model 5 in Table 4.2, we find a non-significant and negative relationship between positive affect and entrepreneurial effort, which confirms the correlation analysis but differs from our hypotheses 2: the level of positive affect is positively related to the entrepreneur's entrepreneurial effort. The interaction effect of positive affect and environmental uncertainty on entrepreneurial effort is not significant as well. We believe this non-result may be related to the rough measure of entrepreneurial effort employed in this paper, i.e. effort is measured in terms of the number of *days* in the week an entrepreneur is working on his or her start-up (see Section 3.2) rather than the number of *hours*. This suspicion is reinforced by the high average value for our effort variable (6.52 days per week, see Table 4.1). Firm revenue still maintains to be the only control variable which displays consistent and significant effects on entrepreneurial effort.

Table 4.2 Effects of Positive Affect and Environmental Uncertainty on Entrepreneurial Orientation and Entrepreneurial Effort ^a

VARIABLES	Intrinsic Entrepreneurial orientation			Entrepreneurial effort		
	Model1	Model2	Model3	Model4	Model5	Model6
<i>Main effect</i>						
Positive affect		0.21*	1.42*		-0.14	-0.35
		(0.10)	(0.63)		(0.12)	(0.65)
Environmental uncertainty		-1.81	5.18		1.92	1.06
		(1.86)	(2.97)		(2.08)	(3.29)
<i>Interaction effect</i>						
Positive affect × Environmental uncertainty			-1.39*			0.24
			(0.67)			(0.67)
<i>Controls</i>						
Time preference ^b	0.37	0.35	0.41*	0.12	0.13	0.12
	(0.22)	(0.22)	(0.21)	(0.18)	(0.17)	(0.17)
Age	-0.00	-0.00	-0.01	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Gender (1=Female) ^b	-0.22	-0.21	-0.15	-0.16	-0.17	-0.17
	(0.22)	(0.22)	(0.21)	(0.17)	(0.17)	(0.17)
Education	0.03	0.03	0.02	0.03	0.03	0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Risk attitude	0.09	0.09	0.10	-0.02	-0.02	-0.02
	(0.09)	(0.09)	(0.09)	(0.07)	(0.07)	(0.07)
Entrepreneurial Experience	-0.08	-0.07	-0.00	-0.05	-0.04	-0.05
	(0.22)	(0.22)	(0.21)	(0.10)	(0.10)	(0.10)
Firm age	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01
	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)	(0.01)
Log firm revenue	0.36***	0.35***	0.35***	0.15**	0.16**	0.16**
	(0.07)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)
Log hh income	-0.08	-0.09	-0.03	-0.08	-0.08	-0.08
	(0.09)	(0.09)	(0.09)	(0.07)	(0.07)	(0.07)
Log GDP	-0.14	-0.13	0.03	0.02	-0.02	-0.01
	(0.26)	(0.26)	(0.26)	(0.26)	(0.27)	(0.27)
Rural (1=Rural) ^b	0.06	0.04	0.08	-0.21	-0.20	-0.20
	(0.24)	(0.25)	(0.23)	(0.17)	(0.17)	(0.17)
Wald test (d.f.) ^c		4.93* (2)	4.06* (3)		0.24 (2)	0.85 (3)

^a n = 868; Robust standard errors in parentheses

Industry dummies have been included in the model, but are not reported.

Sampling weights were utilized to compute the final results.

^b Dummy variable

^c Compare the current model to the previous model in the table.

*** p<0.001, ** p<0.01, * p<0.05

4.4.3 Positive Affect, Environmental Uncertainty and Entrepreneurial Persistence

As can be seen in Table 4.3, Model 2 demonstrates a direct and positive effect of positive affect on the likelihood of entrepreneurial persistence ($B = 0.26$, $p < 0.05$), and the Wald test shows a significant improvement in model fit after adding positive affect and environmental uncertainty ($\chi^2(2) = 8.22$, $p < 0.01$), supporting our H3 that entrepreneurs with a greater

level of positive affect are more likely to persist in the postlaunch entrepreneurial process. Furthermore, we can see, in Model 3, that environmental uncertainty positively moderates the relationship between entrepreneur positive affect and entrepreneurial persistence ($B = 1.54$, $p < 0.01$), and the Wald test supports a significant improvement of model fit versus Model 2 ($\chi^2(3) = 6.95$, $p < 0.01$), confirming our H4c that the effect of positive affect on entrepreneurial persistence is stronger in a more uncertain environment. The interaction effect is depicted in Figure 4.2.

Table 4.3 Effects of Positive Affect and Environmental Uncertainty on Entrepreneurial Persistence ^a

VARIABLES	Entrepreneurial persistence		
	Model1	Model2	Model3
<i>Main effect</i>			
Positive affect		0.26*	-1.08*
		(0.13)	(0.52)
Environmental uncertainty		-2.34	-8.29**
		(1.69)	(2.77)
<i>Interaction effect</i>			
Positive affect × Environmental uncertainty			1.54**
			(0.58)
<i>Controls</i>			
Time preference ^b	-0.01	-0.12	-0.15
	(0.25)	(0.24)	(0.25)
Age	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)
Gender (1=Female) ^b	0.20	0.24	0.22
	(0.25)	(0.24)	(0.24)
Education	0.03	0.03	0.02
	(0.02)	(0.02)	(0.02)
Risk attitude	-0.08	-0.07	-0.06
	(0.10)	(0.10)	(0.10)
Entrepreneurial Experience	0.03	0.06	0.04
	(0.22)	(0.26)	(0.20)
Firm age	0.01	0.01	0.01
	(0.02)	(0.02)	(0.02)
Log firm revenue	-0.03	0.18*	0.19*
	(0.13)	(0.09)	(0.09)
Log hh income	0.27	0.08	0.06
	(0.32)	(0.10)	(0.10)
Log GDP	-0.28	0.48	0.50
	(0.25)	(0.31)	(0.32)
Rural (1=Rural) ^b	0.20*	-0.36	-0.38
	(0.09)	(0.25)	(0.25)
Wald test (d.f.) ^c		8.22** (2)	6.95** (3)

^a n = 1237; Robust standard errors in parentheses

Industry dummies have been included in the model, but are not reported.

Sampling weight was utilized to compute the final results

^b Dummy variable

^c Compare the current model to the previous model in the table.

*** p<0.001, ** p<0.01, * p<0.05

4.4.4 Marginal Effect Size of Positive Affect on Entrepreneurial Orientation and Persistence

The logit model is nonlinear in nature, which is intuitively attractive but also complicates the interpretation of regression findings (Hoetker, 2007). In other words, the regression coefficients from logit models do not reflect marginal effects, i.e. how much a change in predictor influences the probability change of the dependent variable. Therefore, following recommendations in Hoetker (2007), we computed the marginal effects of positive affect, for each possible value of positive affect (i.e. 1-5), on entrepreneurial orientation and entrepreneurial persistence in Table 4.4, which is more informative for interpreting the effect size than considering coefficients.

Table 4.4 Marginal effects of positive affect on entrepreneurial orientation and persistence ^a

Variable	Entrepreneurial orientation		Entrepreneurial persistence	
	Effect size	Conf. Interval	Effect size	Conf. Interval
Positive affect at				
1	0.03** (0.01)	[.01 .06]	0.06* (0.03)	[.00 .12]
2	0.04** (0.01)	[.01 .07]	0.06* (0.03)	[.00 .12]
3	0.04* (0.02)	[.01 .08]	0.06 (0.03)	[-.00 .12]
4	0.05* (0.02)	[.00 .09]	0.06* (0.03)	[.00 .11]
5	0.05* (0.02)	[.00 .10]	0.05* (0.02)	[.01 .10]

^a The marginal effect is computed upon Model 2 in Table 2 & Table 3

95% Confidence interval of the marginal effect

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

We can see that the marginal effect size of positive affect on entrepreneurial orientation increases with the level of positive affect, meaning that the higher the level of positive affect the entrepreneur currently has, the greater enhancement of the likelihood of pursuing entrepreneurship from intrinsic orientation relative to extrinsic orientation

one unit increase of positive affect level will exert. We will take one instance to explain. The marginal effect is 0.03 with confidence interval from 0.01 to 0.06, when positive affect value is 1. This is interpreted as, when the entrepreneur’s positive affect level is 1 (i.e. the lowest possible value indicating the overall positive emotional state is not positive at all), a one-unit increase of positive affect level increases the probability of her entrepreneurial engagement orientation from intrinsic motivation by 0.03 (3%-points).⁹ In contrast, when the level of positive affect is 4, a further increase with one unit increases the probability of intrinsic orientation with 0.05. For entrepreneurial persistence we find the marginal effect size to be largely independent of the level of positive affect.

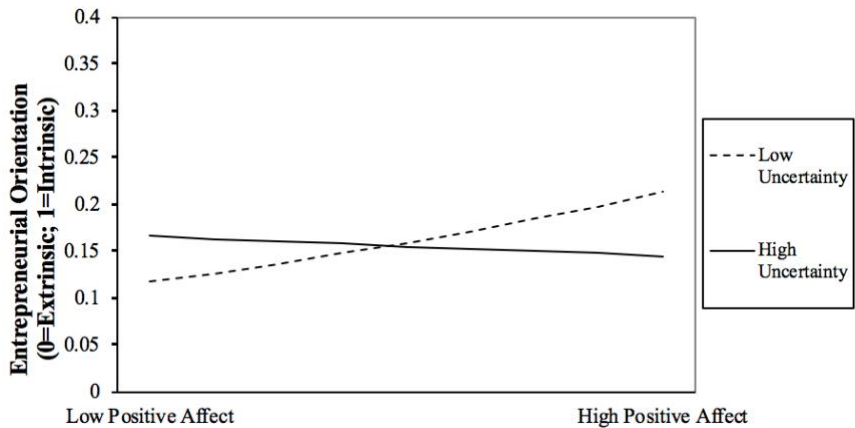


Figure 4.1 The moderating effect of environmental uncertainty on the relationship between positive affect and entrepreneurial orientation

⁹ Note that the mean probability of intrinsic entrepreneurial orientation is 0.13 (see Table 1), i.e. an (absolute) increase of 0.03 corresponds to a relative increase in probability of almost 25%.

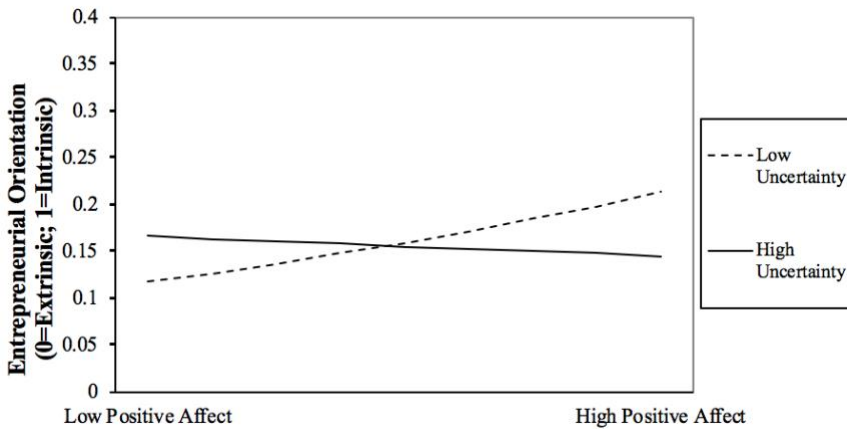


Figure 4.2 The moderating effect of environmental uncertainty on the relationship between positive affect and entrepreneurial persistence

4.4.5 Robustness Checks

First, we constructed an alternative measure for environmental uncertainty—perceived environmental uncertainty—from items in the CHFS 2011. The questions ask the entrepreneur to predict (‘perceive’) the dynamism of environment in terms of economy, interest rates, and local social welfare in the next three to five years (1 = changing slowly; 5 = changing rapidly). We averaged the three scores to obtain the final value of perceived environmental uncertainty. Our results remain consistent when applying this measure for all our analyses.

Second, endogeneity problems could always be a concern for non-experimental studies. For “happy” entrepreneurship research, one cause of endogeneity would be the loop of causality between positive affect and entrepreneurship. Although we deliberately constructed the predictor of positive affect and entrepreneurial outcomes with a clear time order, we still performed another robustness check by regressing entrepreneurs’ level of positive affect in 2013 (dependent variable) on entrepreneurial outcomes in 2011 (independent variables), i.e. we estimated the reverse

causality relation. We did not find significant results for this reverse effect, further confirming our findings.

4.5 Discussion and Conclusions

Drawn from a self-regulation perspective, the present study examines the overall positive emotional state as a resource for entrepreneurs' motivational outcomes in terms of the direction of entrepreneurial orientation from intrinsic perspective relative to extrinsic perspective, the amount of entrepreneurial effort, and the persistence of entrepreneurial engagement.

After controlling for other potential critical influences, we found that the level of positive affect significantly increases the likelihood that entrepreneurs are motivated by intrinsic orientation rather than extrinsic orientation, and significantly increases entrepreneurial persistence during a certain amount of time. Moreover, entrepreneurs are more likely to engage in entrepreneurship with an intrinsic motivation in situations of lower environmental uncertainty, whereas the effect of positive affect on entrepreneurial persistence is greater within a more uncertain and dynamic environment. We did not find evidence for a relationship between positive affect and entrepreneurial effort.

The contribution of our study is two-fold: theoretical and practical. First, we have advanced theory on the resource role of positive affect in entrepreneurship. We examine the effect of positive affect on entrepreneurial motivational outcomes, extending the effect of positive affect on entrepreneurial cognition and various cognitive outcomes. Specifically, we introduce the self-regulation perspective into the dialogue of positive affect and entrepreneurial motivations. Second, our findings could induce great practical implications for potential and actual entrepreneurs to be aware of, and if possible, to regulate their positive affect state. Since our study is based on representative entrepreneurship information from China, it is, thus, more important for understanding the role of positive affect in entrepreneurship in the Chinese context. We will elaborate on each of these contributions in the following paragraphs.

4.5.1 Theoretical Implications

First, we contribute to the theory of entrepreneurial motivation research. We introduce the self-regulation perspective and social cognitive theory into the entrepreneurial motivation dialogue, and specifically examine the effect of one personal variable, entrepreneurs' positive affect, and its interaction with one environmental variable, environmental uncertainty, on the direction, intensity, and persistence of entrepreneurial engagement, which form three major motivational outcomes in work motivation (Kanfer, 1991). Through our study, we highlight the role of positive affect and environmental uncertainty for entrepreneurial motivations.

Second, the present study specifically contributes to the study of positive affect in entrepreneurship. Through the lens of self-regulation perspective, we connect positive affect to entrepreneurial motivational outcomes, extending previous entrepreneurship studies that link positive affect and cognitive outcomes. Moreover, we believe our findings contribute to the wider literature on happiness and well-being. As an important component of well-being or happiness, positive affect, specifically an overall positive emotional state, is important for affecting entrepreneurial behaviors, not only as a universally accepted goal.

4.5.2 Practical Implications

The current research can provide practical implications for potential entrepreneurs, current entrepreneurs, and current top managers or organizations. For potential entrepreneurs, it is important to know and understand the importance of positive affect for entrepreneurial engagement, especially the long-term process of entrepreneurship. For current entrepreneurs, it is more relevant to pay attention to their positive affect levels, considering their importance for entrepreneurial orientation, effort and for persistence in the entrepreneurial process. First, it is essential to assess the positive affect levels, whether it is high, low or medium. If they do not seek to understand their positive affect, they will never succeed in regulating it. Moreover, they should bear in mind that frequency of positive affect is the thing that matters rather than intensity. They do not need to worry if they get into distress and loneliness over a manageable

period of time for instance. They just need to try and keep an overall long-term positive affective state. Besides, it is important to know that the effect of positive affect hinges on environmental uncertainty. For instance, within an environment of low uncertainty, a high level of positive emotional state is more likely to lead the entrepreneur to an intrinsic motivated orientation. For current CEOs or organizations, this study also has practical implications. Top managers and organizations need to realize the importance of stimulating positive affect among employees to foster persistent intrapreneurship and innovation. Besides, we should mention that our findings are particularly valuable for Chinese entrepreneurs and readers, since we used a dataset which is currently the biggest and contains the most representative national entrepreneurship information for China.

4.5.3 Limitations and Suggestions for Future Research

Our study has limitations. First, we are lacking relevant variables, due to the limitations of CHFS, to explore further interesting questions. For instance, we do not have relevant variables such as self-efficacy and entrepreneurial passion, which have been found to influence entrepreneurship engagement and entrepreneurial persistence in previous studies (Cardon & Kirk, 2015). Considering these two variables also have associations with positive affect levels, future studies should add these two variables into the regressions to examine the results. In addition, we cannot test and empirically analyze the theoretical mechanisms between positive affect and subsequent motivational outcomes with one indirect mechanism related to cognitive judgment and the other mechanism stemming directly from the affective process. Perhaps more importantly, we strongly need a concept of *entrepreneurial* positive affect which is specifically induced and generated through entrepreneurial engagement since some theories such as the affect maintenance theory (Isen, 2000) implies an iterative process or relationship between positive affect generated from entrepreneurship and subsequent entrepreneurial outcomes. Thus, we appeal for more future research investigating the effect of general positive affect, and entrepreneurial positive affect on entrepreneurship to confirm

and extend our results, and explore potential mediating factors between positive affect and entrepreneurial outcomes.

A second limitation involves the rough nature of our entrepreneurial effort variable, possibly explaining the lack of a significant relationship between positive affect and entrepreneurial effort found in this paper. Future research should measure effort in terms of hours per week instead of days per week in order to measure effort more accurately.

Third, as the present study focused on China, future research should investigate to what extent our results can be generalized to other socio-economic contexts.

Fourth and finally, a longer period of longitudinal data structure is needed to further confirm our results. With longer periods and time lags, we have more possibilities to model the lag structure between positive affect and entrepreneurial motivational outcomes. In particular, longer periods make it possible to explore more complex relationships between positive affect and entrepreneurship. Inspired by the affect maintenance hypothesis (Isen, 2000), the reciprocal relationship between positive affect and entrepreneurship might manifest itself as an internal dialogue by entrepreneurs who consider more or less the following: “Doing entrepreneurship makes me happy. Since I’m happy about it, let me persist in it.”

6

Discussion

“The history of happiness can be thought of as a history of associations. In wishing for happiness we wish to be associated with happiness, which means to be associated with its associations. The very promise that happiness is what you get for having the right associations might be how we are directed toward certain things.”

(The Promise of Happiness: Ahmed, 2010: 2).

It is not really necessary to prove that most people, perhaps all people, are eager to pursue happiness, which is consistently assumed as the ultimate human desire. Without questioning that happiness is the consensus, I am more interested in what happiness does. Instead of proffering a set of instructions on how to accomplish happiness, I seek to study the consequential meaning of happiness. The way, the level, and the form of happiness humans pursue and achieve might be an important indicator of what they think, what they do, and where they go, and is thus associated with a wide range of human activities and life choices across time and context (e.g. Lyubomirsky et al., 2005). Arguably, the world is made and directed by happiness (Ahmed, 2010).

Following the growing interest of positive experiences in entrepreneurship (Baron, 2008; Schindehutte et al., 2006), I focus on happiness in the field of entrepreneurship. Why do we care about the value of happiness for entrepreneurship? Pursuing entrepreneurial activities is a remarkable personal undertaking, which not only involves more flexibility and freedom than working within an established institution, but more importantly enables individuals to implement this flexibility from learning, growing, and progressing. In other words, entrepreneurship is not just a career option, but more of an activity for human value and growth. By delving into the ways in which happiness (positive mental state) impacts

entrepreneurship, as seen by its effects on entrepreneurial motivations, actions, and mindset, this thesis brings us much closer to the determinants behind the entrepreneurial process. Advancing previous theories and research, I adopt a number of complementary perspectives aimed at connecting happiness and entrepreneurship. The empirical results consolidate my claim that the happiness of an individual as well as of a population uniquely and differentially influences the individual's selection of, continuous growth, and persistence in the creation of new business activities, and also the individual's development of an entrepreneurial mindset.

Chapters 2 to 5 are ordered according to the entrepreneurial action stages. Below, I summarize the findings of this dissertation from the other angle of happiness, I further elaborate the above discussion. I elucidate the theoretical implications of my dissertation for entrepreneurship as well as for happiness research, and address a series of practical implications to a multitude of different stakeholders.

6.1 Empirical Results, Theoretical and Practical implications

The studies start from a positive emotional state in defining happiness. Next, the positive mental core in happiness is extended to incorporate a positive judgmental state and a positive functioning state. Then, happiness is aggregated to be a population level construct, including the indicators of the mean level as well as the variations. Based on this order, I delineate the value of happiness for entrepreneurship.

The concept of happiness: what it is, and how can it be measured?

From different contexts or perspectives, happiness can have different meanings ranging from a certain type of discrete feeling to one's overall mental health or wellness. Seeking to contribute to happiness research, the dissertation provides an integrative model of happiness based on two aspects—a construct dimension and a unit level.

Although scholars have defined happiness from different angles, they agree that the construct of happiness encompasses two central

components—a positive and a mental state. A mental state means happiness refers to our mental health rather than to our physical health, whereas the positive state is the core of happiness and represents a new trend and focus in psychology research that was previously occupied with conditions of various negative states. But what does positive state specifically mean? Within the history of philosophy, psychology, and sociology, three accounts of hedonic theory, desire theory, and objective list theory have conceptualized the positive core as positive emotion, positive evaluation, and positive functioning, respectively. Thus, the current thesis studies happiness as a construct incorporating three distinct dimensions and as a relatively stable phenomenon rather than an instant and discrete one. Therefore, under the hedonic account, the emotional dimension of happiness is defined as an overall emotional state represented by the frequency of experiencing positive emotions. Under the desire account, the cognitive dimension of happiness is defined as a judgmental state represented by how people perceive the satisfaction of their life and important life domains. Drawing on the objective list theory, the eudaimonic dimension (a normative and objective account) of happiness is defined as a functional state represented by the fulfillment of meaningful and value-laden conditions or processes beyond pleasure and satisfaction.

The thesis also offers approaches and suggestions for measuring each dimension of happiness. First, for happiness as a positive emotion, I emphasize two important characteristics: frequency-focused (not intensity focused), and overall state (considering unconscious emotions and negative emotions). I strongly recommended three measures from a variety of affect-related measures. The simplest is still the global single-item measures of happiness, such as “In general, how happy or unhappy do you usually feel?”; “On average what percent of the time do you feel happy?” (Fordyce, 1988). Another succinct yet valid measure is Russell et al.’s (1989) Affect Grid measure, in which respondents tick their general emotional state on an affect grid which includes both dimensions of valence and arousal. While the single-item scales are more likely to be subject to response bias, Zigmond and Snaith’s (1983) Hospital Anxiety

and Depression Scale digs into the unconscious part of the emotional state. Although this measure was initiated to measure anxiety and depression, five items exactly measure a positive emotional state, which need to be reverse coded in the original measure, and other items also focus on central and dispositional emotional states which represent unhappiness.

Second, for happiness as a positive evaluation, single-item and multi-item scales also exist. The widely used measure is Campbell et al.'s (1976) single-item: "How satisfied are you with your life as a whole?", and Diener et al.'s (2009) multi-item Satisfaction With Life Scale. However, these measures all assess global life satisfaction. More context specific measures such as life domain satisfaction measures are increasingly used. The Personal Wellbeing Index, created from the Comprehensive Quality of Life Scale (Cummins et al., 1994), is a widely used measure for evaluating life domain satisfaction.

Third, for happiness from the objective list account, objective measures are utilized. However, the difficulty is that there is no universal standard denoting which specific indicator to include. At the individual level, sociologists have developed quality of life measures. Such indicators assess what individuals do, and how much their life is restricted (Jenkinson & McGee, 1998). As this is different from assessing a mental state, the current thesis draws from the hybrid perspective, psychological well-being paradigm (Ryff, 1989), developed in psychology to measure the positive functioning dimension of happiness. I employed Diener et al.'s (2009) Flourishing Scale which includes the fulfillment of eight aspects—self-acceptance, environmental mastery, positive relationships, personal growth, purpose in life, autonomy, optimism, and engagement. Moreover, the objective list account is more favorably adopted in studying and comparing national happiness, although the same problem of a lack of a global standard still holds.

However, it does lead to our second division of happiness, i.e., in terms of a unit level of analysis. When aggregated, happiness is not an individual but a population construct that has significant economic implications (Bok, 2010). While the psychology of happiness "corrects" the tendency of psychologists to focus on negative states at the expense of

happiness, the economics of happiness “corrects” the tendency of economists to focus on economic growth at the expense of happiness. Aggregated from each dimension of happiness, population happiness can also stand for three dimensions in terms of positive affect, evaluation, and functioning. And objective social indicators are more appealing when measuring macro-level happiness, since they avoid translating problems, responding styles, and potential cultural differences in understanding happiness. A number of objective indicators can be used, but they are often arbitrary with no universal standard. Several representative indexes include the United Nations Human Development Index (HDI), the value-based index (Diener, 1995), the Good Country Index (GCI), and the Happy Planet Index (HPI)¹⁰.

What is the value of different dimensions of individual happiness in entrepreneurship?

This thesis aims to connect happiness to entrepreneurship studies, and each dimension of happiness can contribute to entrepreneurship in its own way. The thesis starts by investigating the value of a positive emotional state in entrepreneurship, going beyond existing studies in three main ways. First, the positive emotional state is not restrained with high-activated or intense forms of positive affect, and is a more balanced account of the emotional state. Second, the thesis extends the lens of positive relationship between happiness and entrepreneurial engagement by highlighting the overlooked motivational mechanisms. Third, instead of focusing on pre-decisional stage of entrepreneurial action phases, the current studies devote more attention to the role of positive emotion on actional and post-actional phases.

Specifically, the findings indicate that a positive emotional state significantly strengthens the likelihood that individuals pursue entrepreneurship from an intrinsic versus an extrinsic goal orientation , and that they grow and persist in entrepreneurship, besides merely

¹⁰ See the following website for more details: <http://happyplanetindex.org/> (HPI); <https://www.goodcountryindex.org/> (GCI).

enhancing their likelihood of entering into new business activities. This also echoes the call that we should spend more effort in studying what drives entrepreneurs *in* entrepreneurship than what drives individuals *into* entrepreneurship (Carsrud & Brännback, 2011). However, my results do demonstrate that too much positive emotion might also exert negative effects on entrepreneurship, from a significant curvilinear effect on entrepreneurial effort.

Moreover, happiness (positive emotion) might simply inhibit entrepreneurship when we collectively consider the other two dimensions of happiness (positive evaluation and positive functioning). I integrate three crucial areas of entrepreneurship psychology research: cognition, emotion, and the self (Shaver, 2003) by investigating the differential effects of three dimensions of happiness on employing effectuation, one control-based entrepreneurship mindset. Specifically, I find that only the positive functioning dimension of happiness is positively related to the adoption of all four effectual principles, while positive affect is only negatively related to the affordable loss principle, and positive evaluation is only negatively related to the leveraging-surprise principle. The thesis echoes the call of entrepreneurship psychology research (Shaver & Scott, 1991) to connect person (psychological characteristics of individuals) to choice (entrepreneurial motivation and entrepreneurial control).

This dissertation is valuable for both potential and existing entrepreneurs as well as for non-entrepreneurs who seek to be more entrepreneurial. First, maintaining and regulating the level of a positive mental state is important as it plays a critical role in forming an entrepreneurial mindset apart from accumulating valuable entrepreneurial skills and experience. It is also an important inner pushing factor for entrepreneurial motivation, which could impact entrepreneurial engagement and persistence (Carsrud et al., 1989). Extant motivational theories are represented by two streams of theoretical anchors—drive theories and incentive theories (Carsrud & Johnson, 2009). Whereas the cognitive approach to psychology has focused on the pull factors and the incentive motivations (Perwin, 2003), the *happiness* approach in the current thesis emphasizes the importance of push factors and driving

theories. Second, it is also important to realize that happiness is not always good. Too much happiness might also induce negative effects on human cognition and motivation, which might impede entrepreneurship. Due to its multi-dimensional nature, happiness can lead to various functional meanings for motivating an entrepreneurial mindset. Third, the fact that happiness is important does not mean that individuals always need to avoid negative states. Positive and negative mental states always coexist, and it is the balanced state that matters. Moreover, bear in mind that the core of positive emotion is frequency rather than intensity, so that rare circumstances of extreme depression or anxiety are not necessarily a big deal.

What is the value of population happiness in entrepreneurship?

Entrepreneurs do not act in a vacuum. Besides person and choice, Shaver and Scott (1991) also point out a third process of entrepreneurship psychology, i.e., the process of representing the external world. By bringing the population happiness into entrepreneurship, the thesis aims to connect the process to choice and provide insights about how individuals take into account the environment in building new business.

The studies in this paper emphasize two important roles of population happiness (positive emotional base) in entrepreneurship—the adjuster of entrepreneurial quality and the catalyst for strengthening individual happiness effect. First, Study 2 (Chapter 3) examines the effect of country happiness (happiness level and happiness inequality) on entrepreneurs' relative entrepreneurship engagement within that country. In other words, the study works on the cause of entrepreneurship quality, i.e., choosing to engage in the lower or higher ends of the entrepreneurship spectrum as opposed to choosing to engage in entrepreneurship versus other career options. Imposing growth as the central tenet of high-quality entrepreneurship (Acs, 2010; Hermans et al., 2015), I further decouple entrepreneurial activity into two dimensions—vertical-scaling entrepreneurship (innovation-focused scale-up entrepreneurship) and horizontal-scaling entrepreneurship (expansion-focused scale-out

entrepreneurship). The findings indicate that the country happiness level significantly enhances the likelihood of entrepreneurs within that country to pursue high-end entrepreneurship on the scale-up dimension, but significantly reduces the likelihood to pursue high-end entrepreneurship on the scale-out dimension. In contrast, country happiness inequality decreases the likelihood of entrepreneurs, within that country, to pursue high-end entrepreneurship on the scale-up dimension, but increases the likelihood of pursuing high-end entrepreneurship on the scale-out dimension. Second, in Study 1 (Chapter 2), I explore the moderating effect of population happiness on the relationship between individual happiness and entrepreneurial absolute engagement. The results indicate that although population happiness has no direct influence on absolute entrepreneurial engagement, the positive effect of individual happiness on driving individuals into entrepreneurship is significantly increased if the individuals are within a higher level of population happiness.

The value of population happiness for entrepreneurship could have important policy implications, and further provides support for government to utilize happiness in assessing a nation's progress beyond economic indicators, such as gross domestic product, unemployment, income level, or inequality. Perhaps more importantly, policymakers need to be aware that country happiness might not be beneficial for fostering high-quality entrepreneurship, considering the opposite effects of country happiness on vertical-scaling and horizontal-scaling entrepreneurship we found in our study. In a nutshell, a happier country is beneficial for more niche and new markets with innovative products, but not for the development of new ventures aimed at dominating the market and enhancing employment. The thesis addresses an often-heard call to determinants of entrepreneurship quality rather than the quantity within the country, i.e., paying attention to the composition of start-ups instead of focusing on the absolute number of start-ups in a country (Shane, 2009).

6.2 Limitations and Future Research

Although the current thesis only empirically tests the differential effects of three dimensions of happiness on an entrepreneurial mindset, I believe

the perspective and approach could provide insights for future studies to further explore the differential happiness effects on entrepreneurship. For example, for entrepreneurial engagement and persistence, can the role of a positive affective state be increased or reduced if a positive judgmental state or a positive functional state is also taken into account? Which dimension of happiness might be the most significant factor for motivating entrepreneurial actions and do the differential effects change under different conditions? Moreover, as our studies stress the important role of population happiness in influencing entrepreneurship, it is essential to explore the differential effects of happiness on entrepreneurship at the macro-level. In this case, the implication lies more at the policy level. In order to propel this dialog, I also encourage more effort in the development of eudaimonic happiness both from a theoretical and an empirical side.

Second, while emphasizing the interplay between emotion, cognition, and motivation within the self-regulation framework, the present thesis has not empirically tested the mechanisms between happiness and entrepreneurship. Thus, the next important step is to study the process between the two, and the different processes for positive affect, evaluation, and functioning in entrepreneurship. Perhaps it would be interesting to examine whether one dimension of happiness serves as the mediator in the relationship between the other dimensions of happiness and entrepreneurship. For instance, the positive evaluative state of entrepreneurs leads to the enhancement of their positive affect levels, subsequently contributing to entrepreneurial effort and persistence; a positive functioning state fosters a positive attitude toward life and work, thus influencing the entrepreneurial approach taken. More research on the moderating factors is needed as well. The current thesis investigates the environmental moderator: environment uncertainty and population happiness. I nudge entrepreneurship scholars to investigate more behavioral and organizational moderators.

Third, the current thesis focuses on one side of the happiness/entrepreneurship nexus, with happiness as the primary independent construct and entrepreneurship as a dependent construct. While the thesis theoretically chose this direction, the dynamic interplay

between happiness and entrepreneurship is another important avenue for further study. Research has already indicated the significant effect of engaging in entrepreneurship on individuals' happiness levels (e.g., Benz & Frey, 2003; Blanchflower, 2004). It would be interesting to explore whether a reciprocal or cycle relationship exists between happiness and entrepreneurial outcomes. Moreover, examining their interplay would reveal how an entrepreneur's happiness evolves along the entrepreneurial process, and promote the creation of a happiness construct derived from entrepreneurship such as entrepreneurial happiness.

Last but not least, the studies in the current thesis can be further improved from an empirical setup. Our studies rely primarily on Chinese context and data, which renders concern for generalization of the findings in other countries, such as western countries with different systems and cultures. In addition, the studies mainly utilize correlational data, which limit the ability to derive causal claims. Therefore, I strongly encourage more replication studies across countries and time to provide more insights about the intricate yet fascinating nexus between happiness and entrepreneurship.

6.3 Conclusive Remarks

The main objective in this dissertation is to explore the value of happiness for entrepreneurship. I have not only aimed to establish a certain relationship between happiness and entrepreneurship, but also examined how positive experiences influence entrepreneurship differently under different conditions, and how different dimensions and levels of happiness affect entrepreneurship differently. To that end, the thesis offers a solid framework for understanding the role of happiness in entrepreneurship, as an important self-organized and goal-orientated human activity.

This thesis therefore responds to the call proposed by happiness and psychology scholars (Csikszentmihalyi, 2014; Frederickson, 2001; Lyubomirsky, 2005; Kahneman, 2011), economists (Benz, 2009; Frey, 2008; Thaler, 2015), entrepreneurship and management scholars (Baron, 2008; Cardon et al., 2012; Shir, 2015) for an investigation of the relationship between different dimensions and levels of happiness and

individual entrepreneurship. I hope I have provided insights in dealing with important theoretical and empirical issues that concern each stream of these research areas, but also have offered a more general message in further progressing the study between happiness and entrepreneurship.

As an individual activity or endeavor, entrepreneurship involves risk-taking, creativity, uncertainty and challenge, and charisma and leadership, and this experience represents a unique opportunity for human growth and development. Entrepreneurship, especially high growth orientated entrepreneurship, serves as an important factor for economic growth, innovation, and job creation. According to Global Entrepreneurship Monitor (GEM), increasingly more people enter into entrepreneurship and self-employment in independent ventures or corporate new business activities, and these are becoming one of the largest job categories in many developed and developing countries.

Consequently, the entrepreneurial process continues from entrepreneurs' proactive and persistent pursuit, recognition, enactment, and regulation of positive feelings, positive engagement, and positive purposes. Understanding the value of happiness in driving and developing entrepreneurship offers new and meaningful insights for a variety of stakeholders, including researchers studying in the field of entrepreneurship, individuals seeking to engage in entrepreneurship or to embrace the entrepreneurial mindset, existing founders working with employees in small as well as large organizations, and policymakers or governments who need to establish policies to get the most of happiness for entrepreneurship development.

References

- Acemoglu, D., & Robinson, J.A. (2008). The persistence and change of institutions in the Americas. *Southern Economic Journal*, 75(2), 282-299.
- Acs, Z.J. (2010). High-impact entrepreneurship. In: Z.J. Acs and D.B. Audretsch, *Handbook of Entrepreneurship Research* (pp. 165-182). New York: Springer.
- Acs, Z.J., Desai, S., & Klapper, L.F. (2008). What does “entrepreneurship” data really show? *Small Business Economics*, 31(3), 265-281.
- Agarwal, R., & Gort, M. (1996). The evolution of markets and entry, exit and survival of firms. *Review of Economics and Statistics*, 78(3), 489-498.
- Aghion, P., Caroli, E., & Garcia-Penalosa, C. (1999). Inequality and economic growth: The perspective of the new growth theories. *Journal of Economic Literature*, 37(4), 1615-1660.
- Ahmed, S. (2007). Multiculturalism and the promise of happiness. *New formations*, 63, 121-137.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Alesina, A., & Perotti, R. (1996). Income distribution, political instability, and investment. *European Economic Review*, 40(6), 1203-1228.
- Alvarez, S. A. and Barney, J. B. (2005). How Do Entrepreneurs Organize Firms under Conditions of Uncertainty?, *Journal of Management*, 31(5), 776-793.
- Andersson, D.E. (2017). In Defense of Knightian Entrepreneurship Theory, *International Review of Entrepreneurship*, 15(4), 417-430.
- Appuswamy, R., Gkantsidis, C., Narayanan, D., Hodson, O., & Rowstron, A. (2013). Scale-up vs scale-out for Hadoop: Time to rethink?. In *Proceedings of the 4th Annual Symposium on Cloud Computing* (Article no. 20). Santa Clara, CA: Association for Computing Machinery, Inc. (ACM).
- Arend, R. J., Sarooghi, H., & Burkemper, A.C. (2015). Effectuation as ineffectual? applying the 3E theory-assessment framework to a proposed new theory of entrepreneurship. *Academy of Management Review*, 40(4), 630-651.
- Arend, R. J., Sarooghi, H., & Burkemper, A. C. (2016). Effectuation, not being pragmatic or process theorizing, remains ineffectual, responding to the commentaries. *Academy of Management Review*, 41(3), 549-556.
- Aristotle. (1985). *Nicomachean ethics*. (T. Irwin, Trans.). Indianapolis, IN: Hackett.
- Aspinwall, L. G. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion*, 22(1), 1-32.
- Åstebro, T., Chen, J., & Thompson, P. (2011). Stars and misfits: Self-employment and labor market frictions. *Management Science*, 57(11), 1999-2017.

- Baas, M., De Dreu, C. K., & Nijstad, B. A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus?. *Psychological Bulletin*, 134(6), 779-806.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329-366.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ.
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: Why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, 13(4), 275-294.
- Baron, R. A. (2007). Behavioral and cognitive factors in entrepreneurship: Entrepreneurs as the active element in new venture creation. *Strategic Entrepreneurship Journal*, 1(1-2), 167-182.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2), 328-340.
- Baron, R. A. (2009). Effectual versus predictive logics in entrepreneurial decision making, Differences between experts and novices. Does experience in starting new ventures change the way entrepreneurs think? Perhaps, but for now, "caution" is essential. *Journal of Business Venturing*, 24(4), 310-315.
- Baron, R. A., Hmieleski, K. M., & Henry, R. A. (2012). Entrepreneurs' dispositional positive affect: The potential benefits—and potential costs—of being "up". *Journal of Business Venturing*, 27(3), 310-324.
- Baron, R. A., & Tang, J. (2011). The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism. *Journal of Business Venturing*, 26(1), 49-60.
- Barreto, I. (2012). Solving the entrepreneurial puzzle: The role of entrepreneurial interpretation in opportunity formation and related processes. *Journal of Management Studies*, 49(2), 356-380.
- Barsade, S.G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47(4), 644-675.
- Bateman, T. S. and Barry, B. (2012). Masters of the Long Haul: Pursuing Long-term Work Goals, *Journal of Organizational Behavior*, 33(7), 984-1006.
- Baumol, W. J. (1968). Entrepreneurship in economic theory. *The American Economic Review*, 58(2), 64-71.
- Baumol, W.J. (2010). *The Microtheory of Innovative Entrepreneurship*. Princeton, NJ: Princeton University Press.
- Benz, M., & Frey, B. S. (2003). Being independent raises happiness at work. *Swedish Economic Policy Review*, 11(2), 95-134.

- Bernoster, I., Mukerjee, J. and Thurik, R. (2018). The Role of Affect in Entrepreneurial Orientation, *Small Business Economics*, forthcoming. Online First 6 November 2018. DOI: <https://doi.org/10.1007/s11187-018-0116-3>.
- Birch, D. (1979). *The Job Generation Process*. Cambridge: MIT Program on Neighborhood and Regional Change.
- Blanchflower, D. G. (2004). *Self-employment: More may not be better*. Working paper 0286. National Bureau of Economic Research (NBER), Cambridge, MA.
- Blanchflower, D. G., & Oswald, A. J. (1998). What makes an entrepreneur? *Journal of Labor Economics*, 16(1), 26-60.
- Bless, H., Bohner, G., Schwarz, N. and Strack, F. (1990). Mood and Persuasion: A Cognitive Response Analysis", *Personality and Social Psychology Bulletin*, 16(2), 331-345.
- Bok, D. (2010). *The politics of happiness: What government can learn from the new research on well-being*. Princeton, NJ: Princeton University Press.
- Boyd, B. (1990), Corporate Linkages and Organizational Environment: A Test of the Resource Dependence Model, *Strategic Management Journal*, 11(6), 419-430.
- Bradley, D.E., & Roberts, J.A. (2004). Self-employment and job satisfaction: Investigating the role of self-efficacy, depression, and seniority. *Journal of Small Business Management*, 42(1), 37-58.
- Branson, R. (2013). *Like a virgin: Secrets they won't teach you at business school*. New York: Random House.
- Brettel, M., Mauer, R., Engelen, A., & Küpper, D. (2012). Corporate effectuation, Entrepreneurial action and its impact on R&D project performance. *Journal of Business Venturing*, 27(2), 167-184.
- Brislin, R. W. (1980). Cross-cultural research methods. In I. Altman, A. Rapoport, & J.F. Wohlwill (Eds.), *Environment and culture* (pp. 47-82). New York: Plenum.
- Brockhaus, R. H., Horwitz, P. S., Sexton, D. L., & Smilor, R. W. (1986). The art and science of entrepreneurship. *The Psychology of the Entrepreneur*, 2(11), 25-48.
- Brundin, E. and Gustafsson, V. (2013). Entrepreneurs' Decision Making under Different Levels of Uncertainty: The Role of Emotions", *International Journal of Entrepreneurial Behaviour and Research*, 19(6), 568-591.
- Bruton, G.D., Ahlstrom, D., & Li, H. (2010). Institutional theory and entrepreneurship: Where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3), 421-440.
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations, Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9-30.

- Bygrave, W., & Zacharakis, A. (2008). *Entrepreneurship*. Hoboken, NJ: John Wiley and Sons.
- Byrne, O. and Shepherd, D. A. (2015). Different Strokes for Different Folks: Entrepreneurial Narratives of Emotion, Cognition, and Making Sense of Business Failure, *Entrepreneurship Theory and Practice*, 39(2), 375-405.
- Caliendo, M. & Kritikos, M. (2009). 'I Want to, but I Also Need to': Start-ups Resulting from Opportunity and Necessity. DIW Berlin Discussion Paper No. 966. https://www.diw.de/documents/publikationen/73/diw_01.c.345801.de/dp966.pdf
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Cantril, H. (1965). *The Pattern of Human Concerns*. New Brunswick, NJ: Rutgers University Press.
- Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart, entrepreneurial emotion is a hot topic. *Entrepreneurship Theory and Practice*, 36(1), 1-10.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511-532.
- Carroll, G. R., & Mosakowski, E. (1987). The career dynamics of self-employment. *Administrative Science Quarterly*, 32(4), 570-589.
- Carsrud, A., Brännback, M., Elfving, J., & Brandt, K. (2009). Motivations: The entrepreneurial mind and behavior. In *Understanding the entrepreneurial mind* (pp. 141-165). New York, NY: Springer.
- Carsrud, A., & Brännback, M. (2011). Entrepreneurial motivations: what do we still need to know?. *Journal of Small Business Management*, 49(1), 9-26.
- Carsrud, A. L., & Johnson, R. W. (1989). Entrepreneurship: a social psychological perspective. *Entrepreneurship & Regional Development*, 1(1), 21-31.
- Carver, C. S. and Scheier, M. F. (1998). *On the Self-regulation of Behavior*, New York: Cambridge University Press.
- Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes, A validation study. *Journal of Business Venturing*, 26(3), 375-390.
- Chandler, G. N., Honig, B. and Wiklund, J. (2005). Antecedents, Moderators, and Performance Consequences of Membership Change in New Venture Teams, *Journal of Business Venturing*, 20(5), 705-725.
- Chen, W. (2012). How education enhances happiness: Comparison of mediating factors in four East Asian countries. *Social Indicators Research*, 106(1), 117-131.

- Cheng, S., Stough, R.R., & Jackson, R.W. (2009). Measuring and building high-quality entrepreneurship: A research prospectus. *Innovation–The European Journal of Social Science Research*, 22(3), 329-340.
- Chi, M. T., Glaser, R., & Farr, M. J. (2014). *The nature of expertise*, New York, NY: Psychology Press.
- Cooper, A. C., & Artz, K. W. (1995). Determinants of satisfaction for entrepreneurs. *Journal of Business Venturing*, 10(6), 439-457.
- Cornelissen, J., & Durand, R. (2012). More than just novelty, Conceptual blending and causality. *Academy of Management Review*, 37(1), 152-154.
- Coviello, N.E., & Jones, M.V. (2004). Methodological issues in international entrepreneurship research. *Journal of Business Venturing*, 19(4), 485-508.
- Coviello, N. E., & Joseph, R. M. (2012). Creating major innovations with customers, Insights from small and young technology firms. *Journal of Marketing*, 76(6), 87-104.
- Covin, J. G., & Wales, W. J. (2012). The measurement of entrepreneurial orientation. *Entrepreneurship Theory and Practice*, 36(4), 677-702.
- Csikszentmihalyi, M. (2014). Toward a psychology of optimal experience. In *Flow and the foundations of positive psychology* (pp. 209-226). Dordrecht: Springer.
- Csikszentmihalyi, M., & Larson, R. (2014). *Flow and the foundations of positive psychology*. Dordrecht: Springer.
- Cummins, R. A., McCabe, M. P., Romeo, Y., & Gullone, E. (1994). Validity studies the comprehensive quality of life scale (ComQol), Instrument development and psychometric evaluation on college staff and students. *Educational and Psychological Measurement*, 54(2), 372-382.
- Damasio, A. R. (1994). *Descartes' Error: Emotion, Reason, and the Human Brain*, New York: Avon Books.
- Damasio, A. R. (1999). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*, New York: Harcourt Brace.
- Davidsson, P. (2009). *The entrepreneurship research challenge*. Cheltenham, UK: Edward Elgar.
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14.
- Delgado-García, J. B., Rodríguez-Escudero, A. I., & Martín-Cruz, N. (2012). Influence of affective traits on entrepreneur's goals and satisfaction. *Journal of Small Business Management*, 50(3), 408-428.
- Delmar, F., & Davidsson, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs. *Entrepreneurship & Regional Development*, 12(1), 1-23.

- Delmar, F., & Wiklund, J. (2008). The effect of small business managers' growth motivation on firm growth: A longitudinal study. *Entrepreneurship Theory and Practice*, 32(3), 437-457.
- Dequech, D. (2011). Uncertainty: A typology and refinements of existing concepts, *Journal of Economic Issues*, 45(3), 621-640.
- Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, 29(1), 52-73.
- Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2009). Effectual versus predictive logics in entrepreneurial decision-making. Differences between experts and novices. *Journal of Business Venturing*, 24(4), 287-309.
- DeYoung, C.G., (2010). Impulsivity as a personality trait. In: Vohs, K.D., Baumeister, R.F. (Eds.), *Handbook of Self-regulation: Research, Theory, and Applications*. The Guilford Press, New York, pp. 485-502.
- Dheer, R.J. (2017). Cross-national differences in entrepreneurial activity: Role of culture and institutional factors. *Small Business Economics*, 48(4), 813-842.
- Diener, E. (1995). A value based index for measuring national quality of life. *Social indicators research*, 36(2), 107-127.
- Diener, E., Colvin, C. R., Pavot, W. G. and Allman, A. (1991). The psychic costs of intense positive affect, *Journal of Personality and Social Psychology*, 61(3), 492-503.
- Diener, E., & Diener, M. (2009). *Cross-cultural correlates of life satisfaction and self-esteem*. In *Culture and positive psychology* (pp. 71-91). Dordrecht: Springer.
- Diener, E., Lucas, R., Helliwell, J. F., Helliwell, J., & Schimmack, U. (2009). *Well-being for public policy*. Oxford: Oxford University Press.
- Diener, E., Wirtz, D., R., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener. (2009). New measures of well-being. In E. Diener (Ed.), *Social indicators research series: Vol. 39. Assessing well-being: The collected works of Ed Diener* (pp. 247-266). New York, NY, US: Springer Science + Business Media.
- Douglas, E. J., & Shepherd, D. A. (2000). Entrepreneurship as a utility maximizing response. *Journal of Business Venturing*, 15(3), 231-251.
- Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81-90.
- Downey, H. K., Hellriegel, D. and Slocum Jr, J. W. (1975). Environmental uncertainty: The construct and its application, *Administrative Science Quarterly*, 20(4), 613-629.
- Dreisbach, G., & Goschke, T. (2004). How positive affect modulates cognitive control: reduced perseveration at the cost of increased distractibility. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30(2), 343.

- Eich, E. (1995). Searching for mood dependent memory. *Psychological Science*, 6(2), 67-75.
- Ellsberg, D. (1961). Risk, ambiguity, and the savage axioms, *The Quarterly Journal of Economics*, 75(4), 643-669.
- Erez, A., & Isen, A. M. (2002). The influence of positive affect on the components of expectancy motivation. *Journal of Applied psychology*, 87(6), 1055.
- Ericsson, K.A., (2006). An introduction to the Cambridge handbook of expertise and expert performance. In: Ericsson, K.A., Charness, N., Feltovich, P.J., Hoffman, R.R. (Eds.), *The Cambridge handbook of expertise and expert performance*. Cambridge University Press, Cambridge, U.K., pp. 3–20.
- Evans, D., Jovanovic, B., (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, 97, 808–827.
- Fallah, B.N., & Partridge, M. (2007). The elusive inequality-economic growth relationship: Are there differences between cities and the countryside? *The Annals of Regional Science*, 41(2), 375-400.
- Fisher, G. (2012). Effectuation, causation, and bricolage, A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, 36(5), 1019-1051.
- Flanagan, O. (2007). *The really hard problem, Meaning in a material world*. Cambridge, MA: MIT Press.
- Foo, M. D. (2011). Emotions and entrepreneurial opportunity evaluation, *Entrepreneurship Theory and Practice*, 35(2), 375-393.
- Foo, M. D., Uy, M. A., & Baron, R. A. (2009). How do feelings influence effort? An empirical study of entrepreneurs' affect and venture effort. *Journal of Applied Psychology*, 94(4), 1086.
- Foo, M. D., Uy, M. A., & Murnieks, C. (2015). Beyond affective valence: Untangling valence and activation influences on opportunity identification. *Entrepreneurship Theory and Practice*, 39(2), 407-431.
- Forbes, D. P. (2005). Are Some Entrepreneurs More Overconfident Than Others? *Journal of Business Venturing*, 20(5), 623-640.
- Fordyce, M. W. (1988). A review of research on the happiness measures: A sixty second index of happiness and mental health. *Social Indicators Research*, 20(4), 355-381.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM), *Psychological Bulletin*, 117(1), 39-66.
- Forgas, J.P. (2000). Managing moods: Toward a dual-process theory of spontaneous mood regulation. *Psychological Inquiry*, 11(3), 172-177.
- Forgas, J. P., Baumeister, R. F. and Tice, D. M. (2009). "The Psychology of Self-regulation: An Introductory Review", in J. P. Forgas. R. F. Baumeister. and D. M. Tice (Eds.), *Psychology of Self-regulation: Cognitive, Affective and Motivational Processes* (pp. 1–20), New York, NY: Psychology Press.

- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist*, 56(3), 218.
- Freeman, M. A., Staudenmaier, P. J., Zisser, M. R., & Andresen, L. A. (2018). The prevalence and co-occurrence of psychiatric conditions among entrepreneurs and their families. *Small Business Economics*, 1-20.
- Frey, B.S., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic Literature*, 40(2), 402–435.
- Frey, B. S. (2008). *Happiness: A revolution in economics*. Cambridge, MA: MIT press.
- Frijda, N. H. (1993). Moods, emotion episodes, and emotions, in M. Lewis. and J. M. Haviland (Eds.), *Handbook of Emotions* (pp. 381-403), New York: Guilford Press.
- Frijda, N. H. (1999). Emotions and hedonic experience, in D. Kahneman, E. Diener and N. Schwarz. (Eds.), *Well-being: Foundations of Hedonic Psychology*, NY: Russell Sage Foundation.
- Gaglio, C. M., & Katz, J. A. (2001). The psychological basis of opportunity identification: Entrepreneurial alertness. *Small Business Economics*, 16(2), 95-111.
- Galor, O. (2009). Inequality and economic development: An overview. Working Paper, Brown University, Department of Economics, No. 2009-3.
- Gan, L., Yin, Z., Jia, N., Xu, S. and Ma, S. (2013). *Data You Need to Know about China*, New York: Springer.
- Gartner, W. B. (1988). “Who is an entrepreneur?” is the wrong question. *American Journal of Small Business*, 12(4), 11-32.
- Gartner, W.B., Shaver, K.G., & Liao, J.J. (2008). Opportunities as attributions: Categorizing strategic issues from an attributional perspective. *Strategic Entrepreneurship Journal*, 2(4), 301-315.
- Gelman, A., & Hill, J. (2006). *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge, UK: Cambridge University Press.
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226.
- Gilbert, B. A., Audretsch, D. B., & McDougall, P. P. (2004). The emergence of entrepreneurship policy. *Small Business Economics*, 22(3-4), 313-323.
- Giotopoulos, I., Kontolaimou, A., & Tsakanikas, A. (2017). Drivers of high-quality entrepreneurship: what changes did the crisis bring about?. *Small Business Economics*, 48(4), 913-930.

- Gollwitzer, P.M. (1990). Action phases and mind-sets. In: E.T. Higgins and R.M. Sorrentino (Eds.), *Handbook of Motivation and Cognition: Foundations of Social Behavior, Volume 2*, New York: The Guilford Press, pp. 53-92.
- Gollwitzer, P. M. and Bayer, U. (1999). Deliberative versus implemental mindsets in the control of action, in S. Chaiken and Y. Trope (Eds.), *Dual-process Theories in Social Psychology* (pp. 403-422), New York: Guilford Press.
- Griffin, J. (1986). Well-being: Its meaning, measurement and moral importance.
- Griffitt, W. (1970). Environmental effects on interpersonal affective behavior: Ambient effective temperature and attraction. *Journal of Personality and Social Psychology*, 15(3), 240.
- Guerra, G., & Patuelli, R. (2016). The role of job satisfaction in transitions into self-employment. *Entrepreneurship Theory and Practice*, 40(3), 543-571.
- Gurin, G., Veroff, J. and Feld, S. (1960). *Americans View their Mental Health: A Nationwide Interview Survey*, Oxford, England: Basic Books.
- Guo, G., & Zhao, H. (2000). Multilevel modeling for binary data. *Annual Review of Sociology*, 26(1), 441-462.
- Gupta, V. K., Chiles, T. H., & McMullen, J. S. (2016). A process perspective on evaluating and conducting effectual entrepreneurship research. *Academy of Management Review*, 41(3), 540-544.
- Hahn, V. C., Frese, M., Binnewies, C., & Schmitt, A. (2012). Happy and proactive? the role of hedonic and eudaimonic Well-Being in business owners' personal initiative. *Entrepreneurship Theory and Practice*, 36(1), 97-114.
- Hair, J.F., Anderson, R.E., Babin, B.J., et al. (2010). *Multivariate Data Analysis: A Global Perspective*. Upper Saddle River, NJ: Pearson.
- Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political economy*, 108(3), 604-631.
- Hatano, G., & Inagaki, K. (1984). Two courses of expertise. *Research and Clinical Center for Child Development Annual Report*, 6, 27-36.
- Haybron, D. (2007). Life satisfaction, ethical reflection, and the science of happiness. *Journal of Happiness Studies*, 8(1), 99-138.
- Haynie, J. M., Shepherd, D., Mosakowski, E., & Earley, P. C. (2010). A situated metacognitive model of the entrepreneurial mindset. *Journal of business venturing*, 25(2), 217-229.
- Hayton, J. C. and Cholakova, M. (2012). The role of affect in the creation and intentional pursuit of entrepreneurial ideas, *Entrepreneurship Theory and Practice*, 36(1), 41-67.
- Hayward, M.L., Forster, W.R., Sarasvathy, S.D., & Fredrickson, B.L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing*, 25(6), 569-578.

- Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational versus volitional states of mind. *Motivation and Emotion*, 11(2), 101-120.
- Helliwell, J., Layard, R., & Sachs, J. (2017). *World Happiness Report 2017*, New York: Sustainable Development Solutions Network.
- Hermans, J., Vanderstraeten, J., Van Witteloostuijn, A., Dejardin, M., Ramdani, D., & Stam, E. (2015). Ambitious entrepreneurship: A review of growth aspirations, intentions, and expectations, In: A.C. Corbett, J.A. Katz and A. McKelvie (eds.), *Entrepreneurial Growth: Individual, Firm, and Region* (pp. 127-160), Bingley, UK: Emerald.
- Hisrich, R. A., Peters, M. P., & Shepherd, D. A. (2013). *Entrepreneurship*. McGraw-Hill, New York: NY.
- Hitt, M. A., Beamish, P. W., Jackson, S. E., & Mathieu, J. E. (2007). Building theoretical and empirical bridges across levels: Multilevel research in management. *Academy of Management Journal*, 50(6), 1385-1399.
- Hmieleski, K. M. and Baron, R. A. (2009). Entrepreneurs' optimism and new venture performance: A social cognitive perspective, *Academy of Management Journal*, 52(3), 473-488.
- Hoetker, G. (2007). The use of logit and probit models in strategic management research: Critical issues, *Strategic Management Journal*, 28(4), 331-343.
- Hofstede, G. (1980). Culture and organizations. *International Studies of Management and Organization*, 10(4), 15-41.
- Hoskisson, R.E., Covin, J., Volberda, H.W., & Johnson, R.A. (2011). Revitalizing entrepreneurship: The search for new research opportunities. *Journal of Management Studies*, 48(6), 1141-1168.
- Huppert, F. A. (2009). Psychological Positive psychology, Evidence Regarding its Causes and Consequences. *Applied Psychology, Health and Well-Being*, 1(2), 137-164.
- Isen, A.M. (1987). Positive affect, cognitive processes, and social behavior. *Advances in Experimental Social Psychology*, 20, 203-253.
- Isen, A. M. (2000). Some perspectives on positive affect and self-regulation, *Psychological Inquiry*, 11(3), 184-187.
- Isen, A. M. (2007). Positive affect, cognitive flexibility, and self-control. *Persons in context: Building a science of the individual*, 48(3), 130-147.
- Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology*, 47(6), 1206.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52(6), 1122-1131.

- Isen, A.M., & Reeve, J. (2005). The influence of positive affect on intrinsic and extrinsic motivation: Facilitating enjoyment of play, responsible work behavior, and self-control. *Motivation and Emotion*, 29(4), 295-323.
- Ivanova, S., Treffers, T., & Langerak, F. (2018). Emotional paths leading to opportunity desirability and feasibility beliefs through controllability. *International Small Business Journal*, 36(5), 546-573.
- Izard, C. E. (1993). Four systems for emotion activation: Cognitive and noncognitive processes, *Psychological Review*, 100(1), 68-90.
- Jenkinson, C., & McGee, H. M. (1998). *Health status measurement: a brief but critical introduction*. Abingdon, Oxon, England. Radcliffe Publishing.
- Jia, F., & Zhang, Y. (2018). The impact of positive affect on entrepreneurial motivational outcomes – A self-regulatory perspective. *International Review of Entrepreneurship*, 16(4), 627-656.
- Jiang, Y., & RÜling, C. C. (2017). Opening the black box of effectuation processes, characteristics and dominant types. *Entrepreneurship Theory and Practice*, 43(1), 171-202.
- Johnson, E. and Tversky, A. (1983). Affect, generalization, and the perception of risk, *Journal of Personality and Social Psychology*, 45(1), 20-31.
- Kahneman, D., & Egan, P. (2011). *Thinking, fast and slow* (Vol. 1). New York: Farrar, Straus and Giroux.
- Källner, E. & Nyström, K. (2018). Entrepreneurial motivation and idea generation by displaced employees. *International Review of Entrepreneurship* 16(3), 383–404.
- Kanfer, R. (1991). Motivation theory and industrial and organizational psychology, in M. D. Dunnette and L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*, Vol. 1 (pp. 76–170), Palo Alto, CA: Consulting Psychologists Press.
- Kanfer, R. and Ackerman, P. L. (1989). Motivational and cognitive abilities: An integrative/aptitude-treatment interaction approach to skill acquisition, *Journal of Applied Psychology*, 74(4), 657-690.
- Kanfer, R., Chen, G. and Pritchard, R. D. (2008). The three C's of work motivation: Content, context and change", in R. Kanfer, G. Chen. and R. D. Pritchard (Eds.), *Work Motivation: Past, Present, and Future* (pp. 1–16). New York: Routledge.
- Kaplan, S., Bradley, J.C., Luchman, J.N., & Haynes, D. (2009). On the role of positive and negative affectivity in job performance: A meta-analytic investigation. *Journal of Applied Psychology*, 94(1), 162-176.
- Kato, S., & Wiklund, J. (2011). Doing Good To Feel Good-A Theory Of Entrepreneurial Action Based In Hedonic Psychology. *Frontiers of Entrepreneurship Research*, 31(4), 1.

- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The worldwide governance indicators: Methodology and analytical issues. *Hague Journal on the Rule of Law*, 3(2), 220-246.
- Keats, B. W., & Hitt, M. A. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, 31(3), 570-598.
- Kesebir, P., & Diener, E. (2008). In pursuit of happiness: Empirical answers to philosophical questions. *Perspectives on Psychological Science*, 3(2), 117-125.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life, *Journal of Health and Social Behavior*, 43(2), 207-222.
- Keyes, C. L. (2007). Promoting and protecting mental health as flourishing, A complementary strategy for improving national mental health. *American Psychologist*, 62(2), 95-108.
- Khandwalla, P. N. (1977). *The design of organizations*. New York: Harcourt Brace Jovanovich.
- Kirzner, I. M. (1978). Entrepreneurship, entitlement, and economic justice. *Eastern Economic Journal*, 4(1), 9-25.
- Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach, *Journal of Economic Literature*, 35(1), 60-85.
- Klein, H. J. (1991). Further evidence on the relationship between goal setting and expectancy theories, *Organizational Behavior and Human Decision Processes*, 49(2), 230-257.
- Klein, H. J., Wesson, M. J., Hollenbeck, J. R. and Alge, B. J. (1999). Goal commitment and the goal-setting process: Conceptual clarification and empirical synthesis, *Journal of Applied Psychology*, 84(6), 885-896.
- Knight, F. (1921). *Risk, Uncertainty and Profit*, New York: Houghton Mifflin.
- Koellinger, P., Minniti, M., & Schade, C. (2007). "I think I can, I think I can": Overconfidence and entrepreneurial behavior. *Journal of Economic Psychology*, 28(4), 502-527.
- Kristjánsson, K. (2010). Positive psychology, happiness, and virtue, The troublesome conceptual issues. *Review of General Psychology*, 14(4), 296-310.
- Krueger, A. O. (1993). Virtuous and vicious circles in economic development. *The American Economic Review*, 83(2), 351-355.
- Krueger Jr, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31(1), 123-138.
- Krueger Jr, N. F. and Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs, *Entrepreneurship Theory and Practice*, 18(3), 91-104.

- Krueger, N.F., Reilly, M.D., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5), 411-432.
- Kulchina, E. (2016). Personal preferences, entrepreneurs' location choices, and firm performance. *Management Science*, 62(6), 1814-1829.
- Kuznets, S. (1955). Economic growth and income inequality. *The American Economic Review*, 45(1), 1-28.
- Landstrom, H. (2007). *Pioneers in entrepreneurship and small business research* (Vol. 8). Springer Science & Business Media.
- Lange, T. (2012). Job satisfaction and self-employment: autonomy or personality? *Small Business Economics*, 38(2), 165-177.
- Larsen, R. J. and Diener, E. (1987). Affect intensity as an individual difference characteristic: A review, *Journal of Research in Personality*, 21(1), 1-39.
- Larsen, R. J. and Fredrickson, B. L. (1999). Measurement issues in emotion research, in D. Kahneman, E. Diener and N. Schwarz (Eds.), *Well-being: The Foundations of Hedonic Psychology* (pp. 40-60), New York: Russell Sage Foundation.
- Layard, R. (2011). *Happiness: Lessons from a new science*. Penguin UK.
- Levie, J., & Autio, E. (2011). Regulatory burden, rule of law, and entry of strategic entrepreneurs: An international panel study. *Journal of Management Studies*, 48(6), 1392-1419.
- Locke, E. A. and Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance*, Englewood Cliffs, NJ: Prentice-Hall.
- Locke, E. A., Motowidlo, S. J. and Bobko, P. (1986). Using self-efficacy theory to resolve the conflict between goal-setting theory and expectancy theory in organizational behavior and industrial/organizational psychology", *Journal of Social and Clinical Psychology*, 4(3), 328-338.
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139-161.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71(3), 616-628.
- Lucas, R. E., Diener, E. and Larsen, R. J. (2003). Measuring positive emotions, in S. J. Lopez and C. R. Snyder (Eds.), *Positive Psychological Assessment: A Handbook of Models and Measures* (pp. 201-218), Washington, DC: American Psychological Association.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803-855.
- Mackie, D. M. and Worth, L. T. (1989). Processing deficits and the mediation of positive affect in persuasion, *Journal of Personality and Social Psychology*, 57(1), 27-40.

- Markman, G. D., Baron, R. A. and Balkin, D. B. (2005). Are perseverance and self-efficacy costless? Assessing entrepreneurs' regretful thinking", *Journal of Organizational Behavior*, 26(1), 1-19.
- Maslow, A. H. (1943). A theory of human motivation, *Psychological Review*, 50(4), 370-396.
- McClelland, D. C. (1985). How motives, skills, and values determine what People do, *American Psychologist*, 40(7), 812-825.
- McKelvie, A., DeTienne, D. R., & Chandler, G. N. (2013). What is the appropriate dependent variable in effectuation research? *Frontiers of Entrepreneurship Research*, 33(4), 4.
- Meyer, J.D., Gaschke, Y.N., Braverman, D.L. and Evans, T.W. (1992). Mood-congruent judgment is a general effect", *Journal of Personality and Social Psychology*, 63(1), 119-132.
- Miles, R. E., and Snow, C. C. (1978). *Organizational Strategy, Structure, and Process*, New York: McGraw-Hill.
- Miller K.D. (2007). Risk and rationality in entrepreneurial processes. *Strategic Entrepreneurship Journal*, 1(1-2), 57-74.
- Milliken, F.J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty, *Academy of Management Review*, 12(1), 133-143.
- Morris, R. (2012). 2011 high-impact entrepreneurship global report. *Endeavor & GEM*, <http://www.gemconsortium.org/docs/download/295>.
- Murtha, T.P., & Lenway, S.A. (1994). Country capabilities and the strategic state: How national political institutions affect multinational corporations' strategies. *Strategic Management Journal*, 15(S2): 113-129.
- Nambisan, S. and Baron, R. A. (2013). Entrepreneurship in innovation ecosystems: Entrepreneurs' self-regulatory processes and their implications for new venture success, *Entrepreneurship Theory and Practice*, 37(5), 1071-1097.
- Naudé, W., Amorós, J.E., & Cristi, O. (2014). "Surfeiting, the appetite may sicken": Entrepreneurship and happiness. *Small Business Economics*, 42(3), 523-540.
- Neter, J., Wasserman, W. and Kutner, M. H. (1990). *Applied Linear Models, Regression, Analysis of Variance and Experimental Designs*, Boston, MA: RD Irwin.
- Niammuad, D., Napompech, K., & Suwanmaneepong, S. (2014). The mediating effect of opportunity recognition on incubated—entrepreneurial innovation. *International Journal of Innovation Management*, 18(3), 1440005.
- Noddings, N. (2003). *Happiness and Education*. Cambridge, UK: Cambridge University Press.

- Nussbaum, M. C. (1992). *Love's knowledge: Essays on philosophy and literature*. OUP USA.
- Nussbaum, M. C. (2008). Who is the happy warrior? Philosophy poses questions to psychology. *The Journal of Legal Studies*, 37(S2), 81-113.
- Oatley, K. and Johnson-Laird, P. N. (1996). The communicative theory of emotions: Empirical tests, mental models, and implications for social interaction", in L. L. Martin and A. Tesser (Eds.), *Striving and Feeling: Interactions among Goals, Affect, and Self-Regulation* (pp. 363-393), Mahwah, NJ: Lawrence Erlbaum Associates.
- O'Connor, G.C., & Rice, M.P. (2001). Opportunity recognition and breakthrough innovation in large established firms. *California Management Review*, 43(2), 95-116.
- OECD (2011). *Society at a Glance 2011: OECD Social Indicators*, Paris: OECD Publishing. http://dx.doi.org/10.1787/soc_glance-2011-en
- Omoredede, A., Thorgren, S., & Wincent, J. (2015). Entrepreneurship psychology, A review. *International Entrepreneurship and Management Journal*, 11(4), 743-768.
- O'Reilly III, C. A., & Tushman, M. L. (2013). Organizational ambidexterity: Past, present, and future. *Academy of Management Perspectives*, 27(4), 324-338.
- O'Shea, D., Buckley, F. and Halbesleben, J. (2017). Self-regulation in entrepreneurs: Integrating action, cognition, motivation, and emotions, *Organizational Psychology Review*, 7(3), 250-278.
- Packard, M. D., Clark, B. B. and Klein, P. G. (2017). Uncertainty types and transitions in the entrepreneurial process, *Organization Science*, 28(5), 840-856.
- Parker, S. K., Bindl, U. K. and Strauss, K. (2010). Making things happen: A model of proactive motivation, *Journal of Management*, 36(4), 827-856.
- Parker, S.C., (2009). *The Economics of Entrepreneurship*. Cambridge University Press, Cambridge.
- Parker, S.C., van Praag, C., (2006). Schooling, capital constraints and entrepreneurial performance: the endogenous triangle. *Journal of Business Economics and Statistics*, 24(4), 416-431.
- Perry, J. T., Chandler, G. N., & Markova, G. (2012). Entrepreneurial effectuation, A review and suggestions for future research. *Entrepreneurship Theory and Practice*, 36(4), 837-861.
- Persson, T., & Tabellini, G. (1994). Is inequality harmful for growth? *The American Economic Review*, 84(3), 600-621.
- Perwin, L. (2003). *The Science of Personality*. Oxford: Oxford University Press.
- Peterson, C. (2006). *A primer in positive psychology*. Oxford: Oxford University Press.

- Peterson, M. F., Arregle, J. L., & Martin, X. (2012). Multilevel models in international business research. *Journal of International Business Studies*, 43(5), 451-457.
- Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction, The full life versus the empty life. *Journal of Happiness Studies*, 6(1), 25-41.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research, a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Pouwels, B., Siegers, J., & Vlasblom, J.D. (2008). Income, working hours and happiness. *Economics Letters*, 99(1), 72-74.
- Rabe-Hesketh, S., Skrondal, A., & Pickles, A. (2005). Maximum likelihood estimation of limited and discrete dependent variable models with nested random effects. *Journal of Econometrics*, 128(2), 301-323.
- Read, S., Dew, N., Sarasvathy, S. D., Song, M., & Wiltbank, R. (2009). Marketing under uncertainty, The logic of an effectual approach. *Journal of Marketing*, 73(3), 1-18.
- Read, S., & Sarasvathy, S. D. (2005). Knowing what to do and doing what you know, Effectuation as a form of entrepreneurial expertise. *The Journal of Private Equity*, 9(1), 45-62.
- Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. (2016). Response to Arend, Sarooghi, and Burkemper (2015), Cocreating effectual entrepreneurship research. *Academy of Management Review*, 41(3), 528-536.
- Read, S., Song, M., & Smit, W. (2009). A meta-analytic review of effectuation and venture performance. *Journal of Business Venturing*, 24(6), 573-587.
- Reuber, A. R., Fischer, E., & Coviello, N. (2016). Deepening the dialogue, New directions for the evolution of effectuation theory. *Academy of Management Review*, 41(3), 536-540.
- Reymen, I. M., Andries, P., Berends, H., Mauer, R., Stephan, U., & Van Burg, E. (2015). Understanding dynamics of strategic decision making in venture creation, a process study of effectuation and causation. *Strategic Entrepreneurship Journal*, 9(4), 351-379.
- Reynolds, P.D., (2000). National panel study of U.S. business startups: background and methodology. In: Katz, J. (Ed.), *Advances in Entrepreneurship, Firm Emergence and Growth* (Vol. 4): Databases for the Study of Entrepreneurship. Elsevier, Amsterdam, pp. 153-227.
- Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P., & Chin, N. (2005). Global Entrepreneurship Monitor: Data collection design and implementation 1998-2003. *Small Business Economics*, 24(3), 205-231.

- Reynolds, P.D., Hay, M., & Camp, S.M. (1999). *Global Entrepreneurship Monitor: 1999 Executive Report*. Wellesley, MA: Babson College.
- Rosa, P., Kodithuwakku, S., & Balunywa, W. (2006). Entrepreneurial Motivation in Developing Countries: What does 'Necessity' and 'Opportunity' Entrepreneurship Really Mean? *Frontiers of Entrepreneurship Research*, 26(20), 531-544.
- Russell, J. A. (1980). A circumplex model of affect, *Journal of Personality and Social Psychology*, 39(6), 1161-1178.
- Russel, J. A., Weiss, A., & Mendelsohn, G. A. (1989). Affect grid, A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology*, 57(3), 493-502.
- Russell, J. A. and Barrett, L. F. (1999). Core affect, prototypical emotional episodes, and other things called emotion: Dissecting the elephant", *Journal of Personality and Social Psychology*, 76(5), 805-819.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and positive psychology. *American Psychologist*, 55(1), 68-78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials, A review of research on hedonic and eudaimonic positive psychology. *Annual Review of Psychology*, 52(1), 141-166.
- Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65(3), 529-565.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological positive psychology. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Ryff, C. D., & Singer, B. (1996). Psychological positive psychology, Meaning, measurement, and implications for psychotherapy research. *Psychotherapy and Psychosomatics*, 65(1), 14-23.
- Sarasvathy, S. D. (2001). Causation and effectuation, Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.
- Sarasvathy, S. D. (2008). *Effectuation, Elements of entrepreneurial expertise*. Cheltenham, U.K. and Northampton, Mass.: Edward Elgar.
- Sarasvathy, S.D., Dew, N., Velamuri, S.R., & Venkataraman, S. (2010). Three views of entrepreneurial opportunity. In: Z.J. Acs and D.B. Audretsch, *Handbook of Entrepreneurship Research*, New York: Springer, pp. 77-96.
- Schere, J. L. (1982). Tolerance of Ambiguity as a Discriminating Variable Between Entrepreneurs and Managers. In *Academy of management proceedings* (Vol. 1982, No. 1, pp. 404-408). Briarcliff Manor, NY 10510: Academy of Management.

- Schindehutte, M., Morris, M., & Allen, J. (2006). Beyond achievement: Entrepreneurship as extreme experience. *Small Business Economics*, 27(4-5), 349-368.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437-453
- Schumpeter, J. A. (1934). Change and the Entrepreneur. *Essays of JA Schumpeter*.
- Schwab, K. 2010 (Ed.). *The Global Competitiveness Report 2010-2011*. Geneva: World Economic Forum.
- Schwarz, N. (1990). Feelings as Information: Informational and Motivational Functions of Affective States, in E. T. Higgins and R. M. Sorrentino (Eds.), *Handbook of Motivation and Cognition: Foundations of Social Behavior*, Vol. 2 (pp. 527-561), New York: Guilford Press.
- Schwarz, N. (2001). Feelings as Information: Implications for Affective Influences on Information Processing, in L. Martin and G. Clore (Eds.), *Theories of Mood and Cognition: A User's Guidebook* (pp. 159-176), Mahwah, NJ: Lawrence Erlbaum Associates.
- Seligman, M. E. (2002). *Authentic happiness, Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- Seligman, M. E., & Csikszentmihalyi, M. (2014). *Positive psychology, An introduction*. In Flow and the foundations of positive psychology (pp. 279-298). Netherlands: Springer.
- Sen, A. (1985). Well-being, agency and freedom: the Dewey lectures 1984. *The journal of philosophy*: 169-221.
- Sen, A. (1999). Development as freedom. New York, NY: Alfred Knopf.
- Seo, M. G., Barrett, L. F. and Bartunek, J. M. (2004). The role of affective experience in work motivation, *Academy of Management Review*, 29(3), 423-439.
- Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33(2), 141-149.
- Shane, S., Locke, E. A. and Collins, C. J. (2003). Entrepreneurial motivation, *Human Resource Management Review*, 13(2), 257-279.
- Shane, S. and Venkataraman, S. (2000). The promise of entrepreneurship as a field of research", *Academy of Management Review*, 25(1), 217-226.
- Shaver, K. G. (2003). The social psychology of entrepreneurial behavior. In *Handbook of entrepreneurship research* (pp. 331-357). Springer, Boston, MA.
- Shaver, K. G., & Scott, L. R. (1992). Person, process, choice: The psychology of new venture creation. *Entrepreneurship theory and practice*, 16(2), 23-46.

- Shepherd, D.A. (2015). Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing* 30(4), 489-507.
- Shepherd, D.A., & Krueger, N.F. (2002). An intentions-based model of entrepreneurial teams' social cognition. *Entrepreneurship Theory and Practice*, 27(2), 167-185.
- Sharfman, M. P. and Dean Jr, J. W. (1991). Conceptualizing and measuring the organizational environment: A multidimensional approach", *Journal of Management*, 17(4), 681-700.
- Shir, N. (2015). *Entrepreneurial Well-Being: The Payoff Structure of Business Creation*. Stockholm School of Economics.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations, uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420-428.
- Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American Economic Review*, 49(3), 253-283.
- Sitkin, S. B., & Weingart, L. R. (1995). Determinants of risky decision-making behavior: A test of the mediating role of risk perceptions and propensity. *Academy of management Journal*, 38(6), 1573-1592.
- Smilor, R. W., & Sexton, D.L. (1996). *Leadership and entrepreneurship: Personal and organizational development in entrepreneurial ventures*. Westport, CT: Quorum Books.
- Spender, J.C. (1989). *Industry Recipes*, Oxford, UK: Basil Blackwell.
- Stam, E., Thurik, R. and Van der Zwan, P. (2010). Entrepreneurial exit in real and imagined markets, *Industrial and Corporate Change*, 19(4), 1109-1139.
- Stenholm, P., Acs, Z.J., & Wuebker, R. (2013). Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. *Journal of Business Venturing*, 28(1), 176-193.
- Stiglitz, J. (2009). The global crisis, social protection and jobs. *International Labour Review*, 148(1-2), 1-13.
- Strack, F., Schwarz, N., & Wänke, M. (1991). Semantic and pragmatic aspects of context effects in social and psychological research. *Social Cognition*, 9(1), 111-125.
- Staw, B.M. (1984). Organizational Behavior: A Review and Reformulation of the Field's Outcome Variables, *Annual Review of Psychology*, 35(1), 627-666.
- Tatarkiewicz, W. (1976). Analysis of happiness. Tiberius, V. (2006). Well-Being, Psychological research for philosophers. *Philosophy Compass*, 1(5), 493-505.
- Thaler, R. H., & Ganser, L. J. (2015). *Misbehaving: The making of behavioral economics* (p. 358). New York, NY: WW Norton.

- Tice, D. M., Baumeister, R. F., Shmueli, D. and Muraven, M. (2007). Restoring the self: Positive affect helps improve self-regulation following ego depletion”, *Journal of Experimental Social Psychology*, 43(3), 379-384.
- Tong, T.W., Reuer, J.J., & Peng, M.W. (2008). International joint ventures and the value of growth options. *Academy of Management Journal*, 51(5), 1014-1029.
- Valliere, D., & Peterson, R. (2009). Entrepreneurship and economic growth: Evidence from emerging and developed countries. *Entrepreneurship and Regional Development*, 21(5-6), 459-480.
- Van der Zwan, P., & Thurik, R. (2017). Entrepreneurship as a Process: Empirical Evidence for Entrepreneurial Engagement Levels, in: G. Ahmetoglu, T. Chamorro-Premuzic, B. Klinger & T. Karcisky (Eds.), *The Wiley Handbook of Entrepreneurship* (pp. 25-35). Chichester, UK: John Wiley & Sons Ltd.
- Van Gelderen, M., Kautonen, T., & Fink, M. (2015). From entrepreneurial intentions to actions: Self-control and action-related doubt, fear, and aversion. *Journal of Business Venturing*, 30(5), 655-673.
- Vaquero, L. M., Rodero-Merino, L., & Buyya, R. (2011). Dynamically scaling applications in the cloud. *ACM SIGCOMM Computer Communication Review*, 41(1), 45-52.
- Veenhoven, R. (1996). Developments in satisfaction-research. *Social Indicators Research*, 37(1), 1-46.
- Veenhoven, R. (1999). Quality-of-life in individualistic society. *Social indicators research*, 48(2), 159-188.
- Veenhoven, R. (2003). Hedonism and happiness. *Journal of Happiness Studies*, 4(4), 437-457.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. *Advances in entrepreneurship, firm emergence and growth*, 3(1), 119-138.
- Verheul, I., Wennekers, S., Audretsch, D.B., & Thurik, A.R. (2002). An eclectic theory of entrepreneurship: Policies, institutions and culture, in: D.B., Audretsch, A.R. Thurik, I. Verheul and S. Wennekers (eds.), *Entrepreneurship: Determinants and Policy in a European-US Comparison*, Boston/Dordrecht: Kluwer Academic Publishers, pp. 11–81.
- Vittersø, J., Sørholt, Y., Hetland, A., Thoresen, I. A., & Røysamb, E. (2010). Was Hercules happy? Some answers from a functional model of human positive psychology. *Social Indicators Research*, 95(1), 1-18.
- Vroom, V. H. (1964). *Work and Motivation*, New York: Wiley.
- Wach, D., Stephan, U., & Gorgievski, M. (2016). More than money: Developing an integrative multi-factorial measure of entrepreneurial success. *International Small Business Journal*, 34(8), 1098-1121.

- Waterman, A. S. (2008). Reconsidering happiness, A eudaimonist's perspective. *The Journal of Positive Psychology*, 3(4), 234-252.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect, The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070.
- Watson, T. J. (2013). Entrepreneurial action and the Euro-American social science tradition, pragmatism, realism and looking beyond 'the entrepreneur'. *Entrepreneurship & Regional Development*, 25(1-2), 16-33.
- Wegener, D. T. and Petty, R. E. (1996). Effects of Mood on Persuasion Processes: Enhancing, Reducing, and Biasing Scrutiny of Attitude-Relevant Information, in L. L. Martin and A. Tesser (Eds.), *Striving and Feeling: Interactions among Goals, Affect, and Self-Regulation* (pp. 329-362), Mahwah, NJ: Lawrence Erlbaum Associates.
- Weick, K. E. (1979). *The social psychology of organizing (Topics in social psychology series)*. Columbus, OH: McGraw-Hill Humanities.
- Weiss, H. M. (2002). Introductory comments: Antecedents of emotional experiences at work. *Motivation and Emotion*, 26(1), 1-2.
- Welter, C., Mauer, R., & Wuebker, R. J. (2016). Bridging behavioral models and theoretical concepts, effectuation and bricolage in the opportunity creation framework. *Strategic Entrepreneurship Journal*, 10(1), 5-20.
- Wennekers, S., Van Stel, A., Thurik, R., & Reynolds, P. (2005). Nascent entrepreneurship and the level of economic development. *Small Business Economics*, 24(3), 293-309.
- Wennekers, S., & Van Stel, A. (2017). Types and roles of productive entrepreneurship: A conceptual study, in: G. Ahmetoglu, T. Chamorro-Premuzic, B. Klinger and T. Karcisky (eds.), *The Wiley Handbook of Entrepreneurship*, Chichester, UK: John Wiley & Sons Ltd, pp. 37-69.
- Werhahn, D., Mauer, R., Flatten, T. C., & Brettel, M. (2015). Validating effectual orientation as strategic direction in the corporate context. *European Management Journal*, 33(5), 305-313.
- Williams, R. (2006). Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *The Stata Journal*, 6(1), 58-82.
- Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty, Outcomes in angel investing. *Journal of Business Venturing*, 24(2), 116-133.
- Wong, P. K., Ho, Y. P., & Autio, E. (2005). Entrepreneurship, innovation and economic growth: Evidence from GEM data. *Small business economics*, 24(3), 335-350.
- Wood, R. and Bandura, A. (1989). Social cognitive theory of organizational management, *Academy of Management Review*, 14(3), 361-384.

- World Bank. (2006). *World Development Report 2006: Equity and Development*, New York: Oxford University Press.
- Zander, I. (2007). Do you see what I mean? An entrepreneurship perspective on the nature and boundaries of the firm. *Journal of Management Studies*, 44(7), 1141-1164.
- Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67(6), 361-370.
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective, in M. Boekaerts, P. R. Pintrich and M. Zeidner, *Handbook of Self-Regulation* (pp. 13-39), Cambridge, MA: Academic Press.

Summary

While the benefits of entrepreneurial activities, as the sources of new technologies, innovation, and employment, are often highlighted, the determinants of individuals' engagement in entrepreneurship tend to perplex us more. Normative theories of opportunity and utility maximization, on which popular conceptions and models of entrepreneurship are built, are struggling to explain emerging evidences of individuals' deviations from "optimal" (utility maximized) decisions. For instance, some people pursue entrepreneurship when and where there is no recognizable opportunity, and despite positive profit trends and projections, many never progress beyond their initial intentions to engage in new business activity.

Following the recent trend of studying positive experiences in entrepreneurship, the current dissertation seeks to dig into a new perspective in driving entrepreneurship: individuals choose and strive for entrepreneurship due to happiness, and in turn the level of happiness plays a key role in affecting individuals' preference and likelihood of being selected into this process. The four empirical studies in this dissertation present an integrative framework of the value of happiness in entrepreneurship—whether, why and how happiness is connected to entrepreneurship. Moreover, the four studies address and tackle the three major deficiencies in this emerging hot dialog.

First, previous studies tend to ignore the non-linear and dynamic nature of entrepreneurship, and overlook the role of positive affect in the continuous entrepreneurial action process. In the current dissertation, I endeavor to study the volitional effect of happiness on entrepreneurial action enacted on different phases of new business creation process—the absolute entrepreneurial engagement (study 1: engagement versus non-engagement), the relative entrepreneurial engagement (study 2: engagement levels in terms of entrepreneurship quality), and the post entrepreneurial engagement (study 3: subsequent motivational actions of entrepreneurial orientation, effort, and persistence).

Second, previous studies tend to constrain entrepreneurship as a new venture creation activity, and overlook the role of positive affect in affecting entrepreneurial mindset beyond new business creation. In respond, regarding entrepreneurship as one cognitive mindset, I examine the effect of happiness on effectuation, one important construct of entrepreneurship in explaining and representing entrepreneurial mindset.

Third, the scope of happiness in these studies is circumscribed with primarily high-activated and intense forms of positive affect. Perhaps more importantly, other dimensions of happiness besides the emotional category tend to be ignored, and happiness is limited in individual level without considering the value of contextual happiness. In respond, the present thesis conceptualizes a theoretical framework of happiness with three distinct unit dimensions (positive affect, positive evaluation, and positive functioning) and two different unit levels (individual happiness and population happiness). The differential effects of three distinguished dimensions of happiness on entrepreneurship are explored in study 4, and the effects of macro-level happiness on entrepreneurship are examined on study 1 and study 2.

To summarize our findings, Study 1 (Chapter 2) reveals that positive affect has a positive influence on individuals' likelihood of engaging in entrepreneurship beyond the nascent phase, and this effect is most pronounced when the individuals are within a positive environment (higher level of population positive affect). Study 2 (Chapter 3) further investigates the effect of population happiness on entrepreneurs' relative entrepreneurial engagement, showing a positive effect of country happiness on the relative engagement of innovation-focused entrepreneurship (vertical-scaling), but a negative effect on the relative engagement of expansion-focused dimension (horizontal-scaling). Drawing on a self-regulatory perspective, Study 3 (Chapter 4) shows that positive affect is also positively related to the entrepreneurs' motivational actions (entrepreneurial intrinsic orientation and persistence) in the post entry phases of entrepreneurship, and environmental uncertainty moderates the relationship between positive affect and entrepreneurial actions. Based on hedonic theory, desire theory, and eudaimonic theory,

Study 4 (Chapter 5) reveals that while positive functioning is positively related to the extent to which an individual employs each effectuation principle, positive affect is only negatively related to individuals' adoption of the *affordable loss principle* and positive evaluation is only negatively related to individuals' employment of the *lemonade principle*.

Samenvatting

Terwijl de voordelen van ondernemersactiviteiten als de bronnen van nieuwe technologieën, innovatie en werkgelegenheid, vaak worden onderstreept, de vastberadenheid van individuele betrokkenheid in ondernemerschap heeft de neiging ons meer te verbijsteren. Standaard theorieën van mogelijkheid en bruikbaarheid maximalisatie, waarop populaire opvattingen en modellen van ondernemerschap zijn gebouwd, worstelen met het verklaren van opduikende bewijzen van individuele afwijkingen van “optimale” (“gemaximaliseerd nut”) beslissingen. Bij voorbeeld, sommige mensen houden zich bezig met ondernemerschap wanneer en waar er geen herkenbare gelegenheid is en ondanks positieve winst tendensen en projecties, komen velen nooit verder dan hun oorspronkelijke voornemens om een nieuwe ondernemersactiviteit op te pakken.

Volgende de recente trend van het bestuderen van positieve ervaringen in ondernemerschap, wil het huidige proefschrift zich verdiepen in een nieuw perspectief in stimulerend ondernemerschap: individuen kiezen en streven naar ondernemerschap vanwege geluk en op haar beurt speelt de hoogte van geluk een sleutelrol bij het beïnvloeden van voorkeuren van individuen en de waarschijnlijkheid om in dit proces te worden geselecteerd. De vier empirische studies in dit proefschrift vertegenwoordigen een geïntegreerd kader van de waarde van geluk in het ondernemerschap—of, waarom en hoe geluk verbonden is met ondernemerschap. Bovendien richten de vier studies zich op - en pakken de drie belangrijkste tekortkomingen aan in deze opkomende belangrijke dialoog.

Ten eerste, eerdere studies hebben de neiging tot negeren van het niet-lineaire en dynamische karakter van ondernemerschap en zagen de rol over het hoofd van de positieve invloed in het proces van continu ondernemen. In het huidige proefschrift probeer ik het gelukseffect te bestuderen over ondernemerschap acties in de verschillende fasen van het proces van het creëren van nieuwe bedrijven—de absolute

ondernemersbetrokkenheid. (onderzoek 1: betrokkenheid versus niet-betrokkenheid), de relatieve ondernemende betrokkenheid (onderzoek 2: betrokkenheid niveau op het gebied van kwaliteit van ondernemerschap) en de post- ondernemersbetrokkenheid (onderzoek 3: daaropvolgende motiverende acties van ondernemersoriëntatie, inspanning en doorzettingsvermogen).

Ten tweede, eerdere studies hebben de neiging om ondernemerschap te beperken als een activiteit om nieuwe ondernemingen te creëren, en zien ze de rol over het hoofd van de positieve invloed van het beïnvloeden van de ondernemende manier van denken, die verder gaat dan het creëren van nieuwe bedrijven. Als antwoord, wat betreft ondernemerschap als een cognitieve manier van denken, onderzoek ik het effect van geluk op de uitvoering, een belangrijk constructie van ondernemerschap, bij het uitleggen en vertegenwoordigen van de ondernemende manier van denken.

Ten derde, de reikwijdte van geluk in deze studies is omlijnd met voornamelijk hoog-geactiveerde en intense vormen van positieve invloed. Misschien nog belangrijker, andere dimensies van geluk, behalve de emotionele categorie, neigen genegeerd te worden en geluk is beperkt tot individueel niveau zonder rekening te houden met de waarde van contextueel geluk. In antwoord hier op schept het huidige proefschrift een theoretisch raamwerk van geluk met drie onderscheiden eenheidsafmetingen. (positieve invloed, positieve beoordeling en positief functioneren) en twee verschillende eenheidsniveaus (individueel geluk en bevolkingsgeluk). De differentiële effecten van drie onderscheiden dimensies van geluk op ondernemerschap worden onderzocht in onderzoek 4, en de effecten van geluk op macroniveau op ondernemerschap worden onderzocht in onderzoek 1 en in onderzoek 2.

Om onze bevindingen samen te vatten, Onderzoek 1 (Hoofdstuk 2) laat zien dat positieve gemoedsaandoening een positieve invloed heeft op de persoonlijke waarschijnlijkheid om deel te nemen aan ondernemerschap, voorbij in de ontluikende fase en dit effect is het meest uitgesproken wanneer de individuen zich bevinden in een positieve omgeving (hoger niveau van bevolking, positieve invloed). Onderzoek 2 (Hoofdstuk 3) onderzoekt verder het effect van bevolkingsgeluk op de

relatieve ondernemersbetrokkenheid, met een positief effect op het geluk van het land op de relatieve betrokkenheid van innovatiegericht ondernemerschap (verticale-schaal) maar een negatief effect op relatieve betrokkenheid op expansie gerichte dimensie (horizontale schaal). Op basis van op een zelfregulerend perspectief, Onderzoek 3 (Hoofdstuk 4) toont het aan dat positieve invloed ook positief gerelateerd is aan motiverende acties van de ondernemers (ondernemende wezenlijke oriëntatie en volharding) in de fase na de start van ondernemerschap en omgeving onzekerheid modereert de relatie tussen positieve invloeden en ondernemersacties.

Gebaseerd op hedonistische theorie, de verlangen theorie en de eudaimonic theorie, Onderzoek 4 (Hoofdstuk 5) onthult dat terwijl positief functioneren, positief is gerelateerd voor zover een persoon gebruik maakt van elk effectuering-principe, positieve invloed alleen negatief is gerelateerd aan aanneming van individuen *van het betaalbare verliesbeginsel* en positieve evaluatie alleen negatief is gerelateerd aan het gebruik door individuen van het *limonade principe*.

The ERIM PhD Series

The ERIM PhD Series contains PhD dissertations in the field of Research in Management defended at Erasmus University Rotterdam and supervised by senior researchers affiliated to the Erasmus Research Institute of Management (ERIM). All dissertations in the ERIM PhD Series are available in full text through the ERIM Electronic Series Portal: <http://repub.eur.nl/pub>. ERIM is the joint research institute of the Rotterdam School of Management (RSM) and the Erasmus School of Economics (ESE) at the Erasmus University Rotterdam (EUR).

Dissertations in the last four years

Akemu, O., *Corporate Responses to Social Issues: Essays in Social Entrepreneurship and Corporate Social Responsibility*, Promotors: Prof. G.M. Whiteman & Dr S.P. Kennedy, EPS-2017-392-ORG, <https://repub.eur.nl/pub/95768>

Alexiou, A. *Management of Emerging Technologies and the Learning Organization: Lessons from the Cloud and Serious Games Technology*, Promotors: Prof. S.J. Magala, Prof. M.C. Schippers and Dr I. Oshri, EPS-2016-404-ORG, <http://repub.eur.nl/pub/93818>

Alserda, G.A.G., *Choices in Pension Management*, Promotors: Prof. S.G. van der Lecq & Dr O.W. Steenbeek, EPS-2017-432-F&A, <https://repub.eur.nl/pub/103496>

Arampatzi, E., *Subjective Well-Being in Times of Crises: Evidence on the Wider Impact of Economic Crises and Turmoil on Subjective Well-Being*, Promotors: Prof. H.R. Commandeur, Prof. F. van Oort & Dr. M.J. Burger, EPS-2018-459-S&E, <https://repub.eur.nl/pub/111830>

Avci, E., *Surveillance of Complex Auction Markets: a Market Policy Analytics Approach*, Promotors: Prof. W. Ketter, Prof. H.W.G.M. van Heck & Prof. D.W. Bunn, EPS-2018-426-LIS, <https://repub.eur.nl/pub/106286>

Benschop, N, *Biases in Project Escalation: Names, frames & construal levels*, Promotors: Prof. K.I.M. Rhode, Prof. H.R. Commandeur, Prof. M. Keil & Dr A.L.P. Nuijten, EPS-2015-375-S&E, <http://repub.eur.nl/pub/79408>

Bernoster, I., *Essays at the Intersection of Psychology, Biology, and Entrepreneurship*, Promotors: Prof. A.R. Thurik, Prof. I.H.A. Franken & Prof. P.J.F Groenen, EPS-2018-463-S&E, <https://repub.eur.nl/pub/113907>

Beusichem, H.C. van, *Firms and Financial Markets: Empirical Studies on the Informational Value of Dividends, Governance and Financial Reporting*, Promotors: Prof. A. de Jong & Dr G. Westerhuis, EPS-2016-378-F&A, <http://repub.eur.nl/pub/93079>

Blik, R. de, *Empirical Studies on the Economic Impact of Trust*, Promotor: Prof. J. Veenman & Prof. Ph.H.B.F. Franses, EPS-2015-324-ORG, <http://repub.eur.nl/pub/78159>

Bouman, P., *Passengers, Crowding and Complexity: Models for Passenger Oriented Public Transport*, Prof. L.G. Kroon, Prof. A. Schöbel & Prof. P.H.M. Vervest, EPS-2017-420-LIS, <https://repub.eur.nl/>

Brazys, J., *Aggregated Macroeconomic News and Price Discovery*, Promotor: Prof. W.F.C. Verschoor, EPS-2015-351-F&A, <http://repub.eur.nl/pub/78243>

Bunderen, L. van, *Tug-of-War: Why and when teams get embroiled in power struggles*, Promotors: Prof. D.L. van Knippenberg & Dr. L. Greer, EPS-2018-446-ORG, <https://repub.eur.nl/pub/105346>

Burg, G.J.J. van den, *Algorithms for Multiclass Classification and Regularized Regression*, Promotors: Prof. P.J.F. Groenen & Dr. A. Alfons, EPS-2018-442-MKT, <https://repub.eur.nl/pub/103929>

Chammas, G., *Portfolio concentration*, Promotor: Prof. J. Spronk, EPS-2017-410-F&E, <https://repub.eur.nl/pub/94975>

Cranenburgh, K.C. van, *Money or Ethics: Multinational corporations and religious organisations operating in an era of corporate responsibility*, Prof. L.C.P.M. Meijs, Prof. R.J.M. van Tulder & Dr D. Arenas, EPS-2016-385-ORG, <http://repub.eur.nl/pub/93104>

Consiglio, I., *Others: Essays on Interpersonal and Consumer Behavior*, Promotor: Prof. S.M.J. van Osselaer, EPS-2016-366-MKT, <http://repub.eur.nl/pub/79820>

Darnihamedani, P. *Individual Characteristics, Contextual Factors and Entrepreneurial Behavior*, Promotors: Prof. A.R. Thurik & S.J.A. Hessels, EPS-2016-360-S&E, <http://repub.eur.nl/pub/93280>

Dennerlein, T. *Empowering Leadership and Employees' Achievement Motivations: the Role of Self-Efficacy and Goal Orientations in the Empowering Leadership Process*, Promotors: Prof. D.L. van Knippenberg & Dr J. Dietz, EPS-2017-414-ORG, <https://repub.eur.nl/pub/98438>

Deng, W., *Social Capital and Diversification of Cooperatives*, Promotor: Prof. G.W.J. Hendrikse, EPS-2015-341-ORG, <http://repub.eur.nl/pub/77449>

Depecik, B.E., *Revitalizing brands and brand: Essays on Brand and Brand Portfolio Management Strategies*, Promotors: Prof. G.H. van Bruggen, Dr Y.M. van Everdingen and Dr M.B. Ataman, EPS-2016-406-MKT, <http://repub.eur.nl/pub/93507>

Duijzer, L.E., *Mathematical Optimization in Vaccine Allocation*, Promotors: Prof. R. Dekker & Dr W.L. van Jaarsveld, EPS-2017-430-LIS, <https://repub.eur.nl/pub/101487>

Duyvesteyn, J.G. *Empirical Studies on Sovereign Fixed Income Markets*, Promotors: Prof. P. Verwijmeren & Prof. M.P.E. Martens, EPS-2015-361-F&A, <https://repub.eur.nl/pub/79033>

Elmes, A., *Studies on Determinants and Consequences of Financial Reporting Quality*, Promotor: Prof. E. Peek, EPS-2015-354-F&A, <https://repub.eur.nl/pub/79037>

Ellen, S. ter, *Measurement, Dynamics, and Implications of Heterogeneous Beliefs in Financial Markets*, Promotor: Prof. W.F.C. Verschoor, EPS-2015-343-F&A, <http://repub.eur.nl/pub/78191>

El Nayal, O.S.A.N., *Firms and the State: An Examination of Corporate Political Activity and the Business-Government Interface*, Promotor: Prof. J. van Oosterhout & Dr. M. van Essen, EPS-2018-469-S&E, <https://repub.eur.nl/pub/114683>

Erlemann, C., *Gender and Leadership Aspiration: The Impact of the Organizational Environment*, Promotor: Prof. D.L. van Knippenberg, EPS-2016-376-ORG, <http://repub.eur.nl/pub/79409>

Eskenazi, P.I., *The Accountable Animal*, Promotor: Prof. F.G.H. Hartmann, EPS-2015-355-F&A, <http://repub.eur.nl/pub/78300>

Evangelidis, I., *Preference Construction under Prominence*, Promotor: Prof. S.M.J. van Osselaer, EPS-2015-340-MKT, <http://repub.eur.nl/pub/78202>

Faber, N., *Structuring Warehouse Management*, Promotors: Prof. M.B.M. de Koster & Prof. A. Smidts, EPS-2015-336-LIS, <http://repub.eur.nl/pub/78603>

Feng, Y., *The Effectiveness of Corporate Governance Mechanisms and Leadership Structure: Impacts on strategic change and firm performance*, Promotors: Prof. F.A.J. van den Bosch, Prof. H.W. Volberda & Dr J.S. Sidhu, EPS-2017-389-S&E, <https://repub.eur.nl/pub/98470>

Fernald, K., *The Waves of Biotechnological Innovation in Medicine: Interfirm Cooperation Effects and a Venture Capital Perspective*, Promotors: Prof. E. Claassen, Prof. H.P.G. Pennings & Prof. H.R. Commandeur, EPS-2015-371-S&E, <http://hdl.handle.net/1765/79120>

Fisch, C.O., *Patents and trademarks: Motivations, antecedents, and value in industrialized and emerging markets*, Promotors: Prof. J.H. Block, Prof. H.P.G. Pennings & Prof. A.R. Thurik, EPS-2016-397-S&E, <http://repub.eur.nl/pub/94036>

Fliers, P.T., *Essays on Financing and Performance: The role of firms, banks and board*, Promotors: Prof. A. de Jong & Prof. P.G.J. Roosenboom, EPS-2016-388-F&A, <http://repub.eur.nl/pub/93019>

Frick, T.W., *The Implications of Advertising Personalization for Firms, Consumer, and Ad Platforms*, Promotors: Prof. T. Li & Prof. H.W.G.M. van Heck, EPS-2018-452-LIS, <https://repub.eur.nl/pub/110314>

Fytraki, A.T., *Behavioral Effects in Consumer Evaluations of Recommendation Systems*, Promotors: Prof. B.G.C. Dellaert & Prof. T. Li, EPS-2018-427-MKT, <https://repub.eur.nl/pub/110457>

Gaast, J.P. van der, *Stochastic Models for Order Picking Systems*, Promotors: Prof. M.B.M de Koster & Prof. I.J.B.F. Adan, EPS-2016-398-LIS, <http://repub.eur.nl/pub/93222>

Ghazizadeh, P. *Empirical Studies on the Role of Financial Information in Asset and Capital Markets*, Promotors: Prof. A. de Jong & Prof. E. Peek. EPS-2019-470-F&A <https://repub.eur.nl/pub/114023>

Giurge, L., *A Test of Time; A temporal and dynamic approach to power and ethics*, Promotors: Prof. M.H. van Dijke & Prof. D. De Cremer, EPS-2017-412-ORG, <https://repub.eur.nl/>

Gobena, L., *Towards Integrating Antecedents of Voluntary Tax Compliance*, Promotors: Prof. M.H. van Dijke & Dr P. Verboon, EPS-2017-436-ORG, <https://repub.eur.nl/pub/103276>

Groot, W.A., *Assessing Asset Pricing Anomalies*, Promotors: Prof. M.J.C.M. Verbeek & Prof. J.H. van Binsbergen, EPS-2017-437-F&A, <https://repub.eur.nl/pub/103490>

Hanselaar, R.M., *Raising Capital: On pricing, liquidity and incentives*, Promotors: Prof. M.A. van Dijk & Prof. P.G.J. Roosenboom, EPS-2018-429-F&A-9789058925404, <https://repub.eur.nl/pub/113274>

Harms, J. A., *Essays on the Behavioral Economics of Social Preferences and Bounded Rationality*, Prof. H.R. Commandeur & Dr K.E.H. Maas, EPS-2018-457-S&E, <https://repub.eur.nl/pub/108831>

Hekimoglu, M., *Spare Parts Management of Aging Capital Products*, Promotor: Prof. R. Dekker, EPS-2015-368-LIS, <http://repub.eur.nl/pub/79092>

Hendriks, G., *Multinational Enterprises and Limits to International Growth: Links between Domestic and Foreign Activities in a Firm's Portfolio*, Promotors: Prof. P.P.M.A.R. Heugens & Dr. A.H.L. Slangen, EPS-2019-464-S&E, <https://repub.eur.nl/pub/114981>

Hengelaar, G.A., *The Proactive Incumbent: Holy grail or hidden gem? Investigating whether the Dutch electricity sector can overcome the incumbent's curse and lead the sustainability transition*, Promotors: Prof. R.J. M. van Tulder & Dr K. Dittrich, EPS-2018-438-ORG, <https://repub.eur.nl/pub/102953>

Hogenboom, A.C., *Sentiment Analysis of Text Guided by Semantics and Structure*, Promotors: Prof. U. Kaymak & Prof. F.M.G. de Jong, EPS-2015-369-LIS, <http://repub.eur.nl/pub/79034>

Hollen, R.M.A., *Exploratory Studies into Strategies to Enhance Innovation-Driven International Competitiveness in a Port Context: Toward Ambidextrous Ports*, Promotors: Prof. F.A.J. Van Den Bosch & Prof. H.W. Volberda, EPS-2015-372-S&E, <http://repub.eur.nl/pub/78881>

Hurk, E. van der, *Passengers, Information, and Disruptions*, Promotors: Prof. L.G. Kroon & Prof. P.H.M. Vervest, EPS-2015-345-LIS, <http://repub.eur.nl/pub/78275>

Jacobs, B.J.D., *Marketing Analytics for High-Dimensional Assortments*, Promotors: Prof. A.C.D. Donkers & Prof. D. Fok, EPS-2017-445-MKT, <https://repub.eur.nl/pub/103497>

Kahlen, M. T., *Virtual Power Plants of Electric Vehicles in Sustainable Smart Electricity Markets*, Promotors: Prof. W. Ketter & Prof. A. Gupta, EPS-2017-431-LIS, <https://repub.eur.nl/pub/100844>

Kampen, S. van, *The Cross-sectional and Time-series Dynamics of Corporate Finance: Empirical evidence from financially constrained firms*, Promotors: Prof. L. Norden & Prof. P.G.J. Roosenboom, EPS-2018-440-F&A, <https://repub.eur.nl/pub/105245>

Karali, E., *Investigating Routines and Dynamic Capabilities for Change and Innovation*, Promoters: Prof. H.W. Volberda, Prof. H.R. Commandeur and Dr J.S. Sidhu, EPS-2018-454-S&E, <https://repub.eur.nl/pub/106274>

Keko, E., *Essays on Innovation Generation in Incumbent Firms*, Promoters: Prof. S. Stremersch & Dr N.M.A. Camacho, EPS-2017-419-MKT, <https://repub.eur.nl/pub/100841>

Kerkkamp, R.B.O., *Optimisation Models for Supply Chain Coordination under Information Asymmetry*, Promoters: Prof. A.P.M. Wagelmans & Dr. W. van den Heuvel, EPS-2018-462-LIS

Khattab, J., *Make Minorities Great Again: a contribution to workplace equity by identifying and addressing constraints and privileges*, Promoters: Prof. D.L. van Knippenberg & Dr A. Nederveen Pieterse, EPS-2017-421-ORG, <https://repub.eur.nl/pub/99311>

Kim, T. Y., *Data-driven Warehouse Management in Global Supply Chains*, Promoters: Prof. R. Dekker & Dr C. Heij, EPS-2018-449-LIS, <https://repub.eur.nl/pub/109103>

Klitsie, E.J., *Strategic Renewal in Institutional Contexts: The paradox of embedded agency*, Promoters: Prof. H.W. Volberda & Dr. S. Ansari, EPS-2018-444-S&E, <https://repub.eur.nl/pub/106275>

Kong, L. *Essays on Financial Coordination*, Promoters: Prof. M.J.C.M. Verbeek, Dr. D.G.J. Bongaerts & Dr. M.A. van Achter. EPS-2019-433-F&A, <https://repub.eur.nl/pub/114516>

Krämer, R., *A license to mine? Community organizing against multinational corporations*, Promoters: Prof. R.J.M. van Tulder & Prof. G.M. Whiteman, EPS-2016-383-ORG, <http://repub.eur.nl/pub/94072>

Kysucky, V., *Access to Finance in a Cros-Country Context*, Promotor: Prof. L. Norden, EPS-2015-350-F&A, <http://repub.eur.nl/pub/78225>

Lee, C.I.S.G., *Big Data in Management Research: Exploring New Avenues*, Promoters: Prof. S.J. Magala & Dr W.A. Felps, EPS-2016-365-ORG, <http://repub.eur.nl/pub/79818>

Legault-Tremblay, P.O., *Corporate Governance During Market Transition: Heterogeneous responses to Institution Tensions in China*, Promotor: Prof. B. Krug, EPS-2015-362-ORG, <http://repub.eur.nl/pub/78649>

Lenoir, A.S. *Are You Talking to Me? Addressing Consumers in a Globalised World*, Promotors: Prof. S. Puntoni & Prof. S.M.J. van Osselaer, EPS-2015-363-MKT, <http://repub.eur.nl/pub/79036>

Li, D., *Supply Chain Contracting for After-sales Service and Product Support*, Promotor: Prof. M.B.M. de Koster, EPS-2015-347-LIS, <http://repub.eur.nl/pub/78526>

Li, X. *Dynamic Decision Making under Supply Chain Competition*, Promotors: Prof. M.B.M. de Koster, Prof. R. Dekker & Prof. R. Zuidwijk. EPS-2018-466-LIS, <https://repub.eur.nl/pub/114028>

Liu, N., *Behavioral Biases in Interpersonal Contexts*, Supervisors: Prof. A. Baillon & Prof. H. Bleichrodt, EPS-2017-408-MKT, <https://repub.eur.nl/pub/95487>

Ma, Y., *The Use of Advanced Transportation Monitoring Data for Official Statistics*, Promotors: Prof. L.G. Kroon & Dr J. van Dalen, EPS-2016-391-LIS, <http://repub.eur.nl/pub/80174>

Maira, E., *Consumers and Producers*, Promotors: Prof. S. Puntoni & Prof. C. Fuchs, EPS-2018-439-MKT, <https://repub.eur.nl/pub/104387>

Mell, J.N., *Connecting Minds: On The Role of Metaknowledge in Knowledge Coordination*, Promotor: Prof. D.L. van Knippenberg, EPS-2015-359-ORG, <http://hdl.handle.net/1765/78951>

Meulen, van der, D., *The Distance Dilemma: the effect of flexible working practices on performance in the digital workplace*, Promotors: Prof. H.W.G.M. van Heck & Prof. P.J. van Baalen, EPS-2016-403-LIS, <http://repub.eur.nl/pub/94033>

Micheli, M.R., *Business Model Innovation: A Journey across Managers' Attention and Inter-Organizational Networks*, Promotor: Prof. J.J.P. Jansen, EPS-2015-344-S&E, <http://repub.eur.nl/pub/78241>

Moniz, A., *Textual Analysis of Intangible Information*, Promotors: Prof. C.B.M. van Riel, Prof. F.M.G. de Jong & Dr G.A.J.M. Berens, EPS-2016-393-ORG, <http://repub.eur.nl/pub/93001>

Mulder, J. *Network design and robust scheduling in liner shipping*, Promotors: Prof. R. Dekker & Dr W.L. van Jaarsveld, EPS-2016-384-LIS, <http://repub.eur.nl/pub/80258>

Neerijnen, P., *The Adaptive Organization: the socio-cognitive antecedents of ambidexterity and individual exploration*, Promotors: Prof. J.J.P. Jansen,

P.P.M.A.R. Heugens & Dr T.J.M. Mom, EPS-2016-358-S&E,
<http://repub.eur.nl/pub/93274>

Okbay, A., *Essays on Genetics and the Social Sciences*, Promotors: Prof. A.R. Thurik, Prof. Ph.D. Koellinger & Prof. P.J.F. Groenen, EPS-2017-413-S&E,
<https://repub.eur.nl/pub/95489>

Oord, J.A. van, *Essays on Momentum Strategies in Finance*, Promotor: Prof. H.K. van Dijk, EPS-2016-380-F&A, <http://repub.eur.nl/pub/80036>

Peng, X., *Innovation, Member Sorting, and Evaluation of Agricultural Cooperatives*, Promotor: Prof. G.W.J. Hendriks, EPS-2017-409-ORG,
<https://repub.eur.nl/pub/94976>

Pennings, C.L.P., *Advancements in Demand Forecasting: Methods and Behavior*, Promotors: Prof. L.G. Kroon, Prof. H.W.G.M. van Heck & Dr J. van Dalen, EPS-2016-400-LIS, <http://repub.eur.nl/pub/94039>

Petruchenya, A., *Essays on Cooperatives: Emergence, Retained Earnings, and Market Shares*, Promotors: Prof. G.W.J. Hendriks & Dr Y. Zhang, EPS-2018-447-ORG, <https://repub.eur.nl/pub/105243>

Plessis, C. du, *Influencers: The Role of Social Influence in Marketing*, Promotors: Prof. S. Puntoni & Prof. S.T.L.R. Sweldens, EPS-2017-425-MKT,
<https://repub.eur.nl/pub/103265>

Pocock, M., *Status Inequalities in Business Exchange Relations in Luxury Markets*, Promotors: Prof. C.B.M. van Riel & Dr G.A.J.M. Berens, EPS-2017-346-ORG, <https://repub.eur.nl/pub/98647>

Pozharliev, R., *Social Neuromarketing: The role of social context in measuring advertising effectiveness*, Promotors: Prof. W.J.M.I. Verbeke & Prof. J.W. van Strien, EPS-2017-402-MKT, <https://repub.eur.nl/pub/95528>

Protzner, S. *Mind the gap between demand and supply: A behavioral perspective on demand forecasting*, Promotors: Prof. S.L. van de Velde & Dr L. Rook, EPS-2015-364-LIS, <http://repub.eur.nl/pub/79355>

Pruijssers, J.K., *An Organizational Perspective on Auditor Conduct*, Promotors: Prof. J. van Oosterhout & Prof. P.P.M.A.R. Heugens, EPS-2015-342-S&E,
<http://repub.eur.nl/pub/78192>

Reh, S.G., *A Temporal Perspective on Social Comparisons in Organizations*, Promotors: Prof. S.R. Giessner, Prof. N. van Quaquebeke & Dr. C. Troster, EPS-2018-471-ORG, <https://repub.eur.nl/pub/114522>

Riessen, B. van, *Optimal Transportation Plans and Portfolios for Synchronomodal Container Networks*, Promotors: Prof. R. Dekker & Prof. R.R. Negenborn, EPS-2018-448-LIS, <https://repub.eur.nl/pub/105248>

Rietdijk, W.J.R. *The Use of Cognitive Factors for Explaining Entrepreneurship*, Promotors: Prof. A.R. Thurik & Prof. I.H.A. Franken, EPS-2015-356-S&E, <http://repub.eur.nl/pub/79817>

Rösch, D. *Market Efficiency and Liquidity*, Promotor: Prof. M.A. van Dijk, EPS-2015-353-F&A, <http://repub.eur.nl/pub/79121>

Roza, L., *Employee Engagement in Corporate Social Responsibility: A collection of essays*, Promotor: Prof. L.C.P.M. Meijs, EPS-2016-396-ORG, <http://repub.eur.nl/pub/93254>

Schie, R. J. G. van, *Planning for Retirement: Save More or Retire Later?* Promotors: Prof. B. G. C. Dellaert & Prof. A.C.D. Donkers, EOS-2017-415-MKT, <https://repub.eur.nl/pub/100846>

Schoonees, P. *Methods for Modelling Response Styles*, Promotor: Prof. P.J.F. Groenen, EPS-2015-348-MKT, <http://repub.eur.nl/pub/79327>

Schouten, K.I.M. *Semantics-driven Aspect-based Sentiment Analysis*, Promotors: Prof. F.M.G. de Jong, Prof. R. Dekker & Dr. F. Frasincar, EPS-2018-453-LIS, <https://repub.eur.nl/pub/112161>

Schouten, M.E., *The Ups and Downs of Hierarchy: the causes and consequences of hierarchy struggles and positional loss*, Promotors; Prof. D.L. van Knippenberg & Dr L.L. Greer, EPS-2016-386-ORG, <http://repub.eur.nl/pub/80059>

Smit, J. *Unlocking Business Model Innovation: A look through the keyhole at the inner workings of Business Model Innovation*, Promotor: Prof. H.G. Barkema, EPS-2016-399-S&E, <http://repub.eur.nl/pub/93211>

Straeter, L.M., *Interpersonal Consumer Decision Making*, Promotors: Prof. S.M.J. van Osselaer & Dr I.E. de Hooge, EPS-2017-423-MKT, <https://repub.eur.nl/pub/100819>

Stuppy, A., *Essays on Product Quality*, Promotors: Prof. S.M.J. van Osselaer & Dr. N.L. Mead, EPS-2018-461-MKT, <https://repub.eur.nl/pub/111375>

Subaşı, B., *Demographic Dissimilarity, Information Access and Individual Performance*, Promotors: Prof. D.L. van Knippenberg & Dr W.P. van Ginkel, EPS-2017-422-ORG, <https://repub.eur.nl/pub/103495>

Suurmond, R., *In Pursuit of Supplier Knowledge: Leveraging capabilities and dividing responsibilities in product and service contexts*, Promotors: Prof. J.Y.F Wynstra & Prof. J. Dul. EPS-2018-475-LIS, <https://repub.eur.nl/pub/115138>

Szatmari, B., *We are (all) the champions: The effect of status in the implementation of innovations*, Promotors: Prof. J.C.M van den Ende & Dr D. Deichmann, EPS-2016-401-LIS, <http://repub.eur.nl/pub/94633>

Toxopeus, H.S. *Financing sustainable innovation: From a principal-agent to a collective action perspective*, Promotors: Prof. H.R. Commandeur & Dr. K.E.H. Maas. EPS-2019-458-S&E, <https://repub.eur.nl/pub/114018>

Tuijl, E. van, *Upgrading across Organisational and Geographical Configurations*, Promotor: Prof. L. van den Berg, EPS-2015-349-S&E, <http://repub.eur.nl/pub/78224>

Turturea, R., *Overcoming Resource Constraints: The Role of Creative Resourcing and Equity Crowdfunding in Financing Entrepreneurial Ventures*, Promotors: Prof. P.P.M.A.R Heugens, Prof. J.J.P. Jansen & Dr. I. Verheuil, EPS-2019-472-S&E, <https://repub.eur.nl/pub/112859>

Valogianni, K. *Sustainable Electric Vehicle Management using Coordinated Machine Learning*, Promotors: Prof. H.W.G.M. van Heck & Prof. W. Ketter, EPS-2016-387-LIS, <http://repub.eur.nl/pub/93018>

Vandic, D., *Intelligent Information Systems for Web Product Search*, Promotors: Prof. U. Kaymak & Dr Frasincar, EPS-2017-405-LIS, <https://repub.eur.nl/pub/95490>

Verbeek, R.W.M., *Essays on Empirical Asset Pricing*, Promotors: Prof. M.A. van Dijk & Dr M. Szymanowska, EPS-2017-441-F&A, <https://repub.eur.nl/pub/102977>

Vermeer, W., *Propagation in Networks: The impact of information processing at the actor level on system-wide propagation dynamics*, Promotor: Prof. P.H.M. Vervest, EPS-2015-373-LIS, <http://repub.eur.nl/pub/79325>

Versluis, I., *Prevention of the Portion Size Effect*, Promotors: Prof. Ph.H.B.F. Franses & Dr E.K. Papies, EPS-2016-382-MKT, <http://repub.eur.nl/pub/79880>

Vishwanathan, P., *Governing for Stakeholders: How Organizations May Create or Destroy Value for their Stakeholders*, Promotors: Prof. J. van Oosterhout & Prof. L.C.P.M. Meijs, EPS-2016-377-ORG, <http://repub.eur.nl/pub/93016>

Vlaming, R. de., *Linear Mixed Models in Statistical Genetics*, Prof. A.R. Thurik,

Prof. P.J.F. Groenen & Prof. Ph.D. Koellinger, EPS-2017-416-S&E,
<https://repub.eur.nl/pub/100428>

Vries, H. de, *Evidence-Based Optimization in Humanitarian Logistics*,
Promotors: Prof. A.P.M. Wagelmans & Prof. J.J. van de Klundert, EPS-2017-435-LIS, <https://repub.eur.nl/pub/102771>

Vries, J. de, *Behavioral Operations in Logistics*, Promotors: Prof. M.B.M de Koster & Prof. D.A. Stam, EPS-2015-374-LIS, <http://repub.eur.nl/pub/79705>

Wagenaar, J.C., *Practice Oriented Algorithmic Disruption Management in Passenger Railways*, Prof. L.G. Kroon & Prof. A.P.M. Wagelmans, EPS-2016-390-LIS, <http://repub.eur.nl/pub/93177>

Wang, P., *Innovations, status, and networks*, Promotors: Prof. J.J.P. Jansen & Dr V.J.A. van de Vrande, EPS-2016-381-S&E, <http://repub.eur.nl/pub/93176>

Wang, R., *Corporate Environmentalism in China*, Promotors: Prof. P.P.M.A.R Heugens & Dr F. Wijen, EPS-2017-417-S&E, <https://repub.eur.nl/pub/99987>

Wang, T., *Essays in Banking and Corporate Finance*, Promotors: Prof. L. Norden & Prof. P.G.J. Roosenboom, EPS-2015-352-F&A,
<http://repub.eur.nl/pub/78301>

Wasesa, M., *Agent-based inter-organizational systems in advanced logistics operations*, Promotors: Prof. H.W.G.M van Heck, Prof. R.A. Zuidwijk & Dr A. W. Stam, EPS-2017-LIS-424, <https://repub.eur.nl/pub/100527>

Wessels, C., *Flexible Working Practices: How Employees Can Reap the Benefits for Engagement and Performance*, Promotors: Prof. H.W.G.M. van Heck, Prof. P.J. van Baalen & Prof. M.C. Schippers, EPS-2017-418-LIS,
<https://repub.eur.nl/>

Wiegmann, P.M., *Setting the Stage for Innovation: Balancing Diverse Interests through Standardisation*, Promotors: Prof. H.J. de Vries & Dr. K. Blind, EPS-2019-473-LIS, <https://repub.eur.nl/pub/114519>

Williams, A.N., *Make Our Planet Great Again: A Systems Perspective of Corporate Sustainability*, Promotors: Prof. G.M. Whiteman & Dr. S. Kennedy, EPS-2018-456-ORG, <https://repub.eur.nl/pub/111032>

Witte, C.T., *Bloody Business: Multinational investment in an increasingly conflict-afflicted world*, Promotors: Prof. H.P.G. Pennings, Prof. H.R. Commandeur & Dr M.J. Burger, EPS-2018-443-S&E,
<https://repub.eur.nl/pub/104027>

Yuan, Y., *The Emergence of Team Creativity: a social network perspective*, Promoters: Prof. D. L. van Knippenberg & Dr D. A. Stam, EPS-2017-434-ORG, <https://repub.eur.nl/pub/100847>

Ypsilantis, P., *The Design, Planning and Execution of Sustainable Intermodal Port-hinterland Transport Networks*, Promoters: Prof. R.A. Zuidwijk & Prof. L.G. Kroon, EPS-2016-395-LIS, <http://repub.eur.nl/pub/94375>

Yuferova, D., *Price Discovery, Liquidity Provision, and Low-Latency Trading*, Promoters: Prof. M.A. van Dijk & Dr D.G.J. Bongaerts, EPS-2016-379-F&A, <http://repub.eur.nl/pub/93017>

Zhang, Q., *Financing and Regulatory Frictions in Mergers and Acquisitions*, Promoters: Prof. P.G.J. Roosenboom & Prof. A. de Jong, EPS-2018-428-F&A, <https://repub.eur.nl/pub/103871>

Zuber, F.B., *Looking at the Others: Studies on (un)ethical behavior and social relationships in organizations*, Promotor: Prof. S.P. Kaptein, EPS-2016-394-ORG, <http://repub.eur.nl/pub/94388>