

Understanding the Benefits, Dynamics, and Ambiguities of Passion in Entrepreneurship

Dissertation

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List of Abbreviations

b	Unstandardized beta coefficient
β	Standardized beta coefficient
CFI	Comparative Fit Index
CI	Confidence interval
e.g.	exempli gratia (for example)
et al.	et alii (and others)
ICC	Intraclass correlation coefficient
i.e.	id est (that is/in other words)
M	Mean
OLS	Ordinary Least Squares
p	p-value
pc	Person-Centered
PE	Person-Environment
RCM	Random Coefficient Model
RIFS	Random Intercept Fixed Slope
RIRS	Random Intercept Random Slope
RMSEA	Root Mean Square Error of Approximation
SE	Standard Error
SD	Standard Deviation
SRMR	Standardized Root Mean Square Residual
t	Measurement Wave
TLI	Tucker-Lewis Index
U.S.	United States of America
VIF	Variance Inflation Factor

ABSTRACT

Entrepreneurship is a key driver of economic and societal progress. Entrepreneurs typically exhibit a deep emotional connection to their ventures and often experience challenging environments marked by uncertainty and high pressure. In such circumstances, their passion for their business is crucial to their success and perseverance. This dissertation explores the multifaceted role of passion in entrepreneurship, examining its functionality, development, and the intricacies associated with its obsessive form. Specifically, this dissertation seeks to answer three research questions. The first explores the positive effects of passion through a passion-as-a-resource perspective, the second investigates the dynamics of passion over time, and the third delves into strategies to mitigate the risks associated with obsessive passion. In answering these research questions, this dissertation contributes significant insight into passion in entrepreneurship. First, it investigates how passion serves as a resource for entrepreneurs. It demonstrates how passion supports affect regulation, thereby contributing to an entrepreneur's perceived success, as well as serving as a signal and supporting entrepreneurs in recruiting suitable talent. Second, it demonstrates the dynamics of passion over time, specifically highlighting the importance of the current passion level, upon which its own development is contingent. Third, it delves into the dark side of passion, developing distinct subtypes of obsessive passion and revealing strategies for harnessing its positive aspects while mitigating its negative impacts. These research questions are studied across five papers: one conceptual and four empirical. The empirical papers comprise five studies: two longitudinal, two experimental, and one qualitative. In brief, this dissertation offers an exploration of passion in entrepreneurship and underscores its significance as a dynamic, multifaceted resource, thereby offering valuable insights for both scholars and practitioners in the field of entrepreneurship and beyond.

CHAPTER I: INTRODUCTION

Entrepreneurship is considered a powerful driver of economic development and societal welfare (Baumol et al., 2011; Schumpeter, 1934). Entrepreneurs stimulate change through innovation and technological advancement (Bradley et al., 2021; Smilor, 1997) while addressing unmet needs and challenges through their entrepreneurial endeavors (Fernhaber & Zou, 2022; Williams et al., 2023). Although extremely valuable for the economy and society, an entrepreneurial journey is not an easy road to travel for entrepreneurs themselves, who often face uncertainty, high pressure, and a multitude of challenges (Morris et al., 2012; Schindehutte et al., 2006). The entrepreneurial landscape is characterized by unpredictability and rapid changes (Lichtenstein et al., 2006) and involves high risk of failure. Given the often intense identification of entrepreneurs with their businesses, entrepreneurship is often compared to an emotional rollercoaster ride, leading entrepreneurs through exhilarating highs and into profoundly dark depths (De Cock et al., 2020; Shepherd et al., 2009; Shepherd & Cardon, 2009).

Nevertheless, entrepreneurs are often extremely motivated and resilient, persisting against all odds. The literature emphasizes passion as a powerful driving force behind these characteristics (Newman et al., 2021; Zhao & Liu, 2023). Smilor (1997, p. 342) states that “perhaps the most observed phenomenon of the entrepreneurial process is the passion of the entrepreneur.” Passion drives entrepreneurs, motivates them, increases their commitment, and strengthens their resilience and their magnetic effect on others, leading to success and high performance for entrepreneurs and their ventures alike (Adomako & Ahsan, 2022; Drnovsek et al., 2016; Fisher et al., 2018; Hubner et al., 2020; Mueller et al., 2017; Murnieks et al., 2014, Murnieks et al., 2016). It is therefore not surprising that habitual entrepreneurs are associated with high levels of passion (Thorgren & Wincent, 2015).

Passion can be defined as “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757). Individuals develop a passion for an activity through an internalization process in which the activity is integrated into the self. Vallerand et al. (2003, p. 757) state that someone having a passion for playing the guitar, for example, or reading, sees themselves as a “guitar player” or a “reader.” After passion is created through the internalization of an activity, its development is ongoing (Vallerand, 2010, 2015). According to the dualistic model of passion developed by Vallerand et al. (2003), there are two types of passion: harmonious passion, a free and flexible form of engagement, and obsessive passion, which is characterized by a pressured way of pursuing one’s passion (Vallerand, 2010, 2015). Research on passion in entrepreneurship has mainly emphasized its functional side, with numerous beneficial consequences for the entrepreneur; however, some voices point to the potential risks associated with extreme forms of passion, namely obsessive passion (e.g., Ho & Pollack, 2014; Newman et al., 2021; Pollack et al., 2020; Stroe et al., 2020).

Although scholars originally considered passion to be a rather stable asset, recent research has identified short-term variations (Collewaert et al., 2016; Gielnik et al., 2015, Gielnik et al., 2017; Lex et al., 2022). For instance, passion is built by investing effort (Gielnik et al., 2015), interpersonal commitment, and by making the entrepreneurial work central to one’s overall identity (Murnieks, Cardon, et al., 2020; Murnieks et al., 2014). These findings give us pause in treating passion in entrepreneurship as a stable construct, raising questions regarding how and when passion fluctuates over time.

This dissertation focuses on passion in entrepreneurship, specifically on its functional effects, dynamic developments, and the ambiguities related to the obsessive form of passion.

1.1 Research Questions

Despite significant research advances on passion in entrepreneurship, three key questions continue to puzzle entrepreneurship scholars as well as those from the broader fields of management and psychology. Why does passion deliver so many positive effects? How does passion develop over time? How can the risks of extreme forms of passion, such as obsessive passion, be mitigated so that it becomes a functional resource? Figure 1 presents the overall research model used to investigate these three research questions.

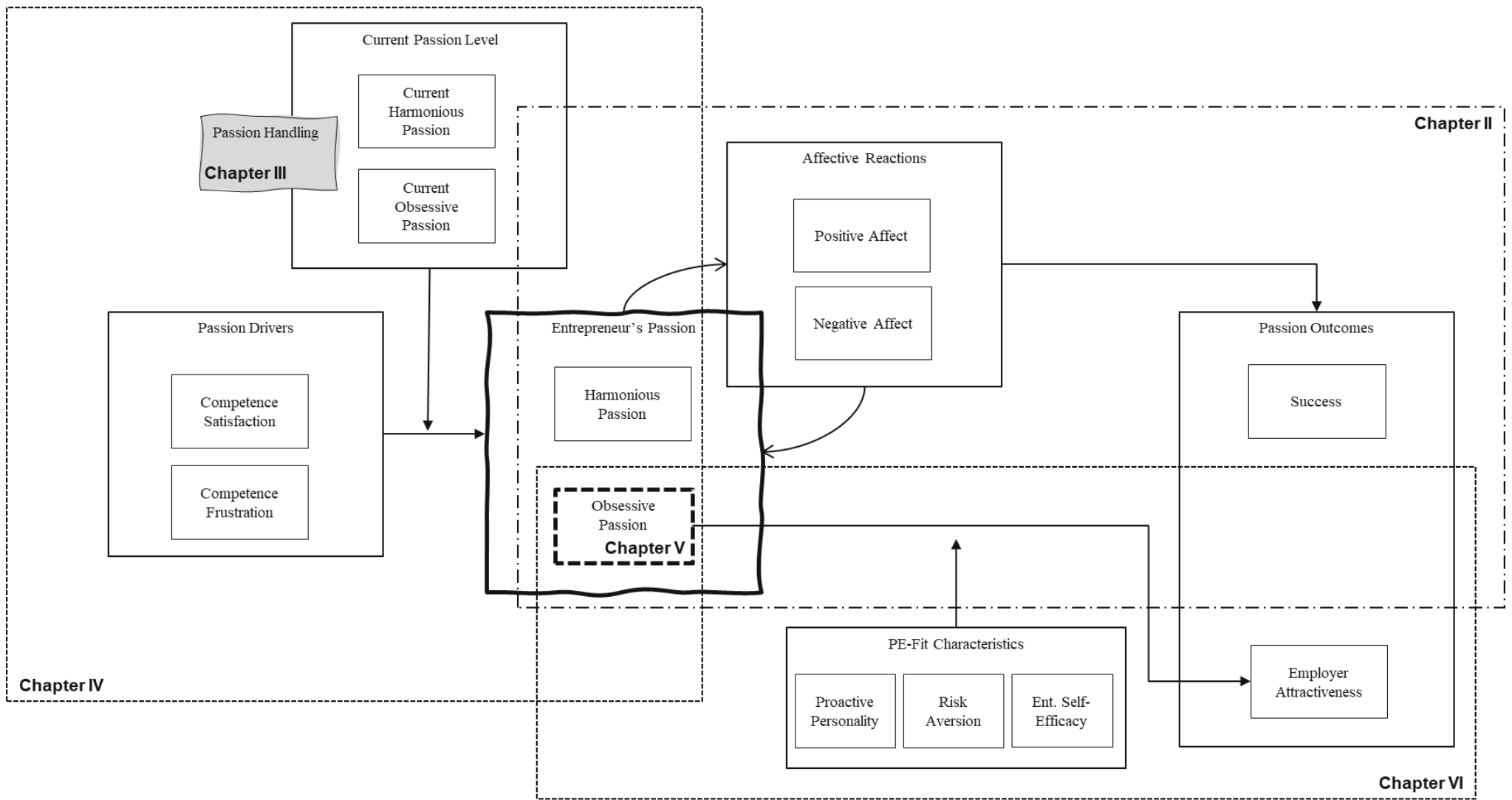


Figure 1. Overall research model investigating the role of passion in entrepreneurship

At the core of the model is passion in its two basic forms: harmonious and obsessive. Chapter II focuses on the functionality of passion and how it benefits entrepreneurs by establishing a new passion function: affect-regulation. Specifically, harmonious passion upregulates positive affect and supports entrepreneurs to downregulate their negative affect. By contrast, obsessive passion upregulates both positive and negative affect. Furthermore, this dissertation identifies two main benefits passion provides, namely the individual-level perceptions of entrepreneurial success and a positive signaling effect that increases the attractiveness of a startup to prospective employees (Chapter II and Chapter VI). We then answer Research Question 2 by investigating the drivers of passion, the mechanisms (contingency effects) of its development, and its dynamics over time, including time-lagged effects (Chapter IV). We address Research Question 3 by reflecting the ambivalent nature and potential risks of the obsessive form of passion, which are covered in Chapters III and V.

1.1.1 The Functionality of Passion

Entrepreneurs are driven by their passion, which provides numerous benefits (Astakhova et al., 2022; Newman et al., 2021; Pollack et al., 2020). For instance, passion helps entrepreneurs persist and succeed (Feng & Chen, 2020; Fisher et al., 2018; Murnieks et al., 2014). In interactions with stakeholders, passion signals for instance commitment and tenacity and therefore can convince investors and secure funding (e.g., Mitteness et al., 2012; Murnieks et al., 2016; Warnick et al., 2018), attract co-founders (Fu et al., 2022), and entice new employees (Lewis & Cardon, 2020; Piva & Stroe, 2023). Furthermore, entrepreneurs use their passion to motivate their employees to higher levels of commitment and put in greater effort (Breugst et al., 2012; Hubner et al., 2020), all of which makes passion a valuable personal resource (De Clercq & Belausteguigoitia, 2019; Stevenson et al., 2023). In line with this, the first research question focuses on the functionality of passion in entrepreneurship:

Research Question 1: Functionality of passion: How do the harmonious and obsessive forms of passion benefit entrepreneurs as resources?

This dissertation investigates Research Question 1 through the two studies covered in Chapters II and VI. The study in Chapter II, “Passion in Entrepreneurship: Its Role as a Resource Helping Entrepreneurs Succeed Through its Affect-Regulatory Function,” conceptualizes passion as a valuable psychological resource and introduces a new function of passion: its beneficial role in entrepreneurs’ affect regulation. The study finds that both harmonious and obsessive passion enhance entrepreneurs’ perceived success through positive affect, while harmonious passion effectively reduces negative affect. These findings highlight the role of passion in helping entrepreneurs regulate their emotions to foster a positive, success-oriented attitude.

“Attracted or Repelled? Investigating Job Seekers’ Perceptions of Obsessive Entrepreneurs,” covered in Chapter VI, explores the role of obsessive passion in new venture recruitment. We develop a model that explains how job seekers perceive an entrepreneur’s obsessive passion using signaling theory (Spence, 1973) and person–environment (PE) fit theory (Kristof, 1996; Kristof-Brown et al., 2005, 2023), and find that passion is a valuable recruitment signal that helps attract suitable employees. The results indicate that the perception of obsessive passion is contingent on the characteristics of the job seeker, such as proactive personality, entrepreneurial self-efficacy, and risk tolerance. Specifically, the results emphasize that obsessive entrepreneurs appeal to proactive individuals with high entrepreneurial self-efficacy, whereas individuals with low scores in these areas or who are risk averse find obsessive passion unattractive. These results demonstrate that obsessive passion can benefit entrepreneurs as a recruitment tool by attracting candidates who are a good fit for the entrepreneurial environment.

These two studies underscore the functionality and benefits of passion in entrepreneurship, both as a determinant of success through supporting affect-regulation and as a signal of employer attractiveness to a particular subset of job seekers in the context of new venture recruitment.

1.1.2 The Dynamics of Passion

Since passion can provide so many benefits for entrepreneurs, understanding how to develop and nurture this precious asset is crucial (Astakhova et al., 2022; Newman et al., 2021; Pollack et al., 2020). Traditionally, passion was thought to develop and then remain stable over time; however, recent research emphasizes its dynamism (Bredehorst et al., 2023; Collewaert et al., 2016; Lex et al., 2022). According to Vallerand (2010, 2015) the development of passion is an ongoing process; and once established, passion can fluctuate, grow, and diminish, based on prevailing conditions and circumstances. Several previous studies have called for a better understanding of the drivers and mechanisms of how passion develops over time (Astakhova et al., 2022; Lex et al., 2019; Newman et al., 2021; Pollack et al., 2020; Zhao & Liu, 2023). These works adopt the perspective that being passionate is not a given; it is essential to investigate how and why passion develops, how it can be fostered, and why it sometimes fades away (Bredehorst et al., 2023; Collewaert et al., 2016; Kakarika et al., 2022). This gives rise to the second research question:

Research Question 2: Passion dynamics: How does passion develop over time?

This is investigated using the multi-study investigation laid out in Chapter IV and the study in Chapter II, which covers the aspect of reciprocal passion dynamics. “Passionate Today, Passionate Tomorrow? Examining the Self-Regulating and Self-Enhancing Functions of Passion” (Chapter IV) examines the development of entrepreneurial passion from a

passion-as-a-resource perspective. It integrates competence satisfaction and frustration as passion drivers and includes current passion levels, and whether it is harmonious or obsessive passion, demonstrating that the effects of competence experiences on passion development vary based on existing passion levels. The findings show that high levels of harmonious passion exhibit a self-regulating function, reducing the influence of competence experiences, while high levels of obsessive passion show a self-enhancing function, amplifying these effects.

The study in Chapter II reveals the reciprocal nature of passion dynamics by showing that passion regulates affect while simultaneously being influenced by affect: positive affect increases obsessive and harmonious passion and negative affect diminishes harmonious passion and enhances obsessive passion. These two studies offer new insights into how entrepreneurial passion evolves, highlighting its reciprocal and dynamic nature and the role of existing passion levels in shaping its development.

1.1.3 The Ambiguities of Passion

Although most studies focus on the functionality and benefits of passion in various contexts (Newman et al., 2021; Pollack et al., 2020), some recent research notes potential risks with obsessive passion in particular (De Mol et al., 2018; Ho & Pollack, 2014; Stroe et al., 2020). The dualistic model of passion differentiates between harmonious and obsessive passion. Harmonious passion is characterized by the harmonious integration of the passion activity into an individual's life, and engagement in the activity stems from mere pleasure and enjoyment without any contingencies attached (Mageau et al., 2009; Vallerand, 2010, 2015; Vallerand et al., 2003). With obsessive passion, on the other hand, the engagement is addictive, pressured, and characterized by intense focus (Bélanger et al., 2013b; Landay et al., 2022; Vallerand, 2015; Vallerand et al., 2003).

In demanding working conditions such as those in the entrepreneurial context, obsessive passion is in particular likely to develop and become prevalent (Stroe, Wincent et al., 2018). Research shows that obsessive passion can have various potentially harmful consequences, such as an increased risk of burnout, depression, or instances of aggressive behavior (Bredehorst et al., 2023; De Mol et al., 2018; Ho & Pollack, 2014; Houlfort et al., 2013; Philippe et al., 2010; Pollack et al., 2020; Trépanier et al., 2014). For instance, obsessively passionate individuals find it difficult to psychologically disengage from the activity; thus, they may constantly ruminate over related issues (Carpentier et al., 2012; Donahue et al., 2012; Pollack et al., 2020).

Although a great amount of research has focused on the negative aspects of obsessive passion, recent studies have also reported numerous positive outcomes. For instance, obsessive passion can be highly persuasive in investor relations, as it embodies qualities such as exceptional tenacity, strong motivation, and deep commitment (Murnieks et al., 2016). In addition, obsessive passion can also be beneficial in convincing potential co-founders to join a venture (Fu et al., 2022). Furthermore, Fisher et al. (2018) suggest that obsessively passionate entrepreneurs may experience enhanced success, owing to their increased resilience and heightened commitment. Accordingly, the third research question focuses on these potential ambiguities and risks associated with extreme forms of obsessive passion, as well as the advantages.

Research Question 3: Ambiguities with extreme forms of passion: How can entrepreneurs better understand the ambiguities associated with obsessive passion, and which strategies can most effectively harness its advantages?

This research question is addressed through two studies discussed in Chapters III and V. Chapter III presents a qualitative study entitled “Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion,” which reveals that individuals are not merely passive recipients of their obsessive passion. Instead, they can use various methods to actively manage it, influenced by their level of consciousness and their degree of control over it. These findings shift the perspective of entrepreneurs from that of passive possessors of obsessive passion to recognizing them as active agents who shape their passion. This active management helps to minimize negative consequences and maximize the positive outcomes.

Chapter V, “Illuminating the Dark Side: Uncovering the Layers of Obsessive Passion in Entrepreneurship,” delves into the mixed findings on obsessive passion, which has been traditionally viewed as the dark side of passion. By applying organismic integration theory—a sub-theory of self-determination theory (Ryan & Deci, 2000, 2020)—the study identifies four distinct types of obsessive passion; externally induced, introjected, value-driven, and integrated. This nuanced categorization allows for a more detailed understanding of how different pathways lead to each type of obsessive passion. Notably, the study suggests that each type is associated with distinct outcomes arising from unique underlying constraints.

Taken together, these two studies provide a refined theoretical understanding of obsessive passion and represent a significant step in resolving the ambiguities surrounding it, with the results demonstrating the ability of entrepreneurs to actively manage their obsessive passion. This can empower entrepreneurs to strategically handle their passion, align it with their goals, and mitigate its potential downsides, thereby making maximum use of its benefits complementing the results for Research Question 1.

1.2 Methodological Approaches and Data

Table 1 shows an overview of the collected data and study types used to investigate the research questions. This dissertation is based on five independent, original datasets: two are longitudinal, two are different types of experimental data, and one is qualitative. The studies, alongside the respective design choices and samples, are described in detail in the respective chapters of this dissertation.

Table 1. Overview of methodological approaches and data

	Chapter II	Chapter III	Chapter IV	Chapter V	Chapter VI
Title	Passion in Entrepreneurship: Its Role as a Resource Helping Entrepreneurs Succeed Through its Affect-Regulatory Function	Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion	Passionate Today, Passionate Tomorrow? Examining the Self-Regulating and Self-Enhancing Functions of Passion	Illuminating the Dark Side: Uncovering the Layers of Obsessive Passion in Entrepreneurship	Attracted or Repelled? Investigating Job Seekers' Perceptions of Obsessive Entrepreneurs
Type of Study	Repeated-measurements field study spanning eight weekly waves	Qualitative study	Multi-study approach including a repeated-measurement field study spanning seven weekly waves and a randomized between-subjects experiment	Conceptual theory development	Metric conjoint experimental study
Data	1,691 observations nested within 227 entrepreneurs over time	Semi-structured interviews with 37 entrepreneurs	1,172 lagged observations nested within 209 entrepreneurs over time and an experiment with 191 entrepreneurs	Not applicable	2,896 decisions nested within 181 job seekers
Analytical Procedure	Random coefficient modeling with lagged variables and mediation analysis using the Monte Carlo method (20,000 repetitions); confirmatory factor analysis	Gioia method	Random coefficient modeling with lagged variables; univariate analysis of variance; t-test; ordinary least squares regression analysis, and simple slope analysis; confirmatory factor analysis	Not applicable	Multilevel analysis with cross-level interaction, and simple slope analysis; confirmatory factor analysis

1.3 Outline and Contributions

This cumulative dissertation investigated the role of passion in entrepreneurship. To achieve this aim, four empirical papers and one conceptual paper were developed. The knowledge generated from all five studies forms the basis for the results and contributions of this dissertation. Table 2 presents an overview of the articles encompassing this dissertation and provides detailed information about the authorial team for each research project.

Table 2. Overview of studies and contribution

Study	Presentations and Conference Proceedings	Theoretical Basis	Personal Contribution	Authors
Study 1: Passion in Entrepreneurship: Its Role as a Resource Helping Entrepreneurs Succeed Through its Affect-Regulation Function (Chapter II)	Streeb, M. N., Franzke, S. K., & Baum, M. (2022). Entrepreneurship as an emotional rollercoaster: Investigating the interplay of affect and passion. <i>Academy of Management Proceedings</i> , 2022(1), 12291. https://doi.org/10.5465/AMBPP.2022.12291abstract . Streeb, M. N.; Franzke, S.K.; Baum, M.; Gielnik, M. M. (2022). How harmonious and obsessive passion lead to entrepreneurial success: Unfolding the underlying process on a state level. Presented at the 25th Annual Interdisciplinary Conference on Entrepreneurship, Innovation and SMEs (G-Forum), 09/2022, Dresden, Germany.	Conservation of resources theory; dualistic model of passion	Project lead Conceptualization Study design Data collection Data analysis Writing, reviewing, and editing the manuscript Presentation at conferences Submitting to journals	Mirjam Nicole Streeb (lead author) Prof. Dr. Matthias Baum Dr. Sonja Kristin Franzke Prof. Dr. Michael Marcus Gielnik
Study 2: Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion (Chapter III)	Streeb, M. N., Franzke, S. K., & Baum, M. (2023). Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion. <i>Academy of Management Proceedings</i> , 2023(1), 12613. https://doi.org/10.5465/AMPROC.2023.12613abstract .	Self-regulatory theories; dualistic model of passion	Project lead Conceptualization Study design Data collection Data analysis Writing, reviewing, and editing the manuscript Presenting at conferences Submitting to journals	Mirjam Nicole Streeb (lead author) Dr. Sonja Kristin Franzke Prof. Dr. Matthias Baum
Study 3: Passionate Today, Passionate Tomorrow? Examining the Self-Regulating and Self-Enhancing Functions of Passion (Chapter IV)	Streeb, M.N.; Baum, M.; Gielnik, M. M.; Schack, M. (2023). A resource perspective on the development of passion in entrepreneurship: How passion builds and protects itself against depletion. Presented at the 26th Annual Interdisciplinary Conference on Entrepreneurship, Innovation and SMEs (G-Forum), 09/2023, Darmstadt, Germany. Streeb, M.N.; Baum, M.; Gielnik, M. M.; Schack, M. (2024). Passionate today, passionate tomorrow? Examining the self-enhancing and self-regulating effect of passion. Accepted for presentation at the 84th Scientific Annual Conference of the German Academic Association for Business Research (VHB e.V.), March 5–8, 2024, Leuphana University Lüneburg, Germany. Streeb, M.N.; Baum, M.; Gielnik, M. M.; Schack, M. (2024). Passionate today, passionate tomorrow? Examining the self-enhancing and self-regulating effect of passion. Accepted for presentation at the 44th Babson College Entrepreneurship Research Conference (BCERC), June 5–8, 2024, TUM Entrepreneurship Research Institute Munich, Germany.	Conservation of resources theory; dualistic model of passion	Project lead Conceptualization Study design Data collection Data analysis Writing, reviewing, and editing the manuscript Presenting at conferences Submitting to journals	Mirjam Nicole Streeb (lead author) Prof. Dr. Matthias Baum Prof. Dr. Michael Marcus Gielnik Mayleen Schack
Study 4: Illuminating the Dark Side: Uncovering the Layers of Obsessive Passion in Entrepreneurship (Chapter V)	Streeb, M.N.; Baum, M. (2023). Passion's degrees of freedom in entrepreneurship: Developing a conceptualization of four different obsessive passion types. Presented at the 26th Annual Interdisciplinary Conference on Entrepreneurship, Innovation and SMEs (G-Forum), 09/2023, Darmstadt, Germany.	Organismic integration theory (self-determination theory); dualistic model of passion	Project lead Conceptualization and theory development Writing, reviewing, and editing the manuscript Presenting at conferences	Mirjam Nicole Streeb (lead author) Prof. Dr. Matthias Baum
Study 5: Attracted or Repelled? Investigating Job Seekers' Perceptions of Obsessive Entrepreneurs (Chapter VI)		Person-environment fit theory; signaling theory; dualistic model of passion	Project lead Conceptualization Study design Data collection Data analysis Writing, reviewing, and editing the manuscript Submitting to conferences	Mirjam Nicole Streeb (lead author) Prof. Dr. Matthias Baum

In the first study, “Passion in Entrepreneurship: Its Role as a Resource Helping Entrepreneurs Succeed Through its Affect-Regulatory Function” (Chapter II; co-authored by Prof. Dr. Matthias Baum, Prof. Dr. Michael Marcus Gielnik, and Dr. Sonja Kristin Franzke), we propose a novel theoretical perspective on passion, suggesting that it acts as a psychological resource for entrepreneurs, supporting their affect regulation. In an eight-week study involving 227 entrepreneurs, we discovered that both harmonious and obsessive passion enhance entrepreneurs’ perceived success through positive affect. However, only harmonious passion uniquely reduces negative emotions. While both positive and negative affects increase obsessive passion, the latter diminishes harmonious passion. Our study highlights the function of passion as a psychological resource for entrepreneurs in affect regulation, which is advantageous as it fosters a positive, success-oriented attitude.

The second study, “Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion” (Chapter III; co-authored by Dr. Sonja Kristin Franzke and Prof. Dr. Matthias Baum), focuses on how entrepreneurs handle their obsessive passion. Recent research indicates that individuals can actively manage their passion rather than being mere passive victims (or beneficiaries) of it. While passion is a key driver of entrepreneurial success, its obsessive form can be dysfunctional and deliver negative outcomes. Therefore, understanding how entrepreneurs can control their obsessive passion is crucial. Our research, based on interviews with 37 entrepreneurs, reveals various strategies that differ in the degree to which entrepreneurs consciously and actively exert control over their obsessive passion. It also demonstrates to what extent entrepreneurs view themselves not merely as passive possessors of the trait of obsessive passion, but as agents who actively shape and manipulate it. This proactive approach aims to reduce the detrimental effects and enhance the positive consequences of obsessive passion.

The third study, “Passionate Today, Passionate Tomorrow? Examining the Self-Regulating and Self-Enhancing Functions of Passion” (Chapter IV; co-authored by Prof. Dr. Matthias Baum, Prof. Dr. Michael Marcus Gielnik, and Mayleen Schack) investigates the development of passion over time. Passion is a key asset of entrepreneurs that can change throughout entrepreneurial endeavors. We adopt a passion-as-a-resource perspective and develop a model to shed light on how passion is built or depleted over time. We incorporate the impact of experiences of competence (both satisfaction and frustration), current levels of passion, and whether the passion is harmonious or obsessive, on its evolution. Our model explains how passion either grows or wanes over time. We conducted two empirical studies to test our model: an experience-sampling study with 209 entrepreneurs (yielding 1,172 time-lagged observations across seven weeks) and an experiment involving 191 entrepreneurs. The results show that harmonious passion has a self-regulating effect, mitigating the impact of competence experiences, whereas obsessive passion has a self-enhancing function that stimulates the effects of both satisfying and frustrating experiences around competence.

The fourth study, “Illuminating the Dark Side: Uncovering the Layers of Obsessive Passion in Entrepreneurship” (Chapter V; co-authored by Prof. Dr. Matthias Baum) is a conceptual study that develops four distinct types of obsessive passion. Obsessive passion is often seen as the detrimental side of passion, yet entrepreneurship research has identified both positive and negative impacts of this type of passion. These mixed findings may be caused by ambiguities in the conceptualization of obsessive passion. Building on the organismic integration theory (Ryan & Deci, 2000, 2020), we propose four specific types of obsessive passion: externally induced, introjected, value-driven, and integrated. This categorization allows for a detailed exploration of the distinct paths leading to each type. We suggest that these distinct types of obsessive passion are related to different outcomes, originating from the unique constraints underlying each type. By refining our theoretical understanding of the

nature of obsessive passion, we aim to resolve the complexities of how obsessive passion functions in the entrepreneurial context.

The fifth study, “Attracted or Repelled? Investigating Job Seekers’ Perceptions of Obsessive Entrepreneurs” (Chapter VI; co-authored by Prof. Dr. Matthias Baum) examines the impact of entrepreneurs’ obsessive passion on job seekers, investigating whether it serves as an advantage or disadvantage when startups led by obsessively passionate entrepreneurs, are recruiting new employees. Using signaling theory (Spence, 1973) and PE fit theory (Kristof, 1996; Kristof-Brown et al., 2005, 2023), we created a model to elucidate how job seekers perceive an entrepreneur’s obsessive passion as a recruitment signal, considering the personal characteristics of the job seeker as factors influencing their interpretation of this signal. We tested our hypotheses with a metric conjoint experiment involving 181 job seekers, resulting in 2,896 decisions. Our findings show that the effect of an entrepreneur’s obsessive passion on the appeal of their venture as a potential employer depends on the job seeker’s characteristics; specifically, obsessive passion appeals only to job seekers who are highly proactive and have a high level of entrepreneurial self-efficacy, whereas those with lower scores in these areas, as well as those who are risk-averse, are likely to be deterred by such signals. These results add to the literature on new venture recruitment by showing how signals of obsessive passion can help in the self-selection process of applicants, ultimately attracting candidates who are a good fit for the entrepreneurial environment. After presenting each of these studies, Chapter VII summarizes the main findings of this dissertation and puts them into context by developing theoretical and practical implications.

CHAPTER II: PASSION IN ENTREPRENEURSHIP: ITS ROLE AS A RESOURCE HELPING ENTREPRENEURS SUCCEED THROUGH ITS AFFECT-REGULATION FUNCTION

Abstract

We introduce a new theoretical perspective on passion by theorizing that passion functions as a psychological resource in entrepreneurship that supports entrepreneurs' affect-regulation. Through a repeated-measures investigation spanning eight weeks with 227 entrepreneurs (1,691 observations), we found that both harmonious and obsessive passion promote entrepreneurs' perceived success via positive affect. However, only harmonious passion distinctively mitigates negative affect. Although positive and negative affect intensify obsessive passion, the latter diminishes harmonious passion. Our research outlines the role of passion as a psychological resource that aids entrepreneurs in regulating their affect, which provides benefits through cultivating positive and success-oriented attitudes.

Keywords: Dualistic model of passion, psychological resource, emotion regulation, obsessive passion, harmonious passion, affect, entrepreneurial success

2.1 Introduction

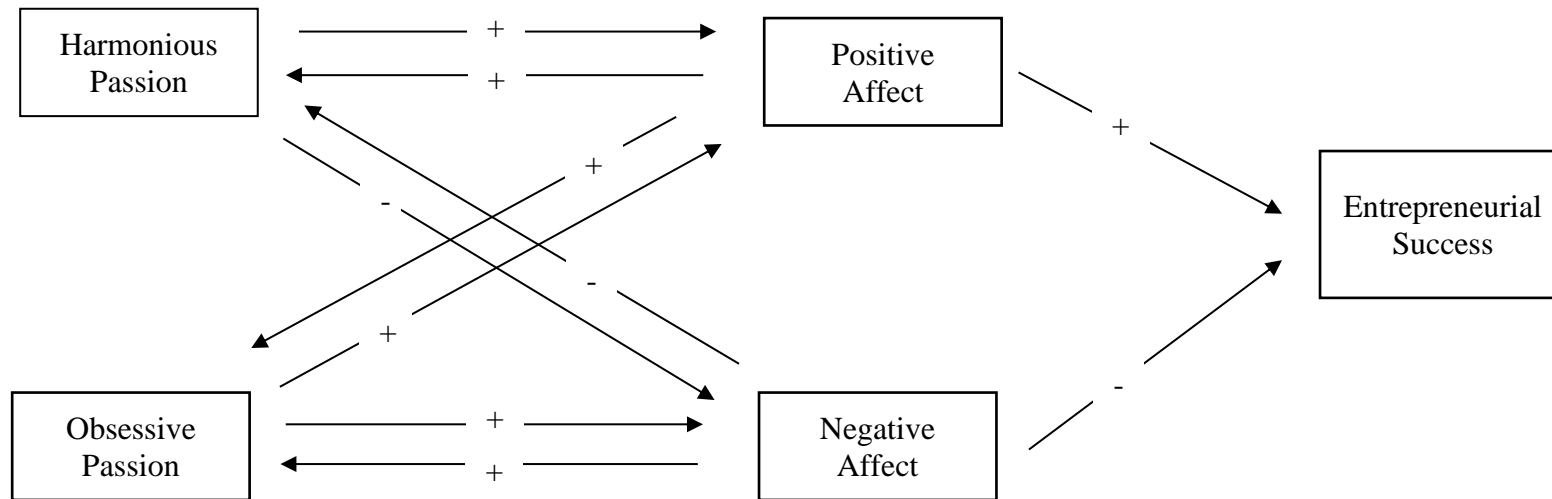
In today's rapidly evolving and competitive entrepreneurial landscape, entrepreneurs often find themselves on an emotional rollercoaster (De Cock et al., 2020; Morris et al., 2012; Uy et al., 2017). Success in this environment hinges upon entrepreneurs' ability to regulate their affective states (De Cock et al., 2020; Fang He et al., 2018; Sirén et al., 2020). However, how entrepreneurs manage to regulate both positive and negative affect remains unclear (De Cock et al., 2020; Stroe et al., 2020), raising questions regarding the *psychological resources* that facilitate entrepreneurs' ability to cope with their inherent emotional rollercoaster.

We delve into this burgeoning field by modeling passion as a psychological resource that helps entrepreneurs regulate their affect. Passion is “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757), and has been considered crucial in entrepreneurial activities (Newman et al., 2021; Zhao & Liu, 2023). Although conceptualizations of passion vary, research has consistently emphasized its potential to motivate entrepreneurs and their employees toward higher commitment, effort (Hubner et al., 2020), venture growth, and performance (Baum & Locke, 2004; Lex et al., 2022; Pollack et al., 2020). Recently, entrepreneurship research has begun to investigate the function of passion in entrepreneurs' affect regulation (Bredehorst et al., 2023; Stroe et al., 2020).

By highlighting passion as a psychological resource that helps entrepreneurs regulate their positive and negative affect, we offer a new perspective on *how* passion steers entrepreneurs toward a positive and successful trajectory. Psychological resources support an individual's goal achievement (Halbesleben et al., 2014; Hobfoll et al., 2018). Resources benefit their holders by helping them cope with negative states (Demerouti et al., 2001; Ten Brummelhuis et al., 2011) and facilitating positive states (Llorens et al., 2007; Salanova et al., 2006). Thus, psychological resources can be built up but also consumed over time,

particularly in terms of their relationship with affect (Fredrickson, 2001, 2013; Fredrickson et al., 2003). We consider passion in entrepreneurship to be one such psychological resource (De Clercq & Belausteguigoitia, 2019; Stevenson et al., 2023), serving as an internal reservoir, that provides entrepreneurs multifaceted advantages (Newman et al., 2021; Stevenson et al., 2023; Zhao & Liu, 2023). Passion has a stable component while also continuing to develop (Bredehorst et al., 2023; Vallerand, 2015) and has a symbiotic relationship with affect (Pollack et al., 2020; Stroe et al., 2020; Vallerand et al., 2003).

Drawing on this psychological resource perspective, we theorize that both harmonious and obsessive passion serve as internal reservoirs that set entrepreneurs up for success, although the pathways likely differ. Both forms of passion should upregulate positive affect; however, it is harmonious that provides a shielding effect against negative affect. Our theorizing also allows us to explain the reciprocal relationship between passion and affect, as resources can be both consumed and built up over time (Demerouti et al., 2004; Fredrickson & Joiner, 2002; Halbesleben et al., 2014; Ten Brummelhuis et al., 2011; Xanthopoulou et al., 2007). Therefore, we hypothesize that positive affect builds both types of passion, whereas negative affect diminishes harmonious while further fueling obsessive passion. Figure 2 shows our theoretical model.



Mediation effects:

- Harmonious passion → Positive affect → Entrepreneurial success (+)
- Harmonious passion → Negative affect → Entrepreneurial success (+)
- Obsessive passion → Positive affect → Entrepreneurial success (+)
- Obsessive passion → Negative affect → Entrepreneurial success (-)

Figure 2. Theoretical model of how harmonious and obsessive passion regulate affect

We test our hypothesized model using an eight-week repeated-measurement study including 1,691 observations of 227 entrepreneurs. This allowed us to observe the reciprocal relationships between passion and affect and assess how these affect regulation processes foster a success attitude in entrepreneurs. With this study, we aim to contribute to the literature on passion in entrepreneurship and beyond in the following ways.

First, this work contributes to the broader entrepreneurship and psychology literature by establishing that harmonious and obsessive passion do not act as direct antagonists, with one as good and the other as dysfunctional (Curran et al., 2015; Vallerand, 2010, 2015; Vallerand et al., 2019), but rather as two valuable psychological resources. We show that both facilitate entrepreneurs' affect regulation and thereby contribute to their successful psychological functioning. Accordingly, we extend recent efforts to promote a balanced view of harmonious and obsessive passion (Fisher et al., 2018; Fu et al., 2022; Stroe, Wincent, et al., 2018) and contribute to the understanding of their differing benefits. Thus, we emphasize the positive aspects of obsessive passion by highlighting how it enhances perceived entrepreneurial success through its affect-regulation function.

Second, conceptualizing passion as a psychological resource allows us to model it as an outcome of affective processes. This way, we advance the dynamic view on passion, not only perceiving it as a trait-like construct but also investigating its state-level development (Astakhova et al., 2022; Bredehorst et al., 2023). Specifically, we show how harmonious and obsessive passion are built and consumed through affective experiences, thereby establishing positive and negative affective experiences in daily work-life as antecedents of passion. Thus, this study's findings complement the dualistic model of passion (Vallerand et al., 2003), which primarily adopts a static and long-term perspective on passion and its antecedents (Mageau et al., 2005; Vallerand et al., 2003, 2006), and our study adds to the recently

debated, but still scarcely observed, dynamic drivers of passion (Bredehorst et al., 2023; Curran et al., 2015; Pollack et al., 2020; Vallerand et al., 2014).

Third, we advance the entrepreneurship literature by outlining passion's role as a psychological resource with an affect-regulation function. This extends the conversation beyond the dominant motivational perspective on passion, which has focused on the effects of passion on entrepreneurial success via cognitive-motivational pathways (Cardon et al., 2009; Newman et al., 2021; Zhao & Liu, 2023). Notably, the psychological resource perspective (De Clercq & Belausteguigoitia, 2019; Stevenson et al., 2023) does not oppose the motivation-based research on passion in entrepreneurship. Instead, this approach is complementary in developing a theoretical perspective that explains the significance of passion in regulating affective states to cultivate a positive and success-oriented attitude.

2.2 Theory and Hypotheses

Passion as a Psychological Resource

Researchers have predominantly observed passion for entrepreneurial activities through the lens of its motivational potential to promote growth and performance (Baum & Locke, 2004; Cardon et al., 2009; Gielnik et al., 2017; Zhao & Liu, 2023). Passionate individuals experience a strong inclination toward spending a considerable amount of time and energy on a particular activity (Murnieks et al., 2014; Vallerand, 2010). Passion can be harmonious or obsessive (Vallerand et al., 2003), which are differentiated by how individuals integrate the activity for which they are passionate into their lives (De Mol et al., 2018; Fernet et al., 2014; Vallerand, 2015). Harmonious passionate individuals engage freely and flexibly in their entrepreneurial activity, which is harmoniously integrated with other activities in their lives. They easily detach from and switch between these activities and enjoy performing them all (Bredehorst et al., 2023; Donahue et al., 2012; Murnieks et al., 2014).

Conversely, obsessively passionate individuals experience an uncontrollable urge to pursue an activity, which consumes a disproportionate amount of time and energy (Murnieks, Cardon, et al., 2020; Vallerand et al., 2003). These individuals have difficulties detaching (Bredehorst et al., 2023), which jeopardizes their enjoyment of other activities (Vallerand, 2010, 2015). Their self-esteem depends on how well they perform in relation to their passion; thus, they are more psychologically dependent on their entrepreneurial activity (Lafrenière et al., 2012; Mageau et al., 2011). Notably, although harmonious and obsessive passion differ, both are motivational forces that can stimulate performance (Bonneville-Roussy et al., 2013; Thorgren & Wincent, 2015; Vallerand et al., 2007; Vallerand et al., 2008). In this study, we contribute to the motivational perspective on passion by adopting a psychological resource perspective. We consider passion to be a psychological resource because it is a personal reservoir that benefits passionate individuals in many ways and not only through its motivational function (Curran et al., 2015; De Clercq & Belausteguigoitia, 2019; Pollack et al., 2020; Stevenson et al., 2023; Vallerand, 2010, 2015).

Conservation of resources theory (Hobfoll, 1989) defines resources as valued entities (personal, object, energy, condition) central to an individual's goal achievement (Halbesleben et al., 2014; Hobfoll et al., 2018). Psychological resources are valuable because individuals can use them to handle stressful working conditions, cope with adversity, and progress toward their goals (Alvarez & Busenitz, 2001; De Clercq & Belausteguigoitia, 2019; Luchman & González-Morales, 2013; Stevenson et al., 2023). Specifically, psychological resources have a regulatory function for coping with negative and maintaining positive affect (Fredrickson et al., 2003; Garland et al., 2010). Psychological resources are simultaneously stable and prone to change (Halbesleben et al., 2014; Xanthopoulou et al., 2007) because they can both endure and fluctuate over time, such as by being built up or consumed through affective experiences (Demerouti et al., 2004; Fredrickson, 2001, 2013). The concept that resources set individuals

on trajectories of psychological growth and success by forming self-enhancing reciprocal relationships with affect has been gaining momentum in the resource literature (Cohn et al., 2009; Kok et al., 2013). Accordingly, resources foster an attitude that aligns with and orients individuals toward success.

Notably, although generally positive, the value of a resource may vary across situations. For example, valuable and positive resources may have adverse side effects in certain contexts or when used to achieve specific goals. Prior research has described this as the multifinality of resources (Halbesleben et al., 2014; Kruglanski et al., 2013). Multifinality means that resources are not exclusively used to achieve one goal but hold more general value that can be utilized in different situations (Halbesleben et al., 2014; Kruglanski et al., 2013), with an outcome that is not necessarily functional or positive. For example, emotional intelligence is a resource that provides general value because it allows an individual to accurately perceive and process emotional information. This can be used to enhance work performance but could also increase the likelihood of deviant workplace behavior (Winkel et al., 2011), which an employee's superior might consider dysfunctional. Therefore, we consider that passion—particularly in the case of obsessive passion—may also have adverse effects.

A psychological resource perspective on passion allows us to theorize positive and negative affect as antecedents (as well as outcomes) of passion. Handling challenging situations and adversity requires coping resources (De Clercq & Belausteguigoitia, 2019; Demerouti et al., 2001; Hobfoll et al., 2003; Stevenson et al., 2023). Negative affect indicates that a situation is not proceeding as desired (Carver & Scheier, 2000) and requires resources to handle it. In contrast, positive affect builds psychological resources by allowing cognitive flexibility (Elliot, 2006; Fredrickson, 2001, 2013) and acting as a positive signal that a

situation is occurring as desired (Carver & Scheier, 1990). Such positive and enhancing states build resources (Bono et al., 2013).

Although affect is essential to understanding passion, these two constructs are distinct. Passion is an inclination or preference for a specific activity in which individuals invest time and energy (Vallerand et al., 2003), whereas affective states are emotional experiences that can have either positive or negative valence (Feldman Barrett, 2006; Watson & Tellegen, 1985). Thus, passion and affect load on different factors (Vallerand, 2015).

Reciprocal Relationship Between Passion and Affect

Passion as an Antecedent of Affect

Affect regulation is an essential mechanism through which psychological resources operate. Resources can enhance positive affect (Fredrickson, 1998, 2001, 2013) and protect against negative affect, which has been described as their shielding effect (Fredrickson et al., 2000, 2003; Garland et al., 2010). Furthermore, psychological resources can enter reciprocal relationships with affect in which they are built up or depleted (De Cuyper et al., 2012; Fredrickson & Joiner, 2002; Garland et al., 2010). Accordingly, we posit that harmonious and obsessive passion, as psychological resources, have an affect-regulation function.

We expect harmonious passion to support affect regulation through upregulating positive affect and shielding against negative affect because it allows individuals to enjoy activities to a greater extent and flexibly (dis)engage from sources eliciting negative affect (Vallerand, 2015). Harmonious passion is characterized by flexible and unpressured activity engagement, allowing individuals to experience positive affect by enjoying and appreciating their passion activity (Vallerand, 2010; Vallerand et al., 2003). This type of activity engagement facilitates positive affect because no contingencies are attached (Bonneville-Roussy et al., 2013; Carpentier & Mageau, 2019; Fernet et al., 2014). Furthermore,

harmonious passion positively influences individuals' cognitive judgments of emotion-eliciting events, thereby contributing to positive affective experiences (Lavoie et al., 2021).

In addition, we argue that entrepreneurs can use their harmonious passion to downregulate negative affect through its shielding effect. Our resource perspective suggests that resources can shield against demanding and negative influences (De Clercq & Belausteguigoitia, 2019; Demerouti et al., 2004; Fredrickson et al., 2003; Garland et al., 2010; Stevenson et al., 2023; Tugade & Fredrickson, 2004). Accordingly, we theorize that harmonious passion can be used as a resource to cope with negatively perceived situations.

Negative affect indicates that something is harmful and disadvantageous (Carver & Scheier, 2000); however, harmoniously passionate entrepreneurs can easily switch their attention to something else because of the flexibility and lack of pressure when engaging in activities that come with harmonious passion. Individuals in a harmoniously passionate state assume full control (Vallerand et al., 2003), allowing them to purposefully experience positive situations and disengage from negative stimuli. For example, an entrepreneur will experience negative affect when receiving a call from a potential investor informing them that an expected investment will not be granted. Harmonious passion allows entrepreneurs to flexibly detach and engage in another activity such as recovery (Bredehorst et al., 2023). Purposefully switching attention distracts from the emotion-eliciting source and helps to downregulate negative affect (Gross, 1998). After having engaged in the recovery activity and downregulated the negative affect associated with the investor's call, a harmoniously passionate entrepreneur will return to a more neutral state and may begin identifying alternative financing options. This is because harmoniously passionate entrepreneurs can quickly disengage from ruminative thoughts about their venture that may fuel negative affect (Carpentier et al., 2012; Donahue et al., 2012). Therefore, we argue that harmonious passion

can act as a psychological resource that supports entrepreneurs in regulating their affect by flexibly disengaging from situations that elicit negative emotions.

Hypothesis 1a/b: Harmonious passion regulates affect in a manner that a) increases positive affect and b) decreases negative affect.

Through our passion-as-a-resource lens, we argue that obsessive passion also supports affect regulation. However, its specific function differs from that of harmonious passion. Obsessively passionate individuals do not withdraw and seek out distraction, but instead, they obsessively engage in tasks and have no control over their excessive engagement (Bredehorst et al., 2023; De Mol et al., 2018). This is because obsessive passion is characterized by a rigid form of task pursuit from which individuals cannot flexibly disengage (Vallerand et al., 2003).

Obsessively passionate individuals allot a disproportionate share of their lives to the activity about which they are passionate and suppress alternative goals (Bélanger et al., 2013b; Vallerand et al., 2003). Indeed, obsessive passion is associated with enhanced concentration (Curran et al., 2015) with fewer off-task and more on-task thoughts at work (Thorgren et al., 2013). Obsessive passion increases one's focus on the current situation; therefore, we predict that obsessive passion intensifies affective experiences, meaning that it upregulates both positive and negative affective states. Entrepreneurs work in highly uncertain and fast-changing environments (McMullen & Shepherd, 2006), where working memory is significantly burdened with incoming information. The psychological resource of obsessive passion enhances the experience of positive affect helping individuals focus on their entrepreneurial activity and creating optimism. In this way, obsessive passion has been shown to focus one's thoughts on winning and shield one's attention from contradictory information (Mageau et al., 2005; Schellenberg et al., 2013; Thorgren et al., 2013). Therefore, obsessive passion may help entrepreneurs focus on the "glorious future" they envision (Mitchell et al.,

2002, 2004), providing a valuable psychological resource for remaining focused and optimistic when confronted with challenges. Thus, obsessive passion should effectively increase positive affect.

Obsessive passion implies an inflexible and rigid form of cognitive functioning (Vallerand, 2010; Vallerand et al., 2003). We expect that inflexible activity engagement inhibits distractions through the purposeful selection of more positive emotion-eliciting sources, thereby upregulating negative affect. Obsessively passionate individuals will be cognitively focused on an activity, thereby suppressing alternative goals and activities (Bélanger et al., 2013b), and will be unable to detach and recover (Bredehorst et al., 2023). The rigidity of these cognitive patterns impedes flexible mental disengagement and the ability to cognitively decouple from a problem, making it more likely that negative affective reactions will be more salient for obsessively passionate entrepreneurs.

This aligns with our resource perspective, which posits that resources are multifinal and can be used to achieve different goals (Halbesleben et al., 2014). Their value is relative and results from the fit between the psychological resource and the goal. Each resource has a specific function and inherent mechanism that may lead to a multitude of outcomes depending on the situation (Halbesleben et al., 2014; Winkel et al., 2011). External signals are vital for obsessively passionate individuals because they constantly seek approval or disapproval, which affects their self-esteem (Donahue et al., 2009). Previous research has shown that when confronted with failure information, obsessive passionate individuals increase their engagement and performance (Bélanger et al., 2013a). Thus, we theorize that, when perceiving negative affect indicating a shortcoming (Carver & Scheier, 2000), obsessively passionate individuals will not withdraw and seek distraction (Bredehorst et al., 2023), but will instead obsessively engage in the task, thereby increasing their excessive engagement. For example, when obsessive entrepreneurs are rejected by potential investors, they cannot

detach and will ruminate on the incident, because external validation is highly important for their self-esteem. This then upregulates their negative affective reaction. As such, Stroe et al. (2020) showed that the negative affect elicited by affective events, such as a pitching competition, is amplified through obsessive passion. Accordingly, we posit the following hypotheses:

Hypothesis 2a/b: Obsessive passion regulates affect in a manner that a) increases positive affect and b) increases negative affect.

Affect as an Antecedent of Passion

Previous research has suggested that affect is essential in building or reducing psychological resources (Fredrickson, 1998, 2001, 2013; Garland et al., 2010). Therefore, we contend that, although passion helps regulate affect, affect can also either build or deplete passion. Specifically, we argue that positive affect builds harmonious *and* obsessive passion. Our psychological resource perspective suggests that positive affect can build psychological resources that set individuals on trajectories of growth and success (Fredrickson, 2013; Fredrickson et al., 2003; Fredrickson & Joiner, 2002; Garland et al., 2010; Kok et al., 2013). Positive affective states act as positive signals, indicating that a situation is progressing as desired (Carver & Scheier, 1990). This provides confirmation and encouragement that builds an individual's psychological resources (Bono et al., 2013).

Positive affect triggers approach motivation (Elliot, 2006). Positively evaluating one's status and direction of movement creates a sense of progression and a perception of competence, enhancing the development of harmonious and obsessive passion toward an activity (Forest et al., 2012; Vallerand, 2010). For example, when harmoniously or obsessively passionate entrepreneurs receive a call from an investor to inform them about an upcoming investment, they will have positive feelings toward it. They will experience a sense of progression and confirmation of their status and increase their inclination toward their

entrepreneurial activity. They will likely be encouraged to invest more time and energy in that activity, which will build up their passion resource. Accordingly, we posit the following hypotheses:

Hypothesis 3a/b: Positive affect enhances a) harmonious passion and b) obsessive passion.

We argue that the role of negative affect differs between harmonious and obsessive passion. Negative affect consumes harmonious passion but enhances obsessive passion. Negative affective experiences inform entrepreneurs that their current state is non-optimal, and their current progress is inadequate or slower than expected (Carver & Scheier, 2000). For example, after an unfavorable investor call, entrepreneurs experience negative affect, making them doubt their time and energy investment into the entrepreneurial activity. Negative affective experiences trigger the tendency to avoid and move away from an activity (Elliot, 2006). When entrepreneurial passion is characterized by a flexible engagement (harmonious passion), entrepreneurs are likely to reduce their inclination (i.e., their harmonious passion) toward the entrepreneurial activity. Accordingly, we theorize that harmonious passion is consumed as a resource to cope with negatively perceived situations and adversity.

In contrast to the mechanism underlying harmonious passion, we argue that negative affect can build obsessive passion. Obsessive passion implies that individuals are controlled by an activity that takes up a disproportionate share of their lives (Vallerand et al., 2003). They feel compelled to engage in this activity and are unable to withdraw from it (Vallerand, 2010). Negative affect indicates that something is going wrong and an individual is not succeeding (Carver & Scheier, 1990, 2000), which may trigger a fight-or-flight response (Cannon, 1915). Negative affect increases focus and restricts the field of view to address the negative situation (Fredrickson, 2013; Schmitz et al., 2009). Obsessive passion inhibits

cognitive withdrawal (the strategy that harmonious passionate individuals would apply). Because obsessively passionate individuals cannot cognitively withdraw, they are likely to increase their engagement to overcome their suboptimal condition. Thus, we posit the following hypotheses:

Hypothesis 4a/b: Negative affect a) reduces harmonious passion and b) enhances obsessive passion.

Affect Links the Relationship Between Passion and Entrepreneurial Success

We posit that both harmonious and obsessive passion are psychological resources that stimulate positive affect in entrepreneurs, which in turn should foster a success-facilitating attitude, enhancing their perceived success. Positive affect sets individuals on trajectories of growth and success (Fredrickson, 2013; Fredrickson et al., 2003; Fredrickson & Joiner, 2002; Garland et al., 2010; Kok et al., 2013) by altering cognition to broaden thought-action repertoires (Fredrickson, 2001, 2013; Fredrickson & Branigan, 2005). This allows different perspectives and new possibilities to emerge because positive affect widens entrepreneurs cognitive focus (Hayward et al., 2010; Kahn & Isen, 1993). In support of this, positive affect fosters opportunity recognition and expands skills and social networks (Baron, 2008). Additionally, positive affect fosters creativity and innovation (Baron, 2008; Baron & Tang, 2011) and increases entrepreneurial idea perception and motivation (Hayton & Cholakova, 2012). Thus, we argue that passion is a psychological resource that benefits entrepreneurs because it upregulates their positive affect, thereby facilitating a success-oriented psychological attitude that enhances their perceived entrepreneurial success.

Furthermore, we expect that only harmonious passion can downregulate negative affect, which is why it stimulates an additional mechanism other than obsessive passion and that should foster perceived entrepreneurial success. Our prior arguments suggest that harmonious passion dampens negative affect and obsessive passion increases it. Thus, we

posit that harmonious passion allows entrepreneurs to develop a positive and successful attitude by downregulating negative affect, whereas obsessive passion threatens this success-attitude by upregulating negative affect.

Negative affect narrows individuals' thought–action repertoires (Fredrickson & Branigan, 2005) by affecting their cognitions and perceptions related to higher attentional rigidity and fostering narrowed cognitive processing (Fredrickson & Joiner, 2002; Schmitz et al., 2009). Therefore, negative affect is associated with reduced opportunity recognition (Perry-Smith & Coff, 2011; Tang et al., 2012), a narrow set of goals (Delgado García et al., 2015), and damage to an individual's confidence in terms of their capacity for entrepreneurial success (Koellinger et al., 2007). These effects are detrimental to a positive attitude oriented toward success. Previous research has indicated that negative affect is associated with decreased venture success and survival (Baron, 2008; Fodor & Pinteá, 2017; Hayton & Cholakova, 2012).

Accordingly, we argue that harmonious passion is a psychological resource that enhances a success-oriented attitude by buffering negative affect and upregulating positive affect. Obsessive passion is a psychological resource with an ambivalent nature. It can upregulate negative affect and, as a result, harm a positive success perception, while also being able to upregulate positive affect, which should enhance perceived success. This argument leads to the following hypotheses:

Hypothesis 5a/b: The relationship between harmonious passion and perceived entrepreneurial success is mediated by a) positive affect and, b) negative affect.

Harmonious passion enhances positive affect and reduces negative affect. Positive (negative) affect is positively (negatively) related to perceived entrepreneurial success.

Hypothesis 6a/b: The relationship between obsessive passion and perceived entrepreneurial success is mediated by a) positive affect and, b) negative affect.

Obsessive passion enhances both positive and negative affect and positive (negative) affect is positively (negatively) related to perceived entrepreneurial success.

2.3 Methodology

Study Design and Participants

We used a repeated-measurement design to capture the temporal variations and reciprocal relationships between our variables of interest (Uy et al., 2010). Repeated-measurement designs have been widely used to examine fluctuations in affect and related constructs (Gabriel et al., 2011; Scott & Barnes, 2011). We measured passion and affect weekly for eight weeks (t0–t7), which aligns with previous research suggesting that shifts in affect (Lyubomirsky et al., 2005; Parkinson et al., 1995; Updegraff et al., 2004; Watson et al., 1992) and the development of passion can be observed over weeks (Bredehorst et al., 2023; Gielnik et al., 2015, 2017; Lex et al., 2022). We collected the data weekly for eight weeks to balance the need to not overburden participants with too many repeated measurements and the expected reciprocal relationships between passion and affect.

The first questionnaire (t0) was to capture baseline measurements of passion and positive and negative affect, and collect information on the control variables (age, gender, company age). At the beginning of the first questionnaire, participants provided informed consent for participating in the study. Using the questionnaires for t1 to t7, we collected repeated measurements of the time-variant variables (passion and affect). We measured our dependent variable, perceived entrepreneurial success, in t0 and t7.

We validated our questionnaire in a pre-test of five representative entrepreneurs from our target group. Using verbal protocols, we asked them to “think out loud” (Ericsson, 2006; Ransdell, 1995; Simon & Ericsson, 1984) while responding to the questions. The responses confirmed that the constructs measured were understood as intended.

Our sample comprised German entrepreneurs who had opened their most recent startup within the last 10 years (e.g., Engel et al., 2023; Hubner et al., 2020; McKelvie et al., 2018; Shafi et al., 2020). We recruited participants through two professional social networks: LinkedIn and Xing. The search keywords were: “(co-)founder,” “(female-)founder,” and “Gründer:in.” Following previous research, we searched for entrepreneurs and self-employed individuals who currently owned and managed their business ventures (Weinberger et al., 2018; Zhu et al., 2021). We sent a personal message to 2006 entrepreneurs inviting them to participate in the study, of which 328 agreed; 292 participants took part in at least one measurement wave. In total, we collected 1,957 observations. We continuously sent reminder messages throughout the data collection process to ensure ongoing participation. After collecting the data, we excluded those participants who responded to fewer than three questionnaires (Bledow et al., 2013; Ployhart & Vandenberg, 2010), and our final sample comprised 257 participants and 1,894 observations.

We then applied various cleaning strategies, excluding participants who reported their youngest company to be older than 10 years (e.g., Hubner et al., 2020; McKelvie et al., 2018; Shafi et al., 2020), resulting in 247 participants and 1,833 observations. We identified responses that could be considered careless and applied cleaning techniques to avoid the potential systematic bias these introduce (longstring and averagestring indices). We identified participant responses that were considered unreasonable (e.g., unreasonable age reports of 2 and 1.5), and excluded participants who failed to respond correctly to the bogus item. Our final sample comprised 227 entrepreneurs, from which we obtained 1,691 observations (7.5 observations per participant, on average).

In our final sample, 117 (52%) participants were female. The participants ranged in age from 20 to 63 years, averaging 38 years (standard deviation [SD] = 9.70). In our sample, 9% of the participants held a PhD, 77% a university degree, 5% a diploma, and 4% an

apprenticeship certificate, with 2% having completed secondary school education and the remaining 4% having reported some other educational background. Of the participants, 46% had (co-)founded more than one business. The average venture age was 3.15 years ($SD = 3.78$). On average, participants had (co-)started two businesses ($SD = 1.60$). These characteristics and the similarity of our sample composition to those in other recently published entrepreneurship studies (e.g., Lanivich et al., 2021) indicated that the sample suited our research question.

To evaluate the non-response bias, we used the two-sided Kolmogorov–Smirnov test (Siegel, 1956). This test shows whether two samples (in this study, respondents versus non-respondents) are cumulative distributions drawn from the same population. We drew random samples ($n = 250$) from the list of contacted individuals and compared their gender, age, and education information with the information of the final participants. All tests showed non-significant results, indicating a low risk of non-response bias.

Measures

Following Uy et al.'s (2010) recommendation for experience sampling, all items were consistently measured on a five-point Likert scale (1 = do not agree at all; 5 = totally agree). Two trained researchers familiar with the research field translated the items into German using a back-translation process (Brislin, 1970).

Harmonious and Obsessive Passion

We measured harmonious and obsessive passion based on the dualistic model of passion. In the first questionnaire (t_0), we measured passion using Vallerand's passion scale, which includes six items for harmonious passion and six for obsessive passion (Marsh et al., 2013; Vallerand, 2010, 2015). We adapted the scale to fit the entrepreneurship context (Stroe et al., 2020; Zhao & Liu, 2023) and the weekly measurement setting. We followed the approaches of previous studies (Bredehorst et al., 2023; Murnieks, Cardon, et al., 2020; Stroe,

Wincent, et al., 2018; Uy et al., 2015) and their recommendations for keeping participant fatigue and dropout at acceptable levels (Uy et al., 2010) and used shortened versions of our study's measures in follow-up measurement waves (t1–t7). We selected the two items with the highest factor loadings in t0 for harmonious (.810 and .850) and obsessive (.708 and .794) passion and used these for the measurements at t1 to t7. The chosen weekly measurement items for harmonious passion were “currently, my entrepreneurial activity is in harmony with other things that are part of me” and “currently, my entrepreneurial activity is in harmony with the other activities in my life.” The items for obsessive passion were “currently, I have almost an obsessive feeling for my entrepreneurial activity” and “currently, my entrepreneurial activity is so exciting that I sometimes lose control over it.” We computed the mean across the items. Cronbach's alpha for the eight weeks, on average, was $\alpha = 0.89$ (range = 0.81–0.92) for harmonious passion and $\alpha = 0.79$ (range: 0.74–0.85) for obsessive passion (see Appendix A).

Positive and Negative Affect

We captured affect using the Positive and Negative Affect Schedule scale of 10 items (Mackinnon et al., 1999). We measured affect at all measurements (t0–t7). Positive affect was measured using terms like “excited” or “inspired.” Negative affect was measured using terms like “afraid” or “distressed.” We calculated the mean across the items. Cronbach's alpha, on average, was $\alpha = 0.86$ (range = 0.78–0.89) for positive affect and $\alpha = 0.85$ (range: 0.78–0.89) for negative affect (see Appendix A).

Perceived Entrepreneurial Success

We measured perceived entrepreneurial success on the first (t0) and final (t7) questionnaires using an item adapted from Fisher et al. (2018): “In the last two months, I was a successful entrepreneur.” We measured it on a five-point Likert scale (1 = do not agree at all; 5 = totally agree). We used this measure as a proxy for a psychological attitude, which

captures a positive, encouraged, and self-confident psychological status that aligns entrepreneurs toward success. This measurement was selected because subjective success definitions may differ, and we wanted to ascertain an individual's inherent self-assessment of their own psychological success and subjective evaluation. Subjective evaluations of psychological attitudes that are narrow and unambiguous in scope, such as job satisfaction, fatigue, body weight satisfaction, self-efficacy, or self-esteem, are commonly captured with a single item (Allen et al., 2022; see Matthews et al., 2022 for an overview; Nagy, 2002; Van Hooff et al., 2007; Wanous et al., 1997). Such single-item measures have been shown to have comparable validity and reliability to multi-item measures (Ahmad et al., 2014; Ang & Eisend, 2018; Matthews et al., 2022) and are a legitimate choice for repeated-measurement designs to minimize the survey length, burden on the respondents, item repetition, and proportion of missing data (Drolet & Morrison, 2001; Gabriel et al., 2019; Rogelberg & Stanton, 2007).

Control Variables

We controlled for the entrepreneurs' gender, age, and company age because previous research has indicated that these constructs are essential in determining success and affect and passion experience in the entrepreneurial context (Davidsson & Honig, 2003; Fu et al., 2022; Murnieks, Cardon, et al., 2020). For example, gender has been shown to influence passion development (Murnieks, Cardon, et al., 2020). By controlling for company age, we accounted for the potential influence of different venture stages on entrepreneurs' perceptions of challenges, which may influence the experience of positive and negative affect. Younger or new entrepreneurs have less experience handling their emotions than older entrepreneurs in later venture stages. We measured the control variables at t0, and we included a time index variable in the models to control for trend effects.

Data Analysis

All analyses were conducted using the statistical software R (R Core Team, 2022). We used random coefficient modeling (REML in the nlme package version 3.1.158 (Pinheiro et al., 2021) to test the relationships between passion and affect. This approach accounted for dependencies between the observations of different measurement waves (Bliese & Ployhart, 2002). We created lagged versions of the variables (representing the values one week later) to control for autoregressive effects (Lex et al., 2022; Stevenson et al., 2023). This reduced the final number of observations to 1,490 (6,56 observations per participant, on average). We allowed intercepts to vary randomly across respondents. For the random coefficient models, we reported conditional and marginal R^2 values as indicators of explained variance and meaningfulness (Nakagawa & Schielzeth, 2013). To assess the mediation models, we aggregated the harmonious and obsessive passion measurements and positive and negative affect over data collection waves. This was because the dependent variable of these models was perceived entrepreneurial success, which we measured at t0 and t7.

2.4 Results

Tables 3 and 4 show the descriptive statistics for the variables. The correlations did not exceed the critical value of 0.7 (Anderson et al., 2008). Furthermore, we calculated the variance inflation factor scores (VIFs) for all models and they were all below 2.5. Both metrics demonstrate that multicollinearity was not an issue in our analyses (O'Brien, 2007). Tables 5 and 6 show the regression analysis results. Figure 3 shows the effects of our hypothesized model.

Table 3. Descriptive statistics of variables at level 2 (participant level)

Variable	M	SD	1	2	3	4	5	6	7	8
1. Age	38.14	9.72								
2. Gender	0.52	0.50	.03							
3. Company age	3.15	3.78	.33**	-.16*						
4. Harmonious passion	3.56	0.79	.08	-.03	.07					
5. Obsessive passion	2.36	0.83	-.23**	-.12	-.06	-.27**				
6. Positive affect	3.84	0.55	.01	.00	.05	.40**	.23**			
7. Negative affect	2.14	0.67	-.19**	-.00	-.04	-.54**	.25**	-.37**		
8. Entrepreneurial success t0	3.85	0.89	-.01	-.07	.09	.23**	-.02	.47**	-.20**	
9. Entrepreneurial success t7	3.86	0.89	.03	.00	.08	.24**	.09	.52**	-.29**	.60**

Note. n = 227 participants; M = mean; SD = standard deviation; gender: 1 = female, 0 = male; * $p < .05$; ** $p < .01$.

Table 4. Descriptive statistics of variables at level 1 (observation level)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Entrepreneurial success t0	3.85	0.89															
2. Entrepreneurial success t7	3.86	0.89	.60**														
3. Positive affect t0	3.95	0.62	.42**	.26**													
4. Positive affect t1	3.95	0.61	.42**	.38**	.65**												
5. Positive affect t2	3.83	0.74	.38**	.30**	.53**	.56**											
6. Positive affect t3	3.77	0.76	.27**	.40**	.45**	.64**	.54**										
7. Positive affect t4	3.69	0.77	.38**	.43**	.48**	.57**	.50**	.67**									
8. Positive affect t5	3.77	0.74	.35**	.42**	.33**	.47**	.43**	.57**	.62**								
9. Positive affect t6	3.76	0.75	.31**	.44**	.33**	.48**	.37**	.54**	.59**	.62**							
10. Positive affect t7	3.91	0.70	.36**	.52**	.41**	.49**	.45**	.58**	.58**	.58**	.61**						
11. Negative affect t0	2.26	0.73	-.17**	-.19**	-.21**	-.14*	-.11	-.21**	-.29**	-.12	-.11	-.17*					
12. Negative affect t1	2.21	0.82	-.25**	-.32**	-.24**	-.21**	-.19**	-.22**	-.35**	-.18*	-.17*	-.30**	.70**				
13. Negative affect t2	2.20	0.80	-.22**	-.25**	-.26**	-.23**	-.40**	-.25**	-.30**	-.18*	-.16*	-.29**	.58**	.73**			
14. Negative affect t3	2.08	0.85	-.09	-.22**	-.17*	-.17*	-.26**	-.40**	-.35**	-.17*	-.19**	-.27**	.61**	.65**	.63**		
15. Negative affect t4	2.16	0.88	-.15*	-.20**	-.24**	-.25**	-.27**	-.41**	-.48**	-.31**	-.26**	-.33**	.57**	.64**	.63**	.77**	
16. Negative affect t5	2.08	0.77	-.11	-.20**	-.15*	-.18*	-.24**	-.29**	-.35**	-.39**	-.28**	-.30**	.50**	.59**	.64**	.64**	.76**
17. Negative affect t6	2.04	0.86	-.10	-.16*	-.17*	-.17*	-.13	-.18*	-.29**	-.19**	-.25**	-.26**	.53**	.58**	.61**	.55**	.68**
18. Negative affect t7	2.08	0.82	-.18*	-.34**	-.16*	-.17*	-.25**	-.29**	-.33**	-.25**	-.22**	-.45**	.46**	.64**	.58**	.61**	.69**
19. Harmonious passion t0	3.69	0.92	.24**	.26**	.30**	.32**	.24**	.18**	.29**	.23**	.14*	.15*	-.36**	-.41**	-.38**	-.30**	-.33**
20. Harmonious passion t1	3.51	1.00	.21**	.28**	.28**	.31**	.23**	.26**	.35**	.28**	.28**	.27**	-.32**	-.43**	-.37**	-.33**	-.36**
21. Harmonious passion t2	3.54	0.98	.19**	.14	.25**	.23**	.35**	.24**	.36**	.28**	.22**	.24**	-.37**	-.42**	-.50**	-.36**	-.44**
22. Harmonious passion t3	3.62	0.92	.10	.09	.24**	.31**	.29**	.38**	.39**	.27**	.25**	.20**	-.33**	-.35**	-.38**	-.46**	-.41**
23. Harmonious passion t4	3.53	1.04	.23**	.15*	.31**	.26**	.32**	.33**	.47**	.40**	.26**	.27**	-.37**	-.39**	-.41**	-.41**	-.52**
24. Harmonious passion t5	3.48	0.99	.14*	.12	.09	.12	.23**	.18*	.29**	.36**	.19**	.18*	-.25**	-.26**	-.33**	-.26**	-.39**
25. Harmonious passion t6	3.47	1.00	.15*	.12	.11	.16*	.17*	.16*	.29**	.29**	.26**	.30**	-.30**	-.37**	-.35**	-.32**	-.40**
26. Harmonious passion t7	3.48	0.97	.27**	.32**	.17*	.18**	.25**	.22**	.32**	.30**	.25**	.40**	-.25**	-.37**	-.35**	-.28**	-.35**
27. Obsessive passion t0	2.51	1.01	-.05	.05	.17**	.09	.13	.05	.03	.05	.04	.12	.27**	.21**	.11	.16*	.13
28. Obsessive passion t1	2.53	1.00	-.01	.05	.19**	.17*	.19**	.12	.04	.06	.12	.21**	.26**	.23**	.17*	.19**	.18*
29. Obsessive passion t2	2.41	0.98	.07	.14*	.18**	.15*	.29**	.15*	.13	.10	.15*	.23**	.24**	.23**	.19**	.17*	.17*
30. Obsessive passion t3	2.36	0.94	-.01	.08	.17*	.10	.20**	.16*	.11	.14*	.10	.18*	.21**	.19**	.18*	.17*	.22**
31. Obsessive passion t4	2.21	0.95	-.03	.12	.19**	.11	.14*	.13	.16*	.13	.15*	.24**	.15*	.14*	.09	.12	.13
32. Obsessive passion t5	2.21	0.94	.02	.09	.22**	.14	.11	.11	.16*	.19**	.24**	.26**	.20**	.20**	.14	.18*	.19**
33. Obsessive passion t6	2.25	0.98	-.07	.06	.11	.06	.09	.06	.09	.11	.21**	.20**	.15*	.15*	.07	.14	.19**
34. Obsessive passion t7	2.33	0.98	-.01	.07	.17*	.10	.09	.11	.10	.10	.15*	.24**	.18**	.17*	.07	.12	.17*

Note. n = 227 participants; number of observations = 1,691; M = mean; SD = standard deviation; t = measurement wave; * p < .05; ** p < .01.

Table 4 Continued

Variable	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
17. Negative affect t6	.72**																		
18. Negative affect t7	.71**	.67**																	
19. Harmonious passion t0	-.38**	-.36**	-.35**																
20. Harmonious passion t1	-.37**	-.31**	-.37**	.63**															
21. Harmonious passion t2	-.47**	-.41**	-.36**	.60**	.76**														
22. Harmonious passion t3	-.42**	-.34**	-.27**	.54**	.62**	.70**													
23. Harmonious passion t4	-.46**	-.48**	-.40**	.51**	.59**	.68**	.65**												
24. Harmonious passion t5	-.50**	-.41**	-.36**	.44**	.49**	.59**	.55**	.72**											
25. Harmonious passion t6	-.49**	-.53**	-.43**	.43**	.50**	.57**	.52**	.63**	.67**										
26. Harmonious passion t7	-.46**	-.37**	-.47**	.47**	.60**	.62**	.55**	.63**	.71**	.71**									
27. Obsessive passion t0	.14	.24**	.12	-.23**	-.20**	-.22**	-.17*	-.12	-.14*	-.20**	-.11								
28. Obsessive passion t1	.18*	.25**	.08	-.23**	-.27**	-.25**	-.21**	-.23**	-.18*	-.20**	-.14	.72**							
29. Obsessive passion t2	.18*	.25**	.08	-.24**	-.20**	-.21**	-.23**	-.22**	-.18*	-.24**	-.13	.62**	.72**						
30. Obsessive passion t3	.15*	.21**	.12	-.25**	-.24**	-.19**	-.16*	-.18*	-.14*	-.22**	-.13	.59**	.66**	.77**					
31. Obsessive passion t4	.11	.17*	.07	-.21**	-.18**	-.16*	-.12	-.18*	-.21**	-.21**	-.10	.61**	.62**	.73**	.77**				
32. Obsessive passion t5	.18**	.23**	.16*	-.16*	-.13	-.11	-.14	-.11	-.19**	-.20**	-.06	.58**	.62**	.69**	.71**	.81**			
33. Obsessive passion t6	.17*	.23**	.17*	-.17*	-.12	-.05	-.07	-.09	-.19**	-.23**	-.08	.50**	.55**	.62**	.66**	.73**	.75**		
34. Obsessive passion t7	.17*	.22**	.10	-.19**	-.11	-.08	-.12	-.15*	-.18*	-.21**	-.09	.55**	.56**	.63**	.67**	.76**	.77**	.77**	

Note. n = 227 participants; number of observations = 1,691; M = mean; SD = standard deviation; t = measurement wave; * p < .05; ** p < .01.

Table 5. Models testing the affect-regulation function of harmonious and obsessive passion

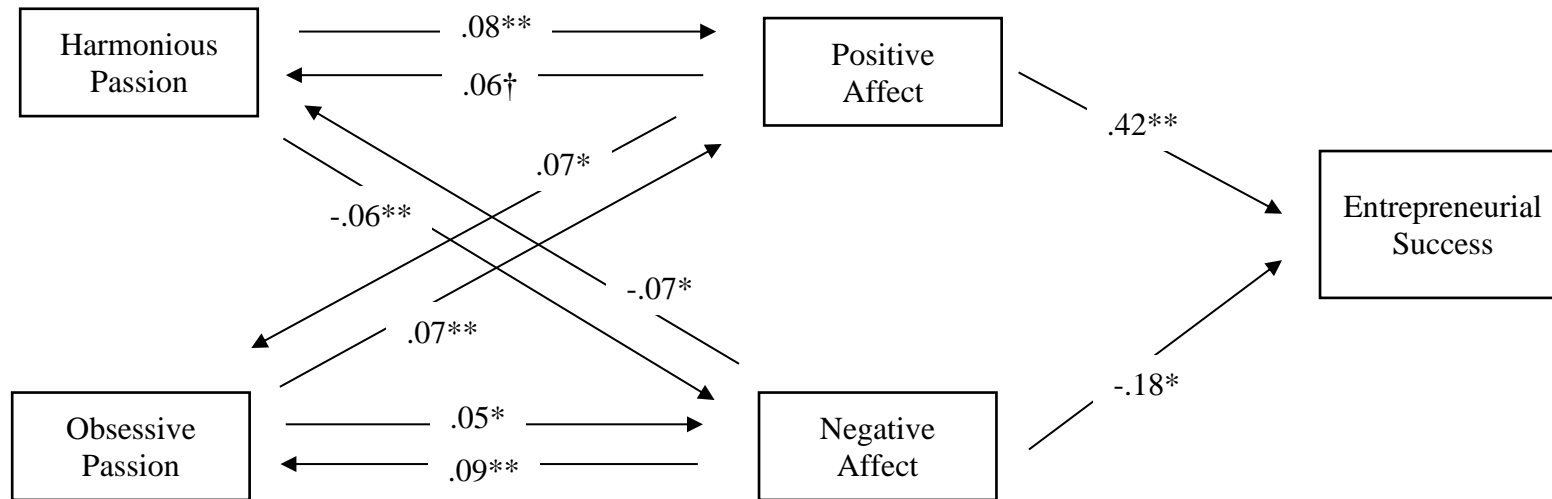
	Model 1			Model 2			Model 3			Model 4		
	Positive affect (t+1)			Negative affect (t+1)			Harmonious passion (t+1)			Obsessive passion (t+1)		
	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>
Time index	0.01	(0.01)	0.149	-0.02	(0.01)	0.005	-0.01	(0.01)	0.483	-0.01	(0.01)	0.082
Gender	0.01	(0.06)	0.850	0.04	(0.06)	0.546	-0.10	(0.07)	0.187	-0.14	(0.07)	0.050
Age	-0.00	(0.00)	0.943	-0.01	(0.00)	0.004	-0.00	(0.00)	0.934	-0.01	(0.00)	0.004
Company age	0.01	(0.01)	0.346	0.00	(0.01)	0.594	0.00	(0.01)	0.818	-0.00	(0.01)	0.651
Negative affect (t)	-0.01	(0.03)	0.712	0.28	(0.03)	0.001	-0.07	(0.03)	0.034	0.09	(0.03)	0.002
Positive affect (t)	0.25	(0.03)	0.001	-0.06	(0.03)	0.047	0.06	(0.04)	0.079	0.07	(0.03)	0.023
Harmonious passion (t)	0.08	(0.02)	0.001	-0.06	(0.02)	0.009	0.31	(0.03)	0.001	0.00	(0.02)	0.887
Obsessive passion (t)	0.07	(0.02)	0.001	0.05	(0.02)	0.043	-0.09	(0.03)	0.001	0.37	(0.02)	0.001
Marginal R ² / conditional R ²	0.134 / 0.419			0.195 / 0.525			0.199 / 0.483			0.280 / 0.589		
log-Likelihood	-1,226.469			-1,257.514			-1,541.712			-1,368.519		

Note. SE = standard errors reported in parentheses; gender: 1 = female, 0 = male; b = unstandardized beta coefficients; n = 227 participants; number of observations n = 1,490.

Table 6. Models testing the affect-regulation function of harmonious and obsessive passion on entrepreneurial success

	Model 1			Model 2		
	Entrepreneurial success (t7)			Entrepreneurial success (t7)		
	b	SE	<i>p</i>	b	SE	<i>p</i>
Gender	0.11	(0.10)	0.282	0.08	(0.10)	0.395
Age	0.00	(0.01)	0.659	-0.00	(0.01)	0.805
Company age	0.01	(0.01)	0.697	0.01	(0.01)	0.679
Entrepreneurial success (t0)	0.56	(0.06)	0.001	0.46	(0.06)	0.001
Harmonious passion	0.15	(0.07)	0.027	-0.06	(0.08)	0.485
Obsessive passion	0.16	(0.07)	0.019	0.07	(0.07)	0.328
Negative affect				-0.18	(0.09)	0.044
Positive affect				0.42	(0.12)	0.001
R^2 / R^2 adjusted	0.386 / 0.367			0.446 / 0.424		

Note. SE = standard errors; gender: 1 = female, 0 = male; b = unstandardized beta coefficients; n = 227 participants.



Mediation effects:

H5a: Harmonious passion → Positive affect → Entrepreneurial success (b = 0.11, CI [0.041, 0.183], p = .000)

H5b: Harmonious passion → Negative affect → Entrepreneurial success (b = 0.06, CI [0.002, 0.124], p = .042)

H6a: Obsessive passion → Positive affect → Entrepreneurial success (b = 0.11, CI [0.046, 0.188], p = .000)

H6b: Obsessive passion → Negative affect → Entrepreneurial success (b = -0.03, CI [-0.066, 0.000], p = .053)

Note. † p < .10, * p < .05 **, and p < .01.

Figure 3. Empirical results of how harmonious and obsessive passion regulate affect

In Hypotheses 1(a/b) and 2(a/b), we argued that passion can regulate (i.e., enhance or reduce) affect. Specifically, Hypothesis 1a posits that harmonious passion regulates affect in a manner that increases positive affect. In Table 5, Model 1 shows that harmonious passion predicts subsequent positive affect ($b = 0.08$, $SE = 0.02$, $p = .001$). This positive significant effect supports Hypothesis 1a. Hypothesis 1b stated that harmonious passion regulates affect in a manner that decreases negative affect. In Table 5, Model 2 shows that harmonious passion is negatively associated with subsequent negative affect ($b = -0.06$, $SE = 0.02$, $p = .009$). This significant negative effect supports Hypothesis 1b. Furthermore, in Hypothesis 2a, we argued that obsessive passion regulates affect in a manner that increases positive affect. In Table 5, Model 1 shows that obsessive passion enhances positive affect ($b = 0.07$, $SE = 0.02$, $p = .001$), supporting Hypothesis 2a. Hypothesis 2b states that obsessive passion regulates affect in a manner that increases subsequent negative affect. In Table 5, Model 2 shows that obsessive passion fosters subsequent negative affect ($b = 0.05$, $SE = 0.02$, $p = .043$), supporting Hypothesis 2b.

In Hypotheses 3(a/b) and 4(a/b), we posit the reverse effects— affect builds or consumes passion. Specifically, Hypothesis 3a argues that positive affect enhances harmonious passion. In Table 5, Model 3 shows a marginally significant effect of positive affect on subsequent harmonious passion ($b = 0.06$, $SE = 0.04$, $p = .079$), which marginally supports Hypothesis 3a. Hypothesis 3b stated that positive affect is positively associated with obsessive passion. In Table 5, Model 4 shows that positive affect is significantly positively associated with subsequent obsessive passion ($b = 0.07$, $SE = 0.03$, $p = .023$), supporting Hypothesis 3b.

Furthermore, Hypothesis 4a posits that negative affect is negatively associated with harmonious passion. In Table 5, Model 3 shows that negative affect is significantly negatively associated with subsequent harmonious passion ($b = -0.07$, $SE = 0.03$, $p = .034$), which

supports Hypothesis 4a. Hypothesis 4b states that negative affect is positively associated with obsessive passion. In Table 5, Model 4 shows that negative affect significantly positively predicts subsequent obsessive passion ($b = 0.09$, $SE = 0.03$, $p = .002$), supporting Hypothesis 4b.

Hypothesis 5a posits that positive affect mediates the relationship between harmonious passion and perceived entrepreneurial success and that harmonious passion enhances positive affect, which is positively related to perceived entrepreneurial success. Models 1 and 2 in Table 6 show the regression results. The indirect mediation effects in Hypotheses 5a, 5b, 6a, and 6b were tested using the Monte Carlo method based on 20,000 replications (Bauer et al., 2006; Selig & Preacher, 2008). The mediation test demonstrated that harmonious passion significantly indirectly affects perceived entrepreneurial success through positive affect ($b = 0.11$, $CI [0.041, 0.183]$, $p = .000$), supporting Hypothesis 5a.

Hypothesis 5b predicts that the relationship between harmonious passion and perceived entrepreneurial success is mediated by negative affect. Harmonious passion reduces negative affect, which is negatively related to perceived entrepreneurial success. The mediation test showed that harmonious passion significantly indirectly affects perceived entrepreneurial success through negative affect ($b = 0.06$, $CI [0.002, 0.124]$, $p = .042$), supporting Hypothesis 5b.

Hypothesis 6a posits that positive affect mediates the relationship between obsessive passion and perceived entrepreneurial success. Obsessive passion enhances positive affect, which is positively related to perceived entrepreneurial success. The mediation test showed that obsessive passion significantly indirectly affects perceived entrepreneurial success through positive affect ($b = 0.11$, $CI [0.046, 0.188]$, $p = .000$), supporting Hypothesis 6a.

Hypothesis 6b states, that negative affect mediates the relationship between obsessive passion and perceived entrepreneurial success and that obsessive passion enhances negative

affect, which is negatively related to perceived entrepreneurial success. The mediation test demonstrated that obsessive passion has a marginally significant indirect effect on perceived entrepreneurial success through negative affect ($b = -0.03$, CI $[-0.066, 0.000]$, $p = .053$), thus marginally supporting Hypothesis 6b.

2.5 Discussion and Implications

We adopt a new perspective on passion by theoretically conceptualizing it as a psychological resource in entrepreneurship, which benefits entrepreneurs through its affect-regulatory function. Passion is a valuable psychological reservoir because it helps entrepreneurs handling their emotional rollercoaster and promotes a positive, success-oriented attitude. The findings provide broad support for our hypothesized model. Specifically, we show that harmonious passion regulates affect in such a way that it fosters positive affect and diminishes negative affect. Moreover, obsessive passion upregulates both positive and negative affect, entering a different, although not entirely negative, relationship with affect.

Furthermore, we show that affect has passion-building and passion-consuming effects, suggesting a reciprocal relationship between passion and affect. Positive affect builds obsessive passion and marginally builds harmonious passion. Negative affect consumes harmonious passion while building obsessive passion. Over time, harmonious passion can lead entrepreneurs to perceive themselves as more successful by downregulating negative affect and upregulating positive affect. Obsessive passion has an ambivalent role in establishing a success-oriented attitude. Although, it upregulates positive affect, which is beneficial for perceived entrepreneurial success, it also enhances negative affect, which is negatively related to perceived entrepreneurial success.

These findings contribute to the literature in the following ways. First, our study contributes to the broader passion literature by highlighting that obsessive passion does not have only detrimental effects but may enhance entrepreneurial success by fostering positive

affect. This finding provides a more nuanced view of obsessive passion, which previous studies have primarily presented as dysfunctional and harmful (Curran et al., 2015; De Mol et al., 2018; Pollack et al., 2020; Tolentino et al., 2022; Vallerand et al., 2003). The psychological resource perspective presented in this study implies that harmonious and obsessive passion are not direct antagonists, but instead *both* provide unique value for the resource holder. Although, previous studies have presented empirical evidence of a positive relationship between obsessive passion and positive affect, researchers have assigned such results to obsessive passion's "conflicting nature" rather than elaborating on this point further (Pollack et al., 2020, p. 8). By injecting a psychological resource logic to this debate, we provide a conceptual foundation and a respective empirical test for understanding why obsessive passion can play a positive role, corroborating recent similar claims (Fisher et al., 2018; Fu et al., 2022; Laurent et al., 2023; Li et al., 2020). Conceptualizing obsessive passion as a multifinal resource helps to explain the ambiguous results for different outcomes such as well-being, health, and performance (Curran et al., 2015; Ho & Pollack, 2014; Pollack et al., 2020; Vallerand, 2015).

Second, conceptualizing passion as a psychological resource allows it to be modeled as an outcome of affective processes, accounting for the reciprocal relationship between passion and affect. We showcase how, as a resource, passion is both consumed and built by affective experiences, thereby contributing to the literature on the antecedents of passion (Collewaert et al., 2016; Dalborg & Wincent, 2015; Gielnik et al., 2017; Lex et al., 2019, 2022; Liu et al., 2011). Across different conceptualizations of passion, its antecedents have been understudied compared to its outcomes (Astakhova et al., 2022; Curran et al., 2015; Li et al., 2017; Newman et al., 2021), and previous research has mainly focused on how passion is initially developed. Furthermore, previous studies have primarily focused on stable factors representing personal antecedents, such as personality traits (Dalpé et al., 2019; Liu et al.,

2011; Newman et al., 2021; Vallerand et al., 2014, 2019), or contextual antecedents such as environmental factors (Carpentier & Mageau, 2019; Mageau et al., 2009; Newman et al., 2021; Vallerand et al., 2006). By understanding passion as a psychological resource, we establish that affective experiences can act as antecedents of passion rather than only as outcomes. This adds to our current understanding of passion's ongoing development after its initial emergence (Astakhova et al., 2022; Bredehorst et al., 2023; Vallerand, 2010, 2015). Viewing passion as a psychological resource helps clarify previous ambiguities regarding the passion construct. Although some prior work suggests that passion is durable and stable, other studies have detected meaningful short-term development (e.g., Bredehorst et al., 2023). These different conceptualizations suggest that although psychological resources can be durable, they are simultaneously modifiable, as they can be both dynamically consumed and built up (Halbesleben et al., 2014; Hobfoll et al., 2018). Therefore, viewing passion as a psychological resource may inform research on passion. This perspective also helps to explain why meaningful short-term fluctuations occur in some components of passion (Astakhova et al., 2022; Collewaert et al., 2016; Gielnik et al., 2015, 2017; Lex et al., 2022). In addition, we have advanced the theoretical understanding of the antecedent–passion relationship by emphasizing the value of reciprocal building processes together with affect (Fredrickson, 1998, 2001, 2013; Kok et al., 2013).

Third, by conceptualizing passion as a resource (De Clercq & Belausteguigoitia, 2019; Stevenson et al., 2023), and thus, shifting the focus toward passion's affect-regulation function, we introduce a new perspective on the positive function of passion. To date, researchers have primarily elaborated on the motivational power and positive impact of passion during the entrepreneurial journey (Cardon et al., 2009; Drnovsek et al., 2016; Newman et al., 2021; Zhao & Liu, 2023) by shaping goal-related cognitions (Cardon & Kirk, 2013; Cardon et al., 2009; Mueller et al., 2017; Murnieks et al., 2014). When we

conceptualize obsessive and harmonious passion as psychological resources, both are *tools of affect regulation*, but with very different features (Stroe et al., 2020) that influence their effects on perceived success. Thus, we provide a better understanding of the underlying differences between harmonious and obsessive passion in the context of entrepreneurial success. While both types of passion work in parallel on positive affect, only harmonious passion shields against negative affect. In contrast, obsessive passion can promote negative affect.

This study's findings have several practical implications. Our study shows how both harmonious and obsessive passion can be helpful to entrepreneurs. By supporting affect regulation, harmonious and obsessive passion can help entrepreneurs deal with their emotions. Furthermore, our findings can increase awareness among entrepreneurs and their supporters, educators, and investors of obsessive passion's diverse effects. This can better equip practitioners to stimulate or mitigate different forms of passion, having demonstrated that passion can be modified by affective experiences.

2.6 Limitations and Avenues for Future Research

As with all research, our study has some limitations. Our dynamic view on passion builds on its ongoing development, as previously articulated by Vallerand (2010, 2015) and answers recent calls for such short-term development research (Astakhova et al., 2022; Bredehorst et al., 2023; Collewaert et al., 2016; Gielnik et al., 2015; Lex et al., 2022).

However, concerns may arise regarding the ability of this study's design to capture passion and affective shifts. Given the high dynamics of the entrepreneurial environment, we argue that the chosen timeframe is adequate to capture variations in this study's main constructs. Previous research suggests that shifts in affect (Lyubomirsky et al., 2005; Parkinson et al., 1995; Updegraff et al., 2004; Watson et al., 1992) and the development of passion can be observed over weeks (Bredehorst et al., 2023; Gielnik et al., 2015, 2017; Lex

et al., 2022). In addition, a significant strength of this study's weekly measurement and short overall time frame is that this method minimizes retrospective biases (Beal & Weiss, 2003) and offers real-time insights.

Moreover, the observed variables and introspective nature of our research required the use of self-reported measurements. Collecting all measures as self-reports may hold the risk of common method variance as a threat to validity (Podsakoff et al., 2003). This was minimized in the current study by temporally separating predictor and predicted variables and using lagged versions of the variables in the analyses (Antonakis et al., 2010; Spector, 2006). With a substantial number of observations ($n = 1,691$), our results gain credibility compared to those obtained using similar designs (Gabriel et al., 2019). However, we call for additional research to replicate this study's setting and potentially use different empirical approaches and measurement patterns.

Future research can expand on our study's findings in several significant ways. We recommend delving deeper into the function of obsessive passion within the entrepreneurship context. Although attitudes toward obsessive passion have primarily been negative (Curran et al., 2015; Ho & Pollack, 2014; Pollack et al., 2020; Vallerand, 2015), our study identified its positive aspects in entrepreneurship. Potential thresholds and boundary conditions for these benefits warrant exploration. We recommend using longer timeframes to investigate whether the positive effects are sustained long-term or if obsessive passion phases eventually become harmful. This study's findings align with previous work highlighting passion is moldable (e.g., Astakhova et al., 2022; Bredehorst et al., 2023; Lex et al., 2022). Future studies could explore how passion can be purposefully fostered organizationally and in entrepreneurship education and test the model in diverse cultural and economic settings, especially in understudied developing economies (Bruton, 2010; Reynolds, 2012).

2.7 Conclusion

We introduce a new perspective that conceptualizes passion as a psychological resource that benefits entrepreneurs by supporting their affect-regulation processes. The findings highlight that both harmonious and obsessive passion are potentially valuable reservoirs that upregulate positive affect fostering success-oriented attitudes in entrepreneurs. Furthermore, harmonious passion, rather than obsessive passion, provides a shielding effect against negative affect, which aligns entrepreneurs toward success.

CHAPTER III: HANDLING THE BEAST: HOW ENTREPRENEURS DEAL WITH THEIR OBSESSIVE PASSION

Abstract

Recent research suggests that individuals are not merely “passive victims” (or beneficiaries) of their passion but can actively handle it. Passion is an important antecedent of entrepreneurial success and a powerful motivational force but has also shown dysfunctional and harmful consequences when taking on an obsessive form. This makes investigating how entrepreneurs can manage their obsessive passion of high interest. We probe this issue using interview data on 37 entrepreneurs and find several pathways for handling obsessive passion, which differ in terms of consciousness and active control entrepreneurs take over their obsessive passion. This has implications for how obsessively passionate individuals are regarded, moving the perception of them as passive holders of an obsessive passion trait to active agents shaping their own obsessive passion to minimize the harmful consequences and maximize the positive outcomes.

Keywords: Dualistic model of passion, obsessive passion, self-regulation, entrepreneurial cognition

3.1 Introduction

“It's like a beast that will never stop eating. I could work on it 24/7. So, you have to decide to stop feeding it, you know.” (I33: 34)

Passion is “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757) and can take an obsessive form, characterized by an uncontrolled and addiction-like pursuit of an activity (Dalla Rosa & Vianello, 2020; Stroe, Wincent, et al., 2018; Vallerand et al., 2019). Individuals are very likely to develop obsessive passion in contexts characterized by high competition, pressure, and heavy workloads, such as during the early stages of entrepreneurship (Stroe, Wincent, et al., 2018; Thorgren & Wincent, 2015). Thus, obsessive passion significantly affects entrepreneurs and their businesses (De Mol et al., 2018; Fu et al., 2022; Stroe et al., 2020; Stroe, Wincent, et al., 2018).

Although earlier work treated passion as a generally static construct (Curran et al., 2015; Vallerand, 2010, 2015), recent discourse has shifted toward a more dynamic view that focuses on passion-regulation mechanisms (Frese & Gielnik, 2023; Gielnik et al., 2015, 2017; Lex et al., 2019, 2022; Newman et al., 2021). This emergent perspective suggests that individuals are not simply passive victims or beneficiaries of their passion but active agents who can regulate it. This is especially relevant for obsessive passion, which has various potentially harmful consequences such as increased risk of burnout, depression, or aggressive behavior (De Mol et al., 2018; Ho & Pollack, 2014; Houliort et al., 2013; Philippe et al., 2009; Pollack et al., 2020; Trépanier et al., 2014; Vallerand et al., 2010, 2019).

Although researchers have begun to acknowledge that passion fluctuates (Collewaert et al., 2016; Gielnik et al., 2017; Murnieks, Cardon, et al., 2020; Murnieks et al., 2014; Thorgren & Wincent, 2015; Vallerand, 2010, 2015), relatively little is known regarding the self-regulating forces that drive obsessive passion and shape its relevant consequences (Curran et al., 2015; De Mol et al., 2018; Pollack et al., 2020). Thus, this study builds on the

idea that entrepreneurs craft rather than find their passion (Newman et al., 2021). This study aims to find exactly how entrepreneurs handle their obsessive passion and thus make use of their passion in a more directed manner. Does this process unfold consciously or unconsciously? Are there ways to actively navigate different degrees or levels of obsessive passion (Newman et al., 2021), so that this internal force can be managed? We probe these issues using qualitative data on 37 entrepreneurs, exploring their experience with and handling strategies for obsessive passion to answer the questions of *why* and *how* entrepreneurs manage their obsessive passion.

With this research, we seek to contribute to the literature on passion in a work context and beyond. First, we contribute to research on passion in entrepreneurship by providing a more nuanced understanding of obsessive passion's role. The prevalent view on obsessive passion has been to regard obsessive passion as having detrimental and harmful consequences such as the increased likelihood of burnout, conflict or, aggressive behavior (De Mol et al., 2018; Ho & Pollack, 2014; Philippe et al., 2009; Pollack et al., 2020; Stroe et al., 2020; Vallerand et al., 2014). However, recent research has noted its potentially functional role in an entrepreneurial context (Fu et al., 2022; Murnieks et al., 2016; Thorgren & Wincent, 2015).

We add to this avenue of investigation by acknowledging that while obsessive passion has a dysfunctional side it can also be a valuable tool that entrepreneurs intentionally employ to support their endeavors. As such, we contribute to a more balanced understanding of obsessive passion by showing *why* and *how* obsessive passion results in either more beneficial or more harmful consequences. We do so by explicating the prerequisite mechanisms for obsessive passion's harmful side to be minimized and its functional side to be maximized.

Second, we contribute to the current literature by presenting a perspective shift on the obsessive passion construct (Curran et al., 2015; Pollack et al., 2020; Vallerand, 2010; Vallerand et al., 2014, 2019). In line with Vallerand et al. (2003), we argue that obsessive passion is characterized by a lack of control over engagement in one's passionate activity and

we add that an indirect control and influence is possible through self-regulatory strategies. Thus, we shed light on the functioning of these strategies. Accordingly, we seek to add to the research investigating self-regulatory processes as antecedents of obsessive passion such as perceptions of competence and assessment (Bélanger et al., 2015; Thorgren & Wincent, 2013). We move beyond the passive view of obsessively passionate individuals that traditionally does not consider any design possibilities to influence the positive or negative consequences of obsessive passion (Curran et al., 2015; Pollack et al., 2020; Vallerand, 2015). Our research acknowledges that passionate individuals are active and powerful agents who shape their own obsessive passion. By introducing the passionate individual as an active agent in this regard, we lay the foundation for guiding passionate individuals to develop and manage their passion optimally.

3.2 Theoretical Background

Obsessive Passion and its Consequences

The dualistic model of passion (Vallerand et al., 2003) distinguishes harmonious passion, in which entrepreneurs integrate their entrepreneurial activity harmoniously with other activities, and obsessive passion, in which the entrepreneurial activity is the sole focus. Entrepreneurs are likely to experience role overload and identity-related stressors, which fuel their excessive engagement in the entrepreneurial activity i.e., their obsessive passion (Stroe, Wincent, et al., 2018). As such, under extreme working conditions such as in the entrepreneurial context, obsessive passion is particularly likely to develop and remain prevalent (Schindehutte et al., 2006). According to Vallerand et al. (2003), an obsessive passion is characterized by pressured and constrained activity engagement (Vallerand et al., 2003). Individuals are driven by an internal compulsion to engage in the activity about which they are passionate; thus, other goals and activities are suppressed (Bélanger et al., 2013b; Vallerand et al., 2003).

Prior research has mostly focused on the outcomes of passion and the mechanisms through which its effects are exerted (Newman et al., 2021; Pollack et al., 2020; Zhao & Liu, 2023). Accordingly, obsessive passion has shown functional and dysfunctional outcomes in a general working context, and in particular in the entrepreneurial context (De Mol et al., 2018; Fu et al., 2022; Ho & Pollack, 2014; Murnieks et al., 2016; Stroe et al., 2020; Stroe, Wincent, et al., 2018). For instance, obsessive passion influences entrepreneur's decision-making by making it more likely they will use causal logic (Stroe, Parida, et al., 2018).

Obsessively passionate entrepreneurs require a high degree of external confirmation and are less independent from their activity than harmoniously passionate entrepreneurs, which might negatively affect their venture performance (Ho & Pollack, 2014). Obsessive passionate individuals have difficulties psychologically disengaging from their passionate activity; thus, they constantly ruminate on related issues (Carpentier et al., 2012; Donahue et al., 2012; Pollack et al., 2020). This rigid and uncontrollable activity engagement has resulted in an association between obsessive passion and an increased likelihood of experiencing burnout (De Mol et al., 2018; Fernet et al., 2014; Lalande et al., 2017; Pollack et al., 2020; Trépanier et al., 2014; Vallerand, 2010). Obsessively passionate individuals feel compelled to pursue their passion; therefore, they often work long hours and may experience emotional exhaustion, psychological distress, and interpersonal conflicts (Bélanger et al., 2015; Lavigne et al., 2014; Pollack et al., 2020). Emotional exhaustion and conflicts negatively affect entrepreneurial endeavors because they result in exit intentions (Sardeshmukh et al., 2021).

However, prior research also highlights the powerful advantages of obsessive passion. For instance, angel investors value obsessive passion in entrepreneurs, because it signifies elevated tenacity and motivation. Consequently, they are more likely to invest in the ventures of obsessively passionate entrepreneurs (Murnieks et al., 2016). Obsessive passion increases the likelihood of long-term commitment to entrepreneurial engagement (i.e., habitual entrepreneurship) (Thorgren & Wincent, 2015). Furthermore, obsessive passion has shown a

stronger positive relationship with concentration and thoughts of winning than that of harmonious passion (Mageau et al., 2005) and is associated with an extreme dedication comparable to an addiction to keep working on the entrepreneurial activity (Dalla Rosa & Vianello, 2020; Fu et al., 2022), which has shown to be beneficial for attracting potential co-founders (Fu et al., 2022). In summary, although prior research has noted numerous harmful consequences of obsessive passion, growing evidence suggests a more balanced view, emphasizing its positive aspects as well.

Viewing Individuals as Active Agents of their own Obsessive Passion

Prior literature has mainly considered individuals to exert their passion on an activity according to a mostly fixed inclination, which is either harmonious or obsessive. Thus, obsessively passionate individuals passively experience potential negative consequences or are lucky and benefit from positive outcomes. The antecedents investigated have mostly been external circumstances that foster harmonious or obsessive passion including autonomy-enhancing environments (Bonneville-Roussy et al., 2013; Carpentier & Mageau, 2019; Fernet et al., 2014; Mageau et al., 2009), unsatisfied needs (Lalande et al., 2017), or external stressors such as role overload (Stroe, Wincent, et al., 2018). Furthermore, personal predispositions such as trait characteristics, have been shown to exert an influence (Amiot et al., 2006; Dalpé et al., 2019; Vallerand et al., 2014, 2019; Verner-Filion & Vallerand, 2016). All seem to limit individuals' power over their passions in terms of how passionate individuals want the pursuit of their passionate activity to look. Indeed, we acknowledge that obsessive passion is characterized by a lack of personal control over the direct engagement in the activity (Vallerand, 2010, 2015; Vallerand et al., 2003); however, we posit that even when lacking control over their passion, individuals can access other levers to indirectly influence their passion composition toward their entrepreneurial activity.

The perspective in this study of active and powerful humans, who purposefully shape their circumstances and behavior is based on self-regulatory theories (Bandura, 1978b, 1989;

Carver & Scheier, 2000; Locke & Latham, 2002; Lord et al., 2010). Bélanger et al. (2015) emphasize that self-regulatory modes such as locomotion and assessment predict passion. Further cognitive perceptions of oneself and others drive passion (Thorgren & Wincent, 2013). This previous research illustrates that self-regulatory processes are at work that influence an individual's passion. In line with Bandura (1989, p. 1175), we regard humans "neither as autonomous agents nor simply mechanical conveyers of animating environmental influences." A self-regulatory perspective considers individuals to be in charge of their destiny and actively molding and determining their style of working (Bandura, 1989; Locke & Latham, 2002; Lord et al., 2010). Thus, self-regulation theories converge on the notion that humans purposefully act and adapt their behavior to move toward their goals (Bandura, 1989, 1991; Carver & Scheier, 2000). For example, individuals may influence their lives to their advantage through purposeful selection, in which they may select specific environments or create new ones that facilitate their goals (Bandura, 1989).

Furthermore, self-regulatory theories agree that cognitive processes (Bandura, 1989; Carver & Scheier, 2000; Lord et al., 2010) such as goal setting, and self-evaluation of one's status and capabilities are a prerequisite for human behavior. On this basis, humans can shape their destinies by taking action toward achieving their goals (Carver & Scheier, 1990, 2000; Diefendorff et al., 1998). Individuals set goals and constantly judge their progress toward them. Sensed inputs are compared to internal standards (Lord et al., 2010) and result in one of two modes of regulation: enhancement or modification (diminishing). If the result of this cognitive evaluation shows an increasing discrepancy, individuals will modify their behavior accordingly with self-corrective actions to counteract the current trajectory (Carver & Scheier, 2000; Lord et al., 2010). Likewise, if this process results in a positive evaluation, the output function (i.e., the current behavior) is enhanced (Carver & Scheier, 2000).

In line with this reasoning and given both the positive and negative outcomes associated with obsessive passion, entrepreneurs will likely adapt their behavior to achieve

their goals and act to shape their circumstances favorably. The methods they use to do so and the optimal balance are expected to differ between individuals because their goals and their situations will vary (Locke & Latham, 2002). Individuals might take different steps to adapt the behavior that shapes their passion to match their own goals and priorities: For instance, individuals who want to integrate their family into their lives might decrease their obsessive passion toward their work, because obsessive passion has shown to increase conflict with close family members (Philippe et al., 2010; Vallerand et al., 2003, 2014). Obsessive passion increases perceptions of work overload (Lavigne et al., 2014), which individuals might want to decrease. However, nevertheless, they might want to occasionally utilize the benefits of an obsessively passionate engagement in entrepreneurial activity, such as to court investors or potential co-founders (Fu et al., 2022; Murnieks et al., 2016). Individual my wish to downregulate the anger and aggressive behavior that can stem from obsessive passion (Philippe et al., 2009) while also making occasional use of its approach tendency as a motivational force (Harmon-Jones & Allen, 1998). Furthermore, entrepreneurs may have set a goal to scale their venture quickly (Gundry & Welsch, 2001) and have no other important responsibilities (Fisher et al., 2018; Houfort et al., 2013; Stroe, Wincent, et al., 2018; Vallerand et al., 2019), and will thus choose to focus on their venture without constraints (Vallerand et al., 2003). Obsessive passion helps in this regard as it has been shown to focus thoughts and help suppress alternative goals (Bélanger et al., 2013b) and translates a work-related calling into workaholism (Dalla Rosa & Vianello, 2020).

Given the lack of theoretical foundation for how entrepreneurs handle their passion with specific strategies and how they indirectly take control over their obsessive passion, we consider a qualitative inductive approach to be suitable to answer the following research questions:

How do entrepreneurs handle their obsessive passion for their entrepreneurial activity?

How do entrepreneurs shape the composition (i.e., relative predominance) of obsessive passion toward their optimal level?

3.3 Methodology

Research Design

An earlier quantitative repeated measurements study on passion in an entrepreneurial working context revealed that entrepreneurs wished to further explain and reflect on their passion more substantively than is possible through an added textbox on a survey. Thus, the need to approach passion with a qualitative toolbox emerged, and the participants from that previous project were approached for the present study. Our experience echoes recent calls to use qualitative approaches for studying the complex and multifaceted entrepreneurial context (Suddaby et al., 2015). Given the undertheorized nature of active passion handling, we used an inductive theory-building approach (Charmaz, 2014; Glaser & Strauss, 1967) to conduct a qualitative study including 37 semi-structured interviews with entrepreneurs.

A further reason a qualitative research design was employed is that we were interested in the entrepreneurs' subjective perceptions of their passions and their understanding of they handling them (Suddaby, 2006). The purpose of this method was to capture and model our interviewees' meanings and understandings (Gioia et al., 2013). Accordingly, a qualitative approach offers the possibility to obtain a fine-grained perspective on the complexities and dynamics of strategies entrepreneurs use to handle their passions (Gioia et al., 2013; Glaser & Strauss, 1967; Nordqvist et al., 2009). Given the limited theory on the active role passionate individuals take in shaping their passion, this study's research design followed the principles of emergence, where the relevance of concepts and categories emerges as data are generated and conceptualized (Glaser & Strauss, 1967). Thus, objectives and research questions evolved

during data collection, allowing for an open process to avoid forcing existing theoretical constructs onto the interviewees and data (Urquhart, 2013). We started with entrepreneurs' descriptions of their thoughts and actions and on this basis inductively retrieved the cognitive processes and specific handling strategies. Using this approach, I was able to develop a theoretical model to understand the cognitive prerequisites and subsequent handling strategies of entrepreneurs when managing their passions. Drawing on an inductive methodology allowed us to construct a theoretical framework of passion handling strategies.

Data Collection

Sampling Procedure

We purposefully chose our sample from the entrepreneurial context to investigate obsessive passion (Corbin & Strauss, 2015). Passion is a major driving force of entrepreneurs (Murnieks et al., 2014). Researchers emphasize the importance of obsessive passion in the entrepreneurial context (Murnieks, Cardon, et al., 2020; Murnieks et al., 2016; Stroe et al., 2020; Stroe, Wincent, et al., 2018), making it a fitting context for our research question. We focus on entrepreneurs from the very early stages (less than 1 year) because they provide fruitful grounds for obsessive passion to flourish (Stroe, Wincent, et al., 2018). Second, we want to investigate passion with proximity to entering entrepreneurship, which helps us combat memory decay and retrospective bias in entrepreneurs' reflections thereof (Davidsson & Gordon, 2012). Additionally, investigating earlier entrepreneurial stages reduces potential survivorship bias (Davidsson & Gordon, 2012). Additionally, we include entrepreneurs up to later firm stages of up to 10 years (e.g., Forbes, 2005; Jin et al., 2017) to ensure that entrepreneurs have developed strategies to handle their obsessive passion. Having a bandwidth of different ages within the early firm stages enriches our understanding of different handling strategies with an obsessive passion to the fullest.

From an earlier research endeavor about entrepreneurial passion, we had been in close contact with over 200 entrepreneurs. We approached these interviewees with an invitation via

email and LinkedIn message. We asked them if they would be available to talk with us about their passion for their venture. 30 interviewees responded to our call. Many responded by telling us that they consider the topic of passion very important in the context of entrepreneurship and applauded us on the significance of studying obsessive passion in an entrepreneurial context. Therefore, we consider them suitable for our study purpose because they felt addressed by our calling to give insights about their obsessive passion. The seven remaining interviewees are personal contacts which we know well and considered promising for our study because we observed them passionately pursuing their entrepreneurial activities. We enriched our initial sample with these other suitable interview candidates until we reached a point of theoretical saturation i.e., there was no significant further theoretical knowledge generation concerning our guiding research questions (Charmaz, 2014). Table 7 provides a summary of key sample characteristics.

Table 7. Sample overview

ID	Age	Sex	Company age	Education	Company size	Industry	Serial entrepreneur	Date of interview	Length of interview	Sum of transcribed words
1	33	M	7	PhD	6	Fashion & Accessories	2	10/14/2021	00:29:27	5,220
2	32	M	3	University degree	2	Sports & Fitness	2	10/14/2021	00:26:29	11,118
3	30	M	1	University degree	4	Medical Technology	1	10/14/2021	00:49:22	4,937
4	31	M	4	University degree	60	Business Services	1	10/14/2021	00:27:40	5,345
5	34	F	4	University degree	3	Cleaning Services	1	10/14/2021	00:40:37	5,092
6	32	M	4	University degree	6	Alcoholic Beverages	1	10/15/2021	00:50:53	8,215
7	31	M	3	University degree	11	Food & Nutrition	2	10/15/2021	00:46:10	8,951
8	28	M	1	University degree	4	Medical Technology	1	10/15/2021	00:56:34	9,519
9	29	F	2	University degree	8	Skilled Labor Services	3	10/18/2021	01:12:27	8,110
10	28	M	1	University degree	6	Business Services	1	10/20/2021	01:00:22	7,534
11	29	M	1	University degree	6	Building Construction	1	10/21/2021	00:50:49	7,214
12	65	M	4	PhD	15	Business Services	1	10/21/2021	01:00:36	4,506
13	31	F	1	University degree	1	Business Services	2	10/21/2021	00:51:34	9,351
14	37	M	1	University degree	4	Software	5	10/21/2021	01:39:30	6,614
15	37	M	6	University degree	9	B2C E-commerce	1	10/22/2021	00:57:12	12,163
16	34	M	9	University degree	17	Pharmaceutical Products	1	10/25/2021	00:55:28	10,593
17	25	M	3	University degree	5	Education	1	10/26/2021	00:54:51	13,199
18	39	M	6	University degree	8	Business Services	2	10/26/2021	00:50:19	9,219
19	52	F	1	Apprenticeship	1	Business Services	1	10/26/2021	00:46:55	13,756
20	34	F	3	University degree	1	Business Services	1	10/28/2021	01:02:59	9,710
21	32	M	0	University degree	2	Food & Nutrition	3	10/28/2021	01:16:57	11,139
22	34	M	4	University degree	20	Marketing	1	10/28/2021	00:51:21	8,126
23	33	M	5	University degree	20	Pharmaceutical Products	1	11/02/2021	00:35:52	9,029
24	31	M	6	University degree	35	Business Services	1	11/02/2021	01:03:24	7,383
25	39	M	1	University degree	1	Business Services	2	11/02/2021	00:45:16	7,844
26	58	F	2	University degree	1	Business Services	2	11/03/2021	00:59:47	7,977
27	44	F	5	University degree	1	Sports & Recreation	1	11/04/2021	01:04:42	10,367
28	33	F	2	University degree	1	Marketing	1	11/04/2021	01:06:34	11,377
29	43	F	1	University degree	6	Business Services	1	11/09/2021	01:14:36	7,771
30	36	M	5	University degree	30	Environmental Technology	1	11/15/2021	00:42:10	7,003
31	50	M	3	University degree	2	Business Services	2	11/15/2021	00:48:30	8,208
32	56	M	6	University degree	140	Medical Technology	5	11/15/2021	00:55:52	9,759
33	30	M	2	University degree	10	Aviation Technology	1	11/16/2021	01:09:14	5,489
34	25	M	1	University degree	4	Mobile Internet & Apps	1	11/18/2021	01:05:14	16,401
35	44	F	2	University degree	2	Business Services	2	11/19/2021	01:06:00	8,019
36	49	M	10	University degree	160	Food & Nutrition	4	12/01/2021	00:44:16	8,799
37	42	M	2	University degree	2	Business Services	2	12/13/2021	01:11:36	6,783

Note. M = Male; F = Female; Age in years; Length of interview: hh:mm:ss; Education = Highest educational level; Company size = Number of employees including the founder(s); Serial entrepreneur = Number of companies founded

Conducting the Interviews

The first author conducted 37 interviews between October and December 2021. The interviews took between 26 – 99 minutes. In total, the recorded interview data has a duration of about 34 hours. Most interviews were conducted in the entrepreneurs' native language (German), while a few interviews were conducted in English based on the entrepreneurs' preferences. After transcribing the recorded interview data, we had 608 pages of single-spaced transcript text, which consisted of a total of 321,840 single words.

We enriched our insights from the interviews with supplementary material. During or shortly after the interview, the interviewer took field notes about the impression of the interview and important takeaways. To get to know our interviewees better and get a more comprehensive picture of their backgrounds and individual situation, we gathered material from entrepreneurs' social media profiles, company websites, and some selected media articles. On their company websites, some for example include the history of their company with important milestones, from which we retrieve an understanding of which stadium they are currently, confirming their fit to our sample of early firm stages. Some included for example in their self-description, statements about their passion for their entrepreneurial activity on their LinkedIn profiles or their company's website, which enhanced our conviction that they are a suitable sample to study passionate entrepreneurs. This material enriched and shaped our overall understanding but was not as formally analyzed as the primary data source: the 37 semi-structured interviews.

Interview Guide

We conducted semi-structured interviews supported by an interview guide. As such, we ensured consistency among the interviews by at the same time being open and flexible to emerging themes during the interview (Corbin & Strauss, 2015). Before we started, we reaffirmed the participants' consent to record the interview. A major challenge, that rises with the close personal contact of an interview as a tool for data collection, is a potential social

desirability bias. Interviewees might want to present themselves in a more positive and favorable light (Crowne & Marlowe, 1964). We applied several strategies to minimize this risk. First, we assured our participants' confidentiality and anonymity of their data usage (Gioia et al., 2013). Second, we emphasized that there are no right or wrong answers and that they should answer as honestly as possible (Podsakoff et al., 2003). We stressed that it is about their perceptions, experiences, and judgments as entrepreneurs.

Our interview questions changed over the process of the data collection. That is, in the first interviews, we started with very broad and general questions about the entrepreneurs' perceptions of their passions. The interview guide covered the following topics: First, the personal background and entrepreneurial situation of the entrepreneur (Example question: "Could you present yourself and your professional background?") and second, the perception of the entrepreneurs' personal relationship with their entrepreneurial activity and their definition of their entrepreneurial passion (Example question: "How would you describe your relationship with your entrepreneurial activity?") and third, the different decision scenarios to find out how the engagement in the entrepreneurial activity actually looks like and is integrated into daily life (Example question: "Please recall a situation in which you had to decide between working or another activity outside work. How did you decide and why?") and fourth, the perception and handling of the entrepreneurs' harmonious and obsessive passion (Example question: "Who or what factors influence your location between being more harmonious or being more obsessive?") and fifth, demographic questions (Example question: "How old are you?").

In the initial round of interviews, we uncovered that entrepreneurs process their passion differently and subsequently apply strategies to deal with their passion. We integrated this into later versions of the guideline to explore specific characteristics of why and how entrepreneurs handle their passion, which had emerged in earlier interviews. During all

interviews, we stayed open and adjusted quickly, wherever the interviewee led us in the investigation of our guiding research question (Corbin & Strauss, 2015; Gioia et al., 2013).

Data Analysis

The data analysis process was conducted by the author team independently from each other in several iterations. Interpretation of the interviews was based on multiple rounds of reading each transcript and discussing. We constantly compared emerging themes with existing theories (Corbin & Strauss, 2015; Gioia et al., 2013). After each step (i.e., a few coded interviews), we met to discuss the results and resolve inconsistencies until a consensus was reached. We enhanced the trustworthiness of our results through critical and challenging reflections and discussions between the authors. During this iterative procedure, we developed our research model and the different passion-handling types emerged step by step. As such, we constantly refined our concept definitions and interpretations.

We used the computer software MAXQDA for our iterative data analysis process. We constantly compared new patterns from the data with the emerging theoretical framework shaping our nascent understanding of how entrepreneurs describe their cognitive and behavioral handling of their obsessive passion. In line with recent qualitative research (Castellanza, 2022; Drencheva et al., 2021; O’Neil et al., 2022; Shepherd et al., 2020), our coding process followed the well-established three steps: first, we employed open coding to generate first-order categories, second, we used axial coding to subsume them under second-order categories. On this basis, we then, in a third step, created our overarching aggregate, abstract dimensions. With our three-step approach, we enhance our theoretical rigor and parsimony (Gioia et al., 2013; Pratt, 2008).

We started our manual coding process with open line-by-line coding, in which we generated first-order codes directly emerging from reading the raw data (Charmaz, 2014; Thomas, 2006). Here we used the interviewees’ words to describe the codes. In this emergent coding procedure, we for instance created the descriptive code “creating emotional distance

between entrepreneurial activity and entrepreneur” from the expressed phrase “But one has nevertheless been able to create a certain emotional distance between the baby ‘venture’ and oneself” [I16: 19]. From the phrase “It is not that I have a split personality, but it is a little bit, that one has the impression that I act differently in private than in the professional environment” [I16: 20], we create the code “splitting behavioral patterns with different roles” to capture how entrepreneurs deal with their obsessive passion.

As the data analysis process proceeded, we constantly compared the generated units of meaning with newly created codes to refine their boundaries. And we updated them with newly collected data. The more raw material we coded and by iterative re-reading and re-reading the transcripts and codes, we noticed similarities and differences in our codes (Corbin & Strauss, 2015; Gioia et al., 2013). For example, we noticed that when entrepreneurs describe handling their passion it incorporates different degrees of agency ranging from complete passivity (endurance) to a high degree of control and agency. For example, a passive “Reactiveness: wait and see attitude” is shown in the phrase “There are for sure these phases, in which you know: This will be over in three weeks, then the project is over [...] then it will be quieter” [I26: 102]. On the contrary “taking control over the entrepreneurial activity” is on the other end of the continuum represented by for instance the phrase “It is my responsibility, if I take the free time or not and I need to block it in my calendar and I must defend it against incoming tasks” [I20: 28].

Consequently, after this step, we performed axial coding and collapsed several first-order codes together and created broader second-order codes. Further, we tried to identify the relationships between the codes and subcodes. The second-order categories are on a more abstract level of analysis but, when possible, we tried to maintain the interviewees' words for their descriptions. For instance, we created one code “creating distance” to capture several forms of distance creation such as geographical, emotional, spatial, or temporal distance described by our interviewees. Specifically, we subsumed the codes: “Making the company

independent of the entrepreneur”, “Splitting behavioral patterns with different roles”, “Creating emotional distance between entrepreneurial activity and entrepreneur”.

In a third, subsequent step, we zoomed even more out and tied several second-order codes together to more abstract and aggregated dimensions, which represent their common core (Charmaz, 2014; Corbin & Strauss, 2015). In this step, we focused on the overarching processes and theoretical mechanisms emerging from the data. For instance, part of this step was, that we created the aggregated dimension “handling strategies” to subsume the distinct strategies entrepreneurs described to deal with their passion. For instance, we subsumed the above-described code “creating distance” together with other ways of how entrepreneurs deal with their obsessive passion, for instance, some “implement systems” to break their obsessive phases and remind them of duties outside of their work. For example, one participant adds “bringing girlfriend flowers” to his to-do list to not forget it when he works obsessively. Another example, which we classified as a handling strategy is “negotiation with stakeholders” as various entrepreneurs describe how they communicate with others to live out their obsessive passion and delegate their duties meanwhile.

In this step, we also discarded less relevant codes. For instance, we decided to discard the codes describing the entrepreneurial journey and entrepreneur’s personal background, which did not show any relationship with their passion. Some second-order codes were straightforward and easy to cluster like the different handling strategies described, while others took several rounds of iteration. For instance, the positive appraisal as another core aggregate dimension emerged later, because before we had subordinated them (e.g., “Obsessive passion as something positive”) under other neighboring dimensions such as “perception” and “handling strategies” and not separated them. Figure 4 shows our data structure.

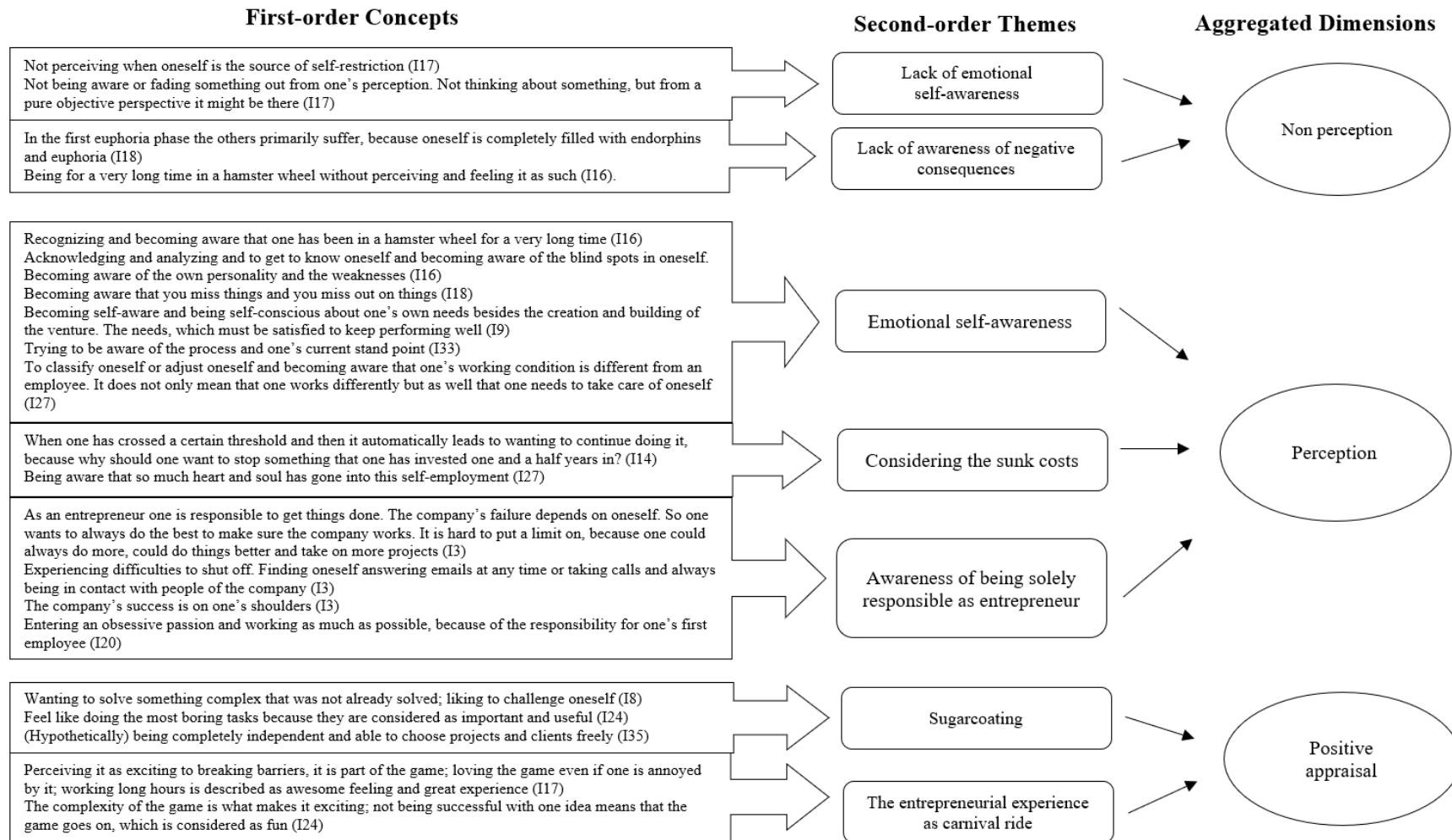


Figure 4. Data structure

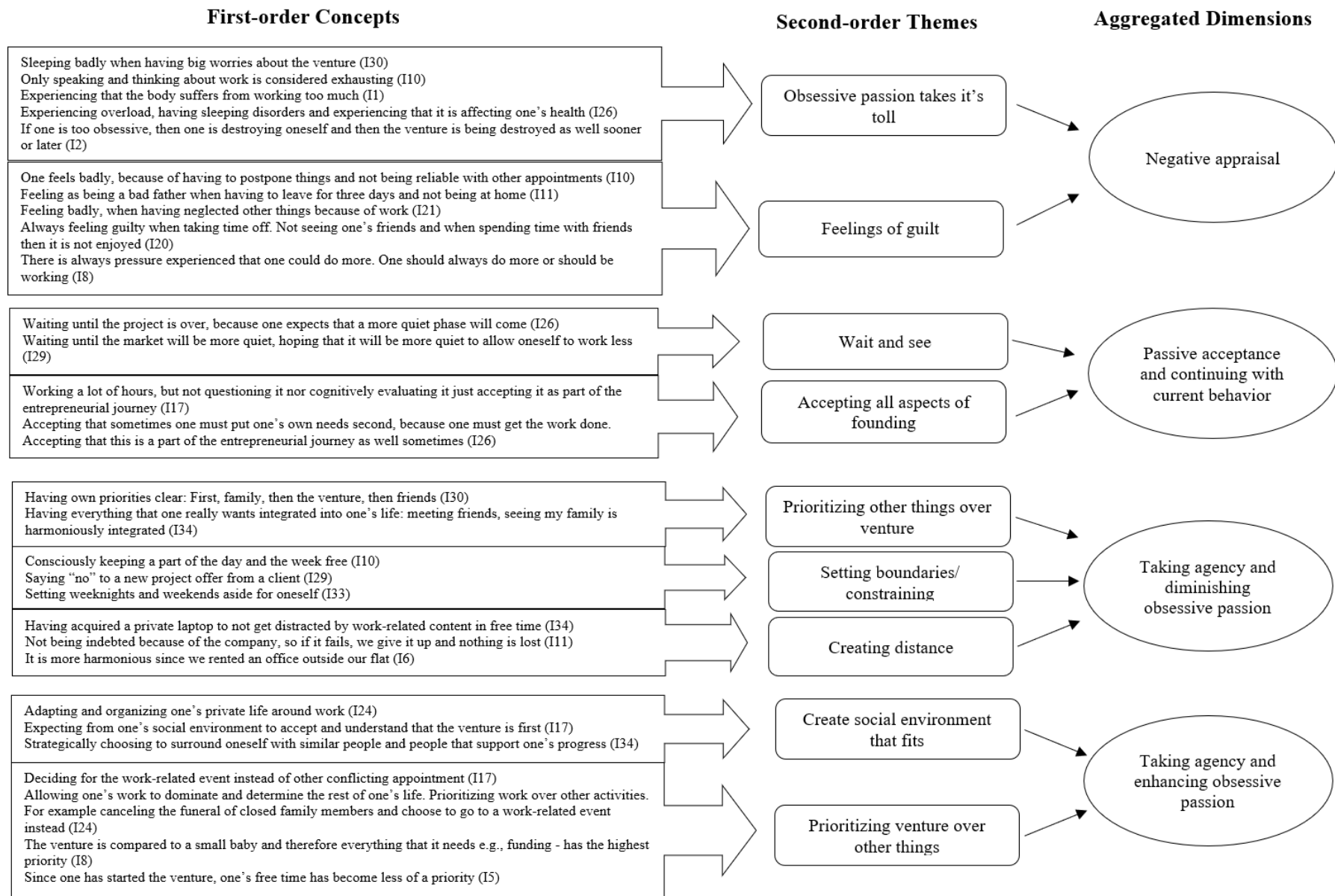


Figure 4. Continued

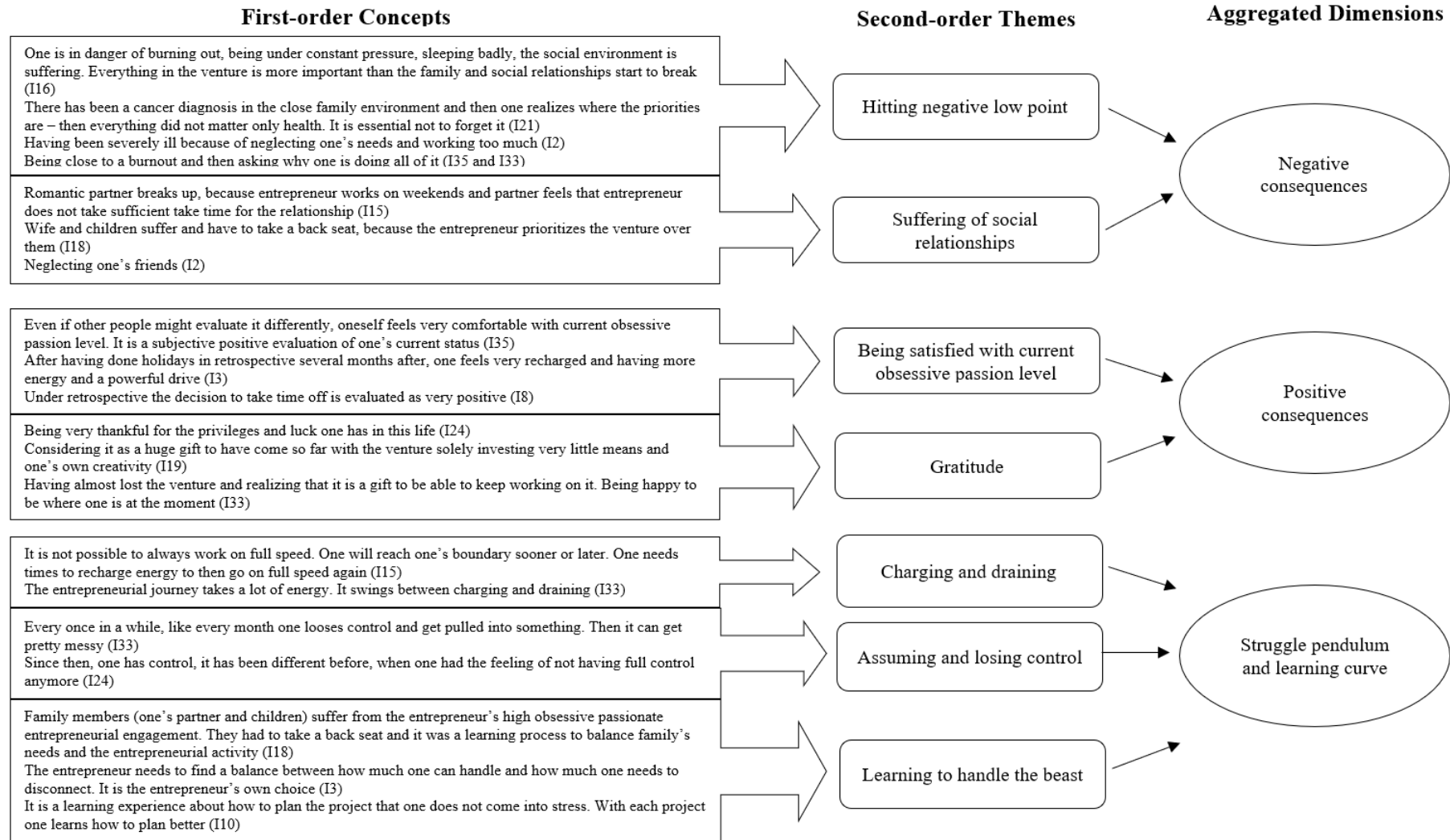


Figure 4. Continued

3.4 Results

In this section, we introduce and explain our findings in line with our model shown in figure 5. We support our findings with representative evidence from our data. Example quotes are shown in Table 8. The core of our model consists of three main parts: Cognition, behavior, and the outcome, which are the three steps of passion handling: first, cognitive processes, that precedes behavior, which is followed by certain outcomes. The arrows pointing back indicate that the processes are not static and only one-time occurrences but iterative and reciprocal.

Table 8. Representative evidence

Representative quotations	Aggregated dimension	Overarching process step
<p>“So maybe it is like this, but one is not aware of it or you just fade that out. At least that’s how I do it. That’s also something that you don’t think about, but it’s probably like that from a purely objective point of view.” (I17: 80)</p> <p>“And then I sought professional help [...] and then I recognized ‘Oh, damn, you’ve been in a hamster wheel for a very, very long time that you didn’t even realize. Although you have actually always felt free and self-determined and not in the hamster wheel.” (I16: 14)</p>	Non perception	Cognition
<p>“Okay, I don’t have an eight-hour workday anymore, because I can say I am as efficient in five hours [...]. I can work 20 hours as well if I want to. No one stops me. And this, there finding a balance [...].” (I28: 33)</p> <p>“It can definitely dominate your mental patterns if you are not really aware of it - it can definitely dominate your time. I think the analogy I like to give it’s like a beast, that will never stop eating. So, you have to decide to stop feeding it, you know.“ (I33: 34)</p>	Perception	
<p>“Yeah, and the experience itself [...] as an adventure. There is not always a reason why. Why do people throw themselves down a steep water slide? They sometimes only do it because they find it awesome. And similar it is maybe with founding a venture. [...] It is like kind of an adrenalin kick” (I17: 16)</p> <p>“That for me the obsession per se was not negatively burdened. And I would say that as long as I enjoy working on something that I really enjoy and have a lot of fun with [...] And that probably sounds a bit cliché now, but it’s the case that I can really do what I enjoy every day at work. Like this.” (I23: 68)</p> <p>“I think, they [hamster wheels] can be quite useful, because once you are on it, you can get more stuff done more quickly. Like, once you’re in the chain [...]” (I29: 124)</p> <p>“I’ve talked to a lot of entrepreneurs; they get a lot of negative feedback early in the process, and, then the obsessiveness there then takes over, and, and you’re like ‘it is gonna work,’ and I don’t know, maybe that’s not always the healthiest mindset, but, yeah, that’s what you need.” (I33: 132)</p>	Positive appraisal	
<p>“Once you’re in the chain [...] it doesn’t allow you to be creative. It allows you to be more like of a machine, but not really creative. And I think, that is a bit of a problem in this job when you do need to be a bit creative.” (I:29: 124)</p> <p>“For the first year and a half, I didn’t take really any vacation and that really hurt me at one point. And the pain, that that caused, I was just like, well I don’t want to be that again.” (I33: 30)</p> <p>“So, I say in the first swing of the euphoria phase, primarily the others suffer, because you yourself are totally in the euphoria, endorphins and whatever [...]. And then you notice that you miss things. So, that there is no longer enough time together with the people who are important to you, you neglect friendships in the sense of not answering messages or not answering messages meaningfully or not answering them on time [...]” (I18: 40)</p>	Negative appraisal	
<p>“I don’t question it at all if I am honest, not at all, absolutely. I don’t think about it. If I get an offer, then the decision is already made for me. And there is no, what is this called cognitive processing taking place, to evaluate it - regarding entrepreneurship, this is completely blocked.” (I17: 34)</p> <p>“Yes, well, the temporal aspect [...] I don’t consider it. For example, we were at a trade fair from 8 to 24 [o’clock] or so. And if it’s just like that, then it’s like that. Then I don’t think about, okay, yes, I did something on my company for 16 hours today, or so. But I really don’t put that up for debate at all.” (I17:44)</p> <p>“Well, of course there are phases where you know that it will be over in three weeks, that the project will be over, and then [...] there are fewer other topics and so on. Then it’s quieter. Then you just wait until the time is over.” (I26: 102)</p>	Passive acceptance and continuing current behavior	Behavior
<p>“You also have to look after yourself. So, I have my breaks, I take my time off. Because it’s true of course, this saying, well it can be true, this ‘self and constantly.’ And, that you also mentally, that you really detach yourself. And for me it’s like this now; I also still work from home [...], my office is here. And, that I separate that [...] so that you really say and now it’s over [...] now it’s the weekend. So, I pay a lot of attention to that.” (I27: 38)</p> <p>“I think the most important thing is to consciously take time [...] and put as one of your to do’s on the list to bring your girlfriend flowers or something like this [...]. If a lot of things are flying in your head, it can fall into oblivion. And I don’t want her to suffer, and therefore I take it on my plan together with other things.” (I34: 57-59)</p>	Taking agency and diminishing obsessive passion	

<p>“And I claim it from the people I surround myself, that they understand it. And they normally understand it.” (I17: 30)</p> <p>“Like my relatives, like the people closest to me, they just understand, they understand what is at stake, that I have. And that we have as a company. So, (...) right now the company is like a small baby, so everything that it needs\ like if it needs funding that's the priority for sure.” (I8: 46)</p> <p>“So, there is never discussion, we never have a discussion about how to clean the house, who cleans the house, anything like that, because it is just done - it's all scheduled. We have a rowbar hoover, who is programmed. It's freaky and weird [...] We've built all these systems into our lives, which means that like, we can just focus on our jobs at the moment.” (I29: 84)</p>	Taking agency and enhancing obsessive passion	
<p>“If I work a lot and then don't [...] give my body the sleep it needs, then the logical consequence is that it's also not sustainable for myself. [...] I can certainly work for a week on four hours of sleep, but I'm just significantly more efficient in the long run if I sleep more. [...] personal performance is less sustainable if you simply destroy yourself than if you consciously create spaces in which you can come down.” (I34: 139)</p> <p>“The one or the other woman in my life did not like it, that I worked on Saturdays or as well on Sundays. Therefore, she is now my ex-girlfriend” (I15: 58)</p> <p>“In spring, when I was ill, I slipped down the razor blade so to speak. Because it is, if you work too much, you always need to listen to your body and see when it is too much. [...] For me it is the sleep, which I restrict, even though I know that I would need more” (I2:10)</p>	Negative consequences	
<p>“If I am not the one pushing that project forward, it's not happening. And that has consequences if you lose a week, should be fine, but you never know. Things get close, things get tight with financing and a week could make all the difference. So, it's hard to justify, how to spend that week [...]. But that's what I mean, it's like the beast that never stops eating, like I could work on it 24/7 [...] and probably not get any better results. So, you have to figure out the optimal approach (I33: 36)</p> <p>“So, finding that balance that's something I am still working with for sure, because I still struggle with you know, like always being available and kind of always taking tasks, when people are asking and so on.” (I3:16)</p>	Struggle pendulum	
<p>“Because when I'm on fire for something, I have a very, very high level of commitment to it, and, then it happens that others suffer from this commitment [...] my partner [...] and my children [...] they've always had to take a back seat. And that was a learning process, to balance that out and to find a level that is in balance. (I18: 38)</p> <p>“We plan our project ourselves. And if we plan them too tight and come into stress, then it is a learning experience. That you say, next time, we need to plan better and different.” (I10: 44)</p>	Learning curve	Outcome
<p>“One evening, one of my employees stood at my door saying ‘boss, we decided that you are out of the company for three weeks because we are afraid that you fall over’ [...] And then I stepped back and realized they are right. I am nothing but under a constant load and sleep badly.” (I16: 14)</p> <p>“I [...] am just so really immersed in the subject matter. And then it's almost obsessive. [...] now my son is there, and he simply says ‘Mom, I'm hungry?’ Like this. So, he gets me out [...]” (I35: 69)</p> <p>“If I am somewhere else in my head, my girlfriend notices, and she says: ‘Go.’” (I4: 38)</p>	External intervention	
<p>“This summer, I made an effort to actually take holidays, like proper holidays [...] really taking some time to disconnect and recharge [...] in the end now, having said and done that, I can feel now in the fall, like having more energy and you know, like having that drive. Kind of recharged [...]” (I3: 14)</p> <p>“For [my] wedding, when I decided to take like one week off work, [...] And in retrospective, I see I made a good decision, but just at the beginning it's hard to do that [...]” (I8: 34)</p>	Positive consequences	
<p>“It is a way of living, I consciously chose. I have to admit it has the disadvantage of earning less money that I would like to because I have to tell certain clients [...] ‘No’ [...], but I know for what I am doing it for. I know that this goes until, let's say until the kids are 14, 15, and then they have their own lives and then I can work more [...]. Therefore, for me it is a conscious decision.” (I13: 42)</p> <p>“Working a little bit more obsessively on your idea - it leads to success. [...] But I would not have been able to keep this pace. [...] In the short-term to save some time yes, but I don't think it is a long-term success model.” (I16: 78)</p> <p>“There are of course times when you have to work 80, 90 hours a week. But this cannot be a permanent condition for the rest of your life. This is not possible” (I21: 10)</p>	Temporary maxima	

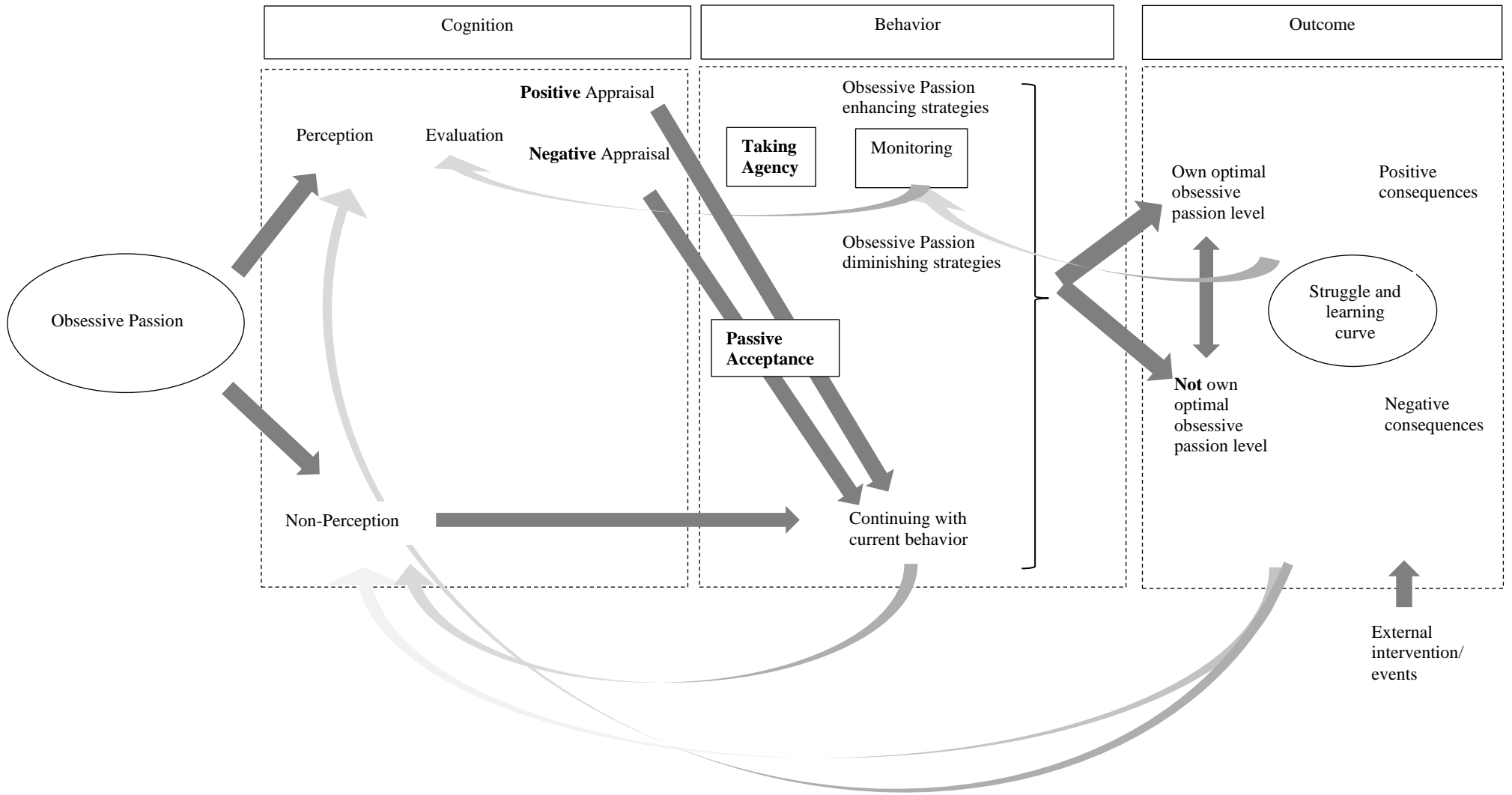


Figure 5. The cognitive and behavioral components of obsessive passion handling

The Cognition of Obsessive Passion Handling

Non-perception versus Perception

The essential prerequisite to dealing with obsessive passion is to become aware of it. Some entrepreneurs will consciously acknowledge their obsessive passion, while others will not become aware of it and “just fade that out” [117: 80]. “Non-perception” of obsessive passion is so likely to occur in the entrepreneurial context because of a lack of external boundaries to work, such as set office working hours or colleagues who will observe and note a potential obsessive working style. Recognizing that their working conditions have changed significantly is a first step for entrepreneurs.

Entrepreneurs must gain conscious self-awareness of their obsessive passion and its consequences to initiate either an active or passive handling process. For some very deeply controlled by their obsessive passion, only an external intervention can trigger this awareness. In particular, those who experience frequent success often do not consciously consider their obsessive passion. However, the opportunity to purposefully mold one’s obsessive passion only becomes available through the process of emotional self-awareness. Without such awareness, entrepreneurs remain like “puppets on a string” following their obsessive passion. In the following quote, the entrepreneur acknowledges her obsessive passion as an addiction that has risen to the level that she will engage in it even without compensation:

“I enjoy doing it. It is like an addiction. I do it all the time. I am always setting people up in interviews even when I am not paid for it.” (129: 96).

Becoming aware of and perceiving one’s passion can be likened to a psychological growth process resulting in emotional self-awareness. After gaining this conscious awareness, an internal evaluation takes place to decide whether the obsessive passion is beneficial or harmful.

Evaluation: Positive Appraisal

After entrepreneurs perceive and acknowledge the design and nature of their passion, they initiate a cognitive process to evaluate it. The positive evaluation is characterized by three components: first, an intensive positive feeling; second, a cognitive focus (tunnel); and third, fast advancement. One entrepreneur described like as being like the “adrenaline kick” (I7: 16) of throwing oneself on a steep water slide.

The first aspect of this judgment can be described as enjoying an activity to a very high extent and therefore perceiving an obsessively passionate pursuit as positive. An essential reason why entrepreneurs evaluate it as positive is that they “really enjoy working” (I23: 68). Entrepreneurs often start a business related to their area of interests or even prior hobbies. Therefore, the pure act of engaging in entrepreneurial activity likely brings them joy. Many entrepreneurs burn for their idea and deeply believe in the value they bring to customers. Additionally, this engagement can be framed as loving to play a complex game. Entrepreneurs are often driven by the enjoyment of solving a complex problem in an uncertain environment. The learning experience of gaining a better understanding of the rules of the game and being able to shift the situation to one’s advantage results in a positive addiction driving the desire to achieve increasingly higher gains.

Another aspect of positive judgment is that the positive feeling is conserved within a cognitive tunnel. This implies focusing on the task at hand and experiencing enthusiasm while doing so. Other thoughts or opinions are shielded or suppressed. The only measurement entrepreneurs apply are their levels of happiness and rightness (i.e., their measure of success is their well-being). Although people close to them may express their concerns, they do not let themselves become distracted. It can even appear as if they do not perceive pursuing their entrepreneurial activity as working, but rather as doing something they enjoy. This feeling can be compared with that experienced while engaged in adrenaline-laden hobbies such as swimming or running. Entrepreneurs describe enjoying focusing purely on one activity. What

follows from this combination of the cognitive tunnel and intense positive affect is experienced as a maelstrom. One entrepreneur stated as following:

“[...] is a really cool thing for me, because I really enjoy it [...] And then the more you get involved with it, the more like ‘oh god, no, that needs to be right, that needs to be right, that needs to be right, oh no.’” (I29: 94)

Floating in such a maelstrom further enhances entrepreneurs’ positive feelings and the cognitive tunnel because this often leads to success, which continues to fuel the cognitive tunnel and enthusiasm. Thus, entrepreneurs do not perceive the need to change or thoroughly evaluate their current path. As such, obsessive passion is considered an asset and described as positive stress. Entrepreneurs describe working obsessively as allowing them to carry heavier workload and advance faster.

“I think [a hamster wheel] can be quite useful, because once you are on it, you can get more stuff done more quickly. Like, once you're in the chain [...].” (I29: 124)

Obsessive passion can be described as an essential tool to survive the challenges and hardships of the entrepreneurial journey. One interviewee described it as “maybe not always the healthiest mindset but that’s what you need” (I33: 132) to survive and succeed as an entrepreneur. This is because entrepreneurs are confronted with a lot of negative feedback, and high competition and need to overcome numerous obstacles. In such an environment, increased cognitive focus and over-optimism that drive one from accomplishment to accomplishment are key to success.

Another positive aspect is the signal obsessive passion sends to others. As entrepreneurs and leaders of their venture, they must be role models for their employees. One could describe it as the need to walk the talk when it comes to sacrifices and personal investment in the company. Further, when convincing others such as investors of the viability of a business, obsessive passion signals commitment and tenacity. Investors may interpret less

obsessive passion as a sign that entrepreneurs lack commitment. As such, obsessive passion is regarded as a useful tool particularly in the entrepreneurial context.

Evaluation: Negative Appraisal

Entrepreneurs may also judge their obsessive passion as negative due to the disadvantageous consequences they experience because of it. For example, one interviewee stated:

“Obsessive times, in which the basic mood was worse because there was a ‘we have to’ feeling prevalent: ‘I have to do this and that; if not we have screwed up’.” (I7: 73).

The negative consequences of obsessive passion can be divided into first, those for oneself regarding working on the entrepreneurial venture; second, those for oneself outside work; and third, the wider consequences for one’s environment. The negative consequences for the wider environment are the most intuitive and often the most observed. Entrepreneurs acknowledge that by obsessively pursuing their entrepreneurial activity, they often hurt important others even without noticing. They neglect the needs of their spouse or other people close to them because their entrepreneurial activity dominates their cognitive and behavioral patterns. For instance, not spending time with important others such as one’s spouse or children increases interpersonal conflict and feelings of guilt.

In addition to the negative consequences for interindividual relationships, entrepreneurs experience the negative impact of their obsessive passion on themselves. This begins with the negative feelings associated with having to forgo other things one enjoys and the perception of “being forced to” neglect important others because of the obsessive pursuit of the entrepreneurial activity. Entrepreneurs describe this restriction of their freedom to decide how to spend their time as a negative experience. More severe consequences for entrepreneurs are physiological or psychological health problems such as burnout. Other, consequences include sleep problems caused by increased rumination, and being unable to

“switch off,” which hinders effective recuperation and recharging. Emotional exhaustion results from purely focusing on one thing in an obsessive manner of activity engagement.

Furthermore, such an obsessive pursuit can have negative consequences for the entrepreneurial work. Work performance and productivity suffer because entrepreneurs are unable to sufficiently recharge, and extreme focus inhibit creativity. This working style is not effective in the long-term. Entrepreneurs acknowledge that to be able to invest in one’s work effectively, their own capacity must be recharged and fueled by other sources as well. If these negative consequences accumulate and obsessive phases extend over longer periods, low points are experienced such as burnout, severe illness, and an end to an important social relationship. Some interviewees described their low point as “hitting a big wall” (I33: 126) or “standing in front of burnout” (I35: 69), while for others it felt more like a “big bang”, they experienced when they lost control (I24: 46). However, entrepreneurs often describe a personal turning point following their low point, after which they consciously manage their obsessive passion to diminish negative consequences. Notably, many entrepreneurs describe a high degree of obsessive passion as being common in earlier stages, until negative consequences occur that trigger conscious handling to find optimal balance.

The Behavioral Component of Passion Handling

Passive Acceptance and Endurance

Passive endurance is what follows from a non-perception and non-evaluation. Entrepreneurs describe that in such a state they do not cognitively process certain information. The venture is always prioritized as first and most important without doubt or questioning. The cognitive tunnel and suppressing of alternative goals and information are so strong, that it takes up entrepreneurs’ entire focus. In the most extreme form, an obsessive passion leads to a pure state of self-sufficiency in which there is no feeling of lacking something, neglecting it, or missing out on something.

“For instance, when I wrote 3 days from 8 am to 12 pm for the Bavarian business plan competition, day in and day out. It was extensive, 30 pages [...] that was an amazing feeling and an awesome experience. That means I am very well [...] and I need nothing else.” (I17: 54)

As such, obsessive passion has reached the highest degree of power over the individual, controlling not only the behavioral patterns but also the cognitive processes by completely inhibiting emotional self-awareness as a prerequisite to perception and agentic handling thereof. However, this path can as well be the result of a negative or positive evaluation. It is simply not taking active control over the obsessive passion handling, but rather passively accepting whatever it may lead to i.e., whatever the consequences thereof are. For instance, when entrepreneurs follow the immediate gratification and pleasure of their obsessive passion without any restriction. What fuels this status is the euphoric feelings and endorphin height due to the accomplishments achieved due to it.

The third case is when entrepreneurs perceive obsessive passion in the first place and subsequently clearly see its negative downsides. However, they still do not actively take control and initiate handling thereof. They endure and hope that external factors such as changes in the market will let them slow down. Another common external boundary to their obsessive passion is the end of a stressful project. It may seem somehow surprising that even though the negative consequences are perceived there is no action initiated. This may have various reasons; one is that the consequences are not severe enough to trigger action. Another may be not having the personal strength of taking control, not being aware that one could simply take control. When asked why they still work obsessively even though there is no external pressuring boss anymore, and while perceiving mainly negative consequences of the obsessive passion, entrepreneurs gave reasons that it is their drive, their pressure, and high internal achievement orientation. The cognitive suppressing of alternative information, intense

enjoyment of activity engagement, and the maelstrom with its strong self-reinforcing momentum are the key characteristics of an obsessive passion.

Taking Agency and Diminishing Obsessive Passion

Entrepreneurs may take control and act accordingly. The conscious decision may come as a somewhat clear and strong moment in which a decision is taken. As such, in this case, it was a new year's resolution.

“I noticed that I always feel guilty when I take time off and I also see that I hardly have any time with my friends or if I do, I feel it's a disruptive time away from my company. And I just didn't want that. And then I made the decision very consciously and (...) I then made that as a New Year's resolution.” (I20: 42)

Interestingly, this decision can be taken as an avoidance or approval decision. If entrepreneurs had suffered to a high degree from the beast's dangerous and harmful side, then this decision is often taken as avoidance as such that they state the condition they wish to avoid at all costs as they “don't want to come into this condition anymore!” (I27: 48). Others had experienced the negative consequences of their parent's obsessive passion when they were children. This negative memory as a child led an entrepreneur to the decision not wanting to be such a parent to their children. And to avoid this negative image, the entrepreneur decided to restrict her passion until the kids were older. Others formulate their decision the way around in the sense of approaching a desired condition. This is often the case if entrepreneurs have strong personal values and norms or a clear ideal picture of themselves that includes other beloved activities or loved ones. They formulate their decision by “wanting to be a good father” and maintaining a good relationship with one's spouse (I21: 30). Entrepreneurs state that they have activities outside their entrepreneurial activity, that they like and value and bring happiness to them. Therefore, they decide to take time for these activities (e.g., playing in a band) and nurture these other “facets of one's personality” as well (I10: 30).

Entrepreneurs develop an understanding of their healthy fit and optimal level of obsessive passion. They then apply strategies to work towards it. One of the mainly used strategies to diminish obsessive passion is delegating tasks to others. For an obsessive passionate entrepreneur to do so hurts at first, because they are controlled and under the pressure of their obsessive passion. They experience the withdrawal symptoms of not following their addiction anymore. However, they learn that it is ultimately a good strategy for them to let go and share the burden.

“It hurts when you let go [...] but the more trust you grant your employees, the more they give you back. And I notice it again and again when I thought: Boy, do I have to be present in that meeting, or is it sufficient when they report to me later?” (I15: 62)

Entrepreneurs negotiate and communicate with stakeholders outside their company to delegate and get help from them to meet all responsibilities and by doing so they diminish the negative consequences of their obsessive passion and integrate other activities in their life. What comes into play is establishing a strong social network outside of work, which protects and is there to support when needed.

Further, active obsessive passion handlers are intentional and conscious about their actions and cognitive evaluations. Another strategy is to implement protection systems and routines. These systems are set up to restrict them to stay in conformity with their desired obsessive passion level even when they do not assume control. By doing so, they indirectly prevent themselves from being overly obsessive by preventing the condition of obsessive passion to take place. For instance, they apply to nudge strategies to automatically push themselves in the right direction by making it extra hard to fall back into the addiction.

“I say after certain hours the laptop is closed. And I, therefore, bought myself a private laptop, so that I cannot be distracted by some open [work-related] things.” (I34: 57)

Another strategy is creating distance between the entrepreneur and the entrepreneurial activity – for instance geographical, emotional, spatial, or temporal distance. Creating

geographical distance ranges from separating the office from one's private living space i.e., renting an office space outside one's flat. This may manifest as well by moving from the city center to a new home in the countryside. Creating emotional distance is another manifestation of this strategy. Entrepreneurs focus more on the learning curve, they have already achieved in the past and stating that because of this it was worth it regardless of the outcome of the company. They make themselves independent from the uncertain future of the company. They focus on their identity as an entrepreneur regardless of their current venture.

Taking Agency and Enhancing Obsessive Passion

When obsessive passion is evaluated as purely positive, all strategies focus on the enhancement of the obsessive passion. For instance, one strategy entrepreneurs employ accordingly is first, to expect from their social environment to unconditionally accept their obsessive passion. And if they don't conform or are not fulfilling this expectation, they actively and consciously create a social environment that fits their obsessive passion.

"She is my mother; she needs to deal with it." (I17: 82)

A key instrument of how entrepreneurs achieve acceptance and understanding in their social environment is by clearly communicating their wishes and needs from the beginning. They describe that often people close to them understand the importance of their entrepreneurial activity for them and the value that is at stake. If they do not experience unconditional understanding they ask if these are "real" friends or if they anyway still "fit" them [I15: 40). Others state that they consciously choose to surround themselves with like-minded people and those that benefit their entrepreneurial journey in some way.

Another strategy is to prioritize, but contrary to the above this entails prioritizing the venture over other things in life. An extreme example of this strategy is to prioritize the venture over almost everything even such things as the funerals of close family members:

“I went to an event of a project [...] where I believed that I had to be present at this event [...] that's why I canceled the funeral of my grandfather and my great-aunt [...] And [...] if that [...] would happen now, I would maybe do that again. I let my work determine a lot.” (I24: 36)

It is noteworthy, that this is a conscious strategy with which passion is actively handled i.e., enhanced. It is very different from being passively driven and being flown away by the maelstrom, suppressing all cognitive processes, and being overly optimistic and enthusiastic due to the adrenalin momentum. Another strategy of active passion handlers is to implement systems and employ technical devices to live out their obsessive passion for entrepreneurial activity as much as possible. For instance, they arrange their private life as such that they minimize their responsibilities outside of their entrepreneurial passion. The source outsources their housework, shops online and automates the processes as much as possible to fully concentrate on work.

It is noteworthy, that obsessive passion-enhancing strategies are not applied generally with a watering can approach to all activities and areas of the entrepreneur's life. There are indeed these extreme cases, but the majority of entrepreneurs act more differentiated and use a more fine-grained approach. They want to make use of the advantages of obsessive passion in specific occasions, certain circumstances, or specific tasks. The early stages of entrepreneurial activity are characterized by a lack of resources, which makes focus key to success. Therefore, entrepreneurs use their obsessive passion tool to harvest the fruits of a punctually employed obsession for essential activities.

“I am obsessed with how we spend our time, and what is the priority. Because I think focus is extremely important on a small early-stage startup, you don't have so many people, you don't have so much money, virtues, the time, or whatever. [...] I think [...] it really falls back on you when you lose track of something. And that's all we have, trying to build a reputation as an early-stage company.” (I33: 52)

Outcomes

Struggle Pendulum and Learning Curve

Entrepreneurs' attitudes toward their own optimal passion level is often characterized by an intense struggle, which may result in fallbacks and a gradual learning curve toward the optimal obsessive passion level. Even after taking conscious steps entrepreneurs, still describe it as "difficult to step off the carousel" (I33: 26), indicating the strength of the obsessive passion maelstrom. Maintaining the boundaries of their obsessive passion is an open and dynamic system that often resembles a pendulum swinging from one extreme to the other before finally reaching equilibrium. Entrepreneurs perceive it as "swinging between charging them up and draining them" (I33: 8). This learning process of gradual emotional self-awareness occurs after entrepreneurs reach a conscious realization of their disadvantageous status quo and actively gain control over their passion. For example, one interviewee stated:

I have learned by now that I should not sacrifice my health, you know. (I35: 65)

Entrepreneurs face great uncertainty about how and to what extent they should handle their obsessive passion in the beginning, meaning they must discover their optimal level over time. They will tradeoff between the advantages and disadvantages of their obsessive passion until they locate their optimal maxima and know which suitable diminishing or enhancing strategies they can employ.

External Intervention

Others may intervene to break through an obsessive passion tunnel. In one extreme case, employees came to their boss's office and told him to take three weeks off for his health. In some cases, such external interventions may be needed to initiate an entrepreneur's conscious perception of their obsessive passion. In less extreme cases, obsessive working phases are interrupted. These interruptions may come from close family members. For instance, children who require the care of an adult can serve as an external antidote to obsessive passion.

Reaching One's Optimal Level: Positive Consequences

Restricting one's addictive working behavior might also be a difficult experience at times. An essential outcome of having reached one's optimal obsessive passion is to appreciate its benefits and acknowledge it as a good decision afterward despite others' potentially contradictory opinions. Having achieved their optimal level of obsessive passion rewards entrepreneurs with increased productivity and resilience. Entrepreneurs acknowledge the benefits of having recharged, and report feelings of power and strength. Furthermore, entrepreneurs living in a state of equilibrium report a strong sense of meaningfulness in what they contribute through their entrepreneurial activity. However, this is not in the sense of sacrificing themselves for a greater cause but using their strengths and energy positively and powerfully.

Temporary Maxima

Entrepreneurs choose certain handling strategies and a certain level of obsessive passion because it represents their perfect fit *at the moment*. Temporary maxima are based on the current conditions but may change in the future. Some entrepreneurs have stated that they are young and without kids and large family responsibilities now; therefore, they consider a higher obsessive passion level as adequate for making the most of their current situation. However, the obsessive passion level may change when their situation and thus their priorities change. The stage of the venture was mentioned as another reason. Entrepreneurs describe their venture as their "baby" that requires their obsessive dedication. However, entrepreneurs are convinced that this must change after the venture becomes more mature and independent.

3.5 Discussion and Implications

Passion is an important entrepreneurial driving force and key for business performance (Adomako & Ahsan, 2022; Kiani et al., 2020, 2021; Murnieks et al., 2014) and a lot has been investigated about the antecedents and consequences of an obsessive type of passion (Curran et al., 2015; De Mol et al., 2018; Newman et al., 2021; Pollack et al., 2020; Vallerand, 2010; Zhao & Liu, 2023). But we have a very limited understanding of how passionate individuals

actively influence their obsessive passionate pursuit of the passionate activity. We show *why* and *how* individuals handle their obsessive passion by drawing on data from an entrepreneurial working context. We find that entrepreneurs develop positive or negative perceptions of obsessive passion which triggers different behaviors to enhance or diminish the obsessive passion. By applying different handling strategies, entrepreneurs influence their passion composition to make optimal use of the advantages of their obsessive passion while minimizing its harmful effects. With this, they are able to implement their optimal level of obsessive passion for their entrepreneurial activity.

First, we contribute to passion research by showing *why* passion changes - i.e., that this is possible due to its active handling by the passionate individuals themselves. We establish cognitive perception and a conscious self-awareness as a prerequisite for active passion handling and therefore its change. Literature on self-regulation has discussed self-attention as a main prerequisite for a conscious evaluation, which precedes human behavior (Carver & Scheier, 1981, 1990, 2000). Bélanger et al., (2015) have shown that the self-regulatory mode *assessment* predicts obsessive passion. We show that cognitive processes must be enabled through a conscious perception i.e., an awareness of passion and its consequences. For instance, experiencing and realizing the harmful effects of obsessively pursuing entrepreneurial activity over longer time frames. We show that the perception can be triggered by external interventions as well when one experiences harmful consequences to a high degree.

Conscious awareness is the catalyst that sparks the evaluation process, enabling entrepreneurs to set specific goals on their optimal obsessive passion. Thus, the individual interpretations of obsessive passion matter for subsequent action, highlighting that not only can obsessive passion be seen as a useful tool, but whether entrepreneurs are aware of both its up- and downsides strongly shapes their actions. With this, we show how individuals constantly evaluate and monitor their progress and intervene with corrective action when

necessary (Carver & Scheier, 2000; Lord et al., 2010). This helps us answer the question of *why* individuals engage in active passion handling: first when they perceive their passion and second when they have done an evaluation thereof.

The result of the perception and evaluation process leads us to the question of *how* passion is then changed. With this, we advance prior research that has investigated the antecedents of passion (Gielnik et al., 2015, 2017; Lalande et al., 2017; Murnieks, Cardon, et al., 2020; Stroe, Wincent, et al., 2018) and show how entrepreneurs shape the on-going development of their passion by applying different strategies that fit their perception and goals. The notion has already emerged that passion is not a stable trait-like construct as considered before, but that it changes over time (Collewaert et al., 2016; Frese & Gielnik, 2023; Gielnik et al., 2017; Lex et al., 2022). We add to the understanding of how passion changes by shedding light on the mechanism underlying such changes i.e., first, we build on the entrepreneur as an active agent as a source of passion change, second, we show how entrepreneurs apply different handling strategies such as relativizing, prioritizing and constraining to change their obsessive passion purposefully according to their passion fit. Echoing self-regulatory theories, our findings show that entrepreneurs handle their passion by consciously using handling strategies (Bandura, 1989; Lord et al., 2010). We acknowledge that obsessive passion can have both: negative and positive outcomes (Curran et al., 2015; Pollack et al., 2020).

We divide the passion handling strategies into passive and active strategies. In our model, we show that the question, of whether a passive or active strategy is applied, depends on the characteristics of the preceding steps i.e. if the obsessive passion is perceived and evaluated as strongly negative. With this, we contribute to research on the “dark side” of passion and the handling of the negative effects of passion, which has so far been understudied (De Mol et al., 2018; Ho & Pollack, 2014; Pollack et al., 2020). The severity or in the words of self-regulation theory the discrepancy between the desired state and the

current status, makes an individual take different kinds of actions. An active strategy is chosen when the current status is evaluated as being very far from a desired state. We posit, that entrepreneurs' understanding of their obsessive passion triggers entrepreneurs to become active and aware of the negative and positive consequences. This learning process enlightens them to develop an understanding of what their own optimal obsessive passion fit looks like and enables them to apply strategies accordingly. With this, we substantiate research that suggests a functional role of obsessive passion in entrepreneurship, as we provide empirical evidence for its usefulness in an entrepreneurial context (Fu et al., 2022; Murnieks et al., 2016; Thorgren & Wincent, 2015). We argue that it should be considered a valuable tool for entrepreneurs, which can be intentionally employed to support the entrepreneurial endeavor. We move the research field toward a more active, agentic view of passionate individuals.

Our results will be of high practical relevance because the passion for work can take on an obsessive form. Some working conditions such as the early entrepreneurial stages increase the likelihood of an obsessive passion to develop (Stroe, Wincent, et al., 2018) and with it its potentially harmful consequences (De Mol et al., 2018; Stroe et al., 2020). With our results, we equip passionate individuals with the understanding that they are not the victim of their obsessive passion, but they can choose from a variety of strategic approaches to shape and mold their passion towards their passionate activity in their own desired way. By applying their set of handling strategies, they are able to work according to their own optimal obsessive passion fit and passion composition. With this, individuals can make use of the advantages of obsessive passion by finding a strategic approach that fits their productivity optimum and their own desired level of obsessive passion. And by doing so decrease the risk of suffering from the negative sides of their obsessive passion.

3.6 Limitations and Avenues for Future Research

Our research represents a first step towards understanding the conscious handling of passion and its consequences after its initial emergence and provides the basis for future, in-depth research. We encourage further research to explore the handling strategies for different types of entrepreneurs e.g., unconventional or end user entrepreneurs (Boyaval & Herbert, 2018; Guercini & Cova, 2018; Hamdi-Kidar & Vellera, 2018) or throughout different venture stages to observe how the functionality and role of obsessive passion change over time together with the active handling thereof. A fruitful avenue for further research would be to investigate obsessive passion's handling with regard to different entrepreneurial activities and its respective influence on entrepreneurial success (Adomako & Ahsan, 2022; Cardon et al., 2009, 2013; Milanese, 2018).

Our research results are based on an individual-level analysis. We touched on stakeholder intervention only occasionally when entrepreneurs provided us with insights in the interviews. However, prior research has indicated the importance of interindividual processes and passion transfer for example within a new venture team or between leaders and subordinates (de Mol et al., 2020; Hubner et al., 2020; Makino et al., 2020; Santos & Cardon, 2019; Uy et al., 2021), therefore we strongly encourage to investigate thoroughly and comprehensively the role of the entrepreneurial team members and passion composition and the interactions within a team. How do other team members influence passion handling? When and how do they intervene and what do the mechanisms of such an intervention look like? We consider these research questions to be highly promising avenues for further research.

3.7 Conclusion

Building on Vallerand's dualistic model of passion (Vallerand et al., 2003) and based on a self-reflective and self-regulatory (Bandura, 1989; Carver & Scheier, 2000) view on

passionate individuals, we explored how entrepreneurs handle their obsessive passion. Specifically, we developed a framework covering the cognitive and behavioral components of passion handling. This study's findings show how passionate individuals purposefully shape their suitable passion composition to optimally utilize the advantages of their obsessive passion while minimizing its harmful consequences.

CHAPTER IV: PASSIONATE TODAY, PASSIONATE TOMORROW? EXAMINING THE SELF-REGULATING AND SELF-ENHANCING FUNCTIONS OF PASSION

Abstract

Entrepreneurs' passion is a pivotal resource that may evolve during an entrepreneurial journey. We develop a "passion-as-a-resource perspective," incorporating competence experiences (satisfaction or frustration), current passion levels, and passion type (harmonious and obsessive) and revealing how passion intensifies or diminishes over time. Two empirical studies on entrepreneurs—an experience-sampling study involving 209 entrepreneurs (1,172 lagged observations over seven weeks) and a between-subjects experiment with 191 entrepreneurs—validate our model. Our findings show a self-regulating function of harmonious passion that reduces competence experience effects, and a self-enhancing function of obsessive passion that stimulates competence experience effects on obsessive passion development.

Keywords: Dualistic model of passion, psychological resource, obsessive passion, harmonious passion, competence

4.1 Introduction

Passion, whether it be harmonious or obsessive, is an important driver of entrepreneurial endeavors (Fu et al., 2022; Gielnik et al., 2017; Murnieks et al., 2016).

Passion is defined as “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757).

Although current entrepreneurship research is relatively clear on the “power of passion” and how it is first established, our knowledge of how passion develops over time is more limited (Newman et al., 2021). Recent research has suggested that passion is not stable after its emergence but continuously fluctuates and develops over time (Bredehorst et al., 2023; Collewaert et al., 2016). Nevertheless, how these dynamics unfold and why entrepreneurs’ passion sometimes wanes while other times it stalwartly enhances despite negative experiences, is neither answered by existing passion theories nor the few existing studies on passion development (Kakarika et al., 2022; Newman et al., 2021).

The present research applies the dualistic model of passion (Vallerand et al., 2003) and integrates insights from the conservation of resources theory (Hobfoll, 1989) to explain *the development of passion over time* beyond its initial emergence. We blend these two theories to develop a “passion-as-a-resource perspective,” which implies that passion is a valuable resource for entrepreneurs. From this perspective, we consider three factors to develop a better understanding of how and why passion changes in entrepreneurs over time: 1) the nature of competence experiences that entrepreneurs encounter during their journey (hereafter called competence satisfaction and frustration), 2) current level of passion, and 3) type of passion internalization (i.e., harmonious or obsessive). Entrepreneurship is rich in experiences of both competence satisfaction *and* frustration (De Cock et al., 2020) that stimulate intra-individual evaluations that triggering the development or depletion of passion (Vallerand, 2015). However, how these experiences are cognitively and emotionally processed depends

on both the level and type of passion. For instance, at elevated levels, harmonious passion is less affected by competence experiences (we call this the *self-regulating function*), whereas obsessive passion is strongly influenced by competence experiences when it is at elevated levels (which we call the *self-enhancing function*).

Complementing the dualistic model of passion with conservation of resources theory provides a new perspective on passion development that allows us to contribute to entrepreneurship literature and beyond in at least two ways. First, the present research provides a generalized conceptual lens to explain why passion is sometimes prone to change through competence experiences and entrepreneurs' passion sometimes remains resilient. Our main conceptual advancement in comparison to previous studies is that we show how one's existing level of passion functions as a resource influencing how positive and negative experiences are processed thereby determining whether passion changes. This research adds to the existing literature on the antecedents of passion (Gielnik et al., 2015; Mageau et al., 2009; Newman et al., 2021; Vallerand, 2015) by demonstrating that passion is a resource that influences its own development in combination with competence experiences.

Second, we show how entrepreneurs' harmonious and obsessive passion develop *differently* owing to the interplay between competence experiences and existing passion levels. This advances the research on the nature of obsessive and harmonious passion (De Mol et al., 2018; Vallerand, 2010; Vallerand et al., 2003) and provides a theoretical perspective on passion as a resource that builds itself. This theoretical perspective suggests that obsessive passion accumulates over time (up to a certain level) because of its self-enhancing effect. In contrast, harmonious passion balances with other life areas because of its self-regulating effect. This helps elucidate why obsessive but not harmonious passion typically overpowers other life areas (Bélanger et al., 2013b).

4.2 Theory and Hypotheses

The Passion-as-a-Resource Perspective: Complementing the Dualistic Model of Passion with Conservation of Resources Theory

The dualistic model of passion (Vallerand, 2015; Vallerand et al., 2003) posits that not all passions are created equally, but that there are two fundamentally different types of passion: harmonious and obsessive. Both types of passion emerge when individuals internalize specific activities. While harmonious passion results from autonomous internalization, obsessive passion is based on controlled internalization (Mageau et al., 2009; Vallerand et al., 2003). Harmonious passion is characterized by a free and flexible form of activity engagement, whereas obsessive passion features a constrained and pressured way of pursuing an activity (Vallerand, 2010, 2015).

Individuals with obsessive passion cannot exert control over their engagement in their passion activities, but are devoted to these activities because their self-esteem and mood depends on their ability to engage in them (Stroe, Wincent, et al., 2018; Vallerand et al., 2003, 2010). Thus, obsessive passion manifests as an overwhelming presence in individuals' lives, dominating over alternative goals and resulting in rigid persistence in the activities (Bélanger et al., 2013b; Vallerand et al., 2010). Considering the fundamental differences between harmonious and obsessive passion also helps us understand why the two types develop differently based on experiences encountered by entrepreneurs throughout their journey.

According to the conservation of resources theory (Hobfoll, 1989), resources are valued entities (personal, object, energy, and condition) that are crucial for an individual's goal achievement (Halbesleben et al., 2014; Hobfoll et al., 2018). Passion can be considered a resource because it is a key factor in entrepreneurs' goal achievement, ultimately making them more successful (Fisher et al., 2018; Zhao & Liu, 2023). Indeed, passion is related to increased entrepreneurial self-efficacy, persistence, and performance (Feng & Chen, 2020; Lex et al., 2022; Murnieks et al., 2014). Further, it can serve as an affect-regulator (Streeb et

al., 2022) and an internal energy reservoir that motivates individuals, sparks joy and excitement, and protects against energy depletion (De Clercq & Belausteguigoitia, 2019).

The conservation of resources theory further posits that individuals strive to acquire, protect, and retain resources. When entrepreneurs experience competence satisfaction, they acquire and retain knowledge, skills, and abilities that contribute to successful entrepreneurial endeavors. Such positive experiences can enhance passion by reinforcing a sense of mastery and control over domains (Vallerand, 2015), aligning with the conservation of resources theory, which emphasizes resource gain. Conversely, competence frustration experiences may signal a potential loss of resources. Entrepreneurs may perceive setbacks or failures as threats to their competence, triggering a heightened motivation to regain or protect these resources. This drive to recover lost competence could fuel passion and the determination to overcome challenges, but it may also lead to a decrease in passion and disengagement from entrepreneurial activities. Moreover, in the face of competence frustration, entrepreneurs may become more risk-averse and try to avoid further losses. However, this heightened loss aversion can reduce but also drive passion, as entrepreneurs strive to protect their existing resources and regain competence. Indeed, the fear of losing what they have achieved can motivate persistent and passionate efforts (Cacciotti et al., 2016).

The above theorizing points to potential ambiguities in the relationship between competence experiences and passion. Integrating the conservation of resources theory with the dualistic model of passion allows us to resolve this ambiguity. A central principle of the conservation of resources theory is that the development of resources depends on the current level of a given resource (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll et al., 2018). When we apply this logic to the passion domain it follows that the development of harmonious and obsessive passion depends on their current levels. However, the underlying processes of resource building and depletion should be different between harmonious and obsessive passion given their distinct nature (Mageau et al., 2009; Vallerand et al., 2003). We argue that

harmonious passion exerts a self-regulating function on its subsequent development because harmonious passion is characterized by a balance of life domains. An individual with harmonious passion freely and flexibly engages in their passion activity, capable of disengaging easily and transitioning to alternative activities (Bredehorst et al., 2023; Vallerand et al., 2014). Thus, there is a natural ceiling for the time and energy that an activity can take. Entrepreneurs with harmonious passion control their passion, meaning that passion-building can be autonomously regulated (Vallerand et al., 2003). In line with this, Bredehorst et al. (2023) proposed that individuals with harmonious passion purposefully detach and disrupt the automatic excessive building of passion. Thus, the building of passion resources should not blindly follow the principle that resources build themselves.

In contrast, we expect a self-enhancing function for obsessive passion, which implies that the higher the current obsessive passion level, the more it intensifies. Unlike harmonious passion, obsessive passion disproportionately dominates an individual's identity and life as contingencies are attached to the activity (Vallerand, 2010, 2015). Individuals with obsessive passion experience constant pressure to engage in their passion activities; thus, the passion controls the individuals (Vallerand et al., 2003). This is also in line with previous research that emphasizes the addictive and all-consuming tendencies of obsessive passion (Ratelle et al., 2004; Rip et al., 2006).

How Competence Satisfaction and Frustration Influence Harmonious Passion

The entrepreneurship context is rich in experiences of competence satisfaction *and* frustration, and both can occur simultaneously or at different intensities within short intervals (De Cock et al., 2020; Nikolaev et al., 2020; Schindehutte et al., 2006; Shepherd et al., 2009; Shir et al., 2019). Entrepreneurs progress and achieve goals during the entrepreneurial process, accompanied by experiences of competence satisfaction. However, the entrepreneurial process is challenging and uncertain and often compared to a roller-coaster ride (Cardon et al., 2013; De Cock et al., 2020; Schindehutte et al., 2006). During this

process, entrepreneurs frequently experience setbacks that imply that their competence is insufficient (Cope, 2003, 2011; Hayward et al., 2006; Shepherd et al., 2011).

Experiencing competence satisfaction signals that investing time and effort in an entrepreneurial activity is worthwhile. Entrepreneurs who successfully master required tasks and meet demands perceive their entrepreneurial activities as resonating with their capabilities (Vallerand, 2015). This prompts greater inclination toward the activities further stimulating their passion. Indeed, research has shown that passion is stimulated when individuals feel that they are at their best (Dubreuil et al., 2014; Forest et al., 2012). Successfully mastering an activity promotes the development of passion because individuals develop a passion for activities that resonate with their capabilities (Dubreuil et al., 2014; Forest et al., 2012; Vallerand et al., 2019). Thus, passion resources are developed through experiences of competence satisfaction.

Hypothesis 1a: Competence satisfaction is positively associated with harmonious passion.

Experiencing competence frustration signals that the required demands have not been met. This implies unsuccessful resource investment because energy and time investments do not create the expected return. The perceived value of the activity to the individual is likely to decrease (Vallerand, 2015). This increases the likelihood of detachment from the passion activity—particularly in the case of harmonious passion—facilitated by autonomous internalization (Vallerand et al., 2003). Harmonious passion is characterized by volitional and balanced engagement in the passion activity, where individuals maintain control over their passion (Bredehorst et al., 2023) and their self-esteem is not contingent on the passion activity (Vallerand, 2010, 2015; Vallerand et al., 2003). Thus, when engagement in entrepreneurial activities results in dissatisfying and unfavorable experiences such as competence frustration, entrepreneurs are likely to flexibly adapt their harmonious passion. Prior research corroborates this, indicating that need frustration—of which competence frustration and

increased work-related demands are key aspects—depletes harmonious passion (Tóth-Király et al., 2019; Trépanier et al., 2014). In summary, we argue that if entrepreneurs experience competence satisfaction, harmonious passion is built. In contrast, competence frustration leads to depletion of harmonious passion.

Hypothesis 1b: Competence frustration is negatively associated with harmonious passion.

How Competence Satisfaction and Frustration Influence Obsessive Passion

In contrast to harmonious passion, we predict that obsessive passion is built through competence satisfaction *and* frustration. Obsessive passion is based on contingent self-worth (Donahue et al., 2012; Vallerand et al., 2003); that is, individuals rely on the activity for self-definition (Mageau et al., 2009). When individuals experience competence satisfaction, it reaffirms their sense of self and creates or enhances positive self-image. This enhances the entrepreneur's identification with and dependence on the passionate activity. Generally, prior research has shown that need satisfaction, generated through engagement in an activity, fuels obsessive passion toward that activity (Johnson et al., 2022; Lalande et al., 2017).

Hypothesis 2a: Competence satisfaction is positively associated with obsessive passion.

We further argue that competence frustration enhances obsessive passion. Competence frustration signals that time and energy investments in the entrepreneurial activity are unsuccessful. However, the self-worth of individuals with obsessive passion is contingent on their performance in their passion activities (Bélangier et al., 2013a). When entrepreneurs realize that they cannot perform adequately in a central role that is important to them, they experience immense pressure to alleviate the feeling of failure, which is interpreted as a direct threat to their self-image. To decrease feelings of inadequacy and failure, entrepreneurs may focus excessively on their activities, trying harder, and pressuring themselves to regain a positive self-image. This compulsion and feelings of having to prove one's competence by

aggressively investing more time and energy in an activity are the underlying principles that fuel obsessive passion (Donahue et al., 2012; Philippe et al., 2010; Vallerand, 2010, 2015; Vallerand et al., 2003; Wang et al., 2011). Thus, entrepreneurs feel an urgent need to invest more time and energy and engage more intensively in their entrepreneurial activities, thereby further intensifying their obsessive passion (Bélanger et al., 2013a; Stroe, Wincent, et al., 2018). Additionally, need frustration has been shown to develop obsessive passion (Tóth-Király et al., 2019). Prior research suggested that feelings of failing to meet role-related demands adequately, which corresponds to experiencing competence frustration, drive obsessive, but not harmonious passion (Stroe, Wincent, et al., 2018; Trépanier et al., 2014). In summary, owing to the contingent self-worth and rigidity of obsessive passion, competence frustration may fuel obsessive passion.

Hypothesis 2b: Competence frustration is positively associated with obsessive passion.

The Self-Regulating Function of Harmonious Passion

We hypothesize that the effects of competence satisfaction and frustration on harmonious passion are moderated by the existing level of harmonious passion. Specifically, we argue that the positive effect of competence satisfaction and negative effect of competence frustration on harmonious passion are weaker when harmonious passion is elevated.

Therefore, harmonious passion has a self-regulatory effect on its accumulation or depletion.

Individuals with harmonious passion tend to have a variety of interests and passions, implying that there is a natural limit characteristic of harmonious passion (Vallerand, 2015; Vallerand et al., 2003, 2014). Maintaining a balance between life domains that exist harmoniously is a characteristic feature of harmonious passion. Thus, unlike obsessive passion, harmonious passion does not suppress alternative goals in other life domains (Bélanger et al., 2013b). Consequently, competence satisfaction, as a positive driving force of passion, can significantly intensify harmonious passion, particularly at lower levels until it reaches a threshold. When entrepreneurs experience competence satisfaction, their sense of

self is reaffirmed, leading to increased investments in time and energy and a heightened inclination toward their passion activities. However, this is only up to a certain point; a balance still exists with other (e.g., recovery) activities (Bredehorst et al., 2023), and the individual does not become dependent on the activity. We refer to this mechanism as the self-regulating effect of harmonious passion.

Furthermore, the negative effect of competence frustration on harmonious passion is expected to be weaker when the harmonious passion level is high. Having greater and higher-quality resources not only protects individuals from resource depletion but also facilitates more effective replenishment (Hobfoll, 2001; Hobfoll et al., 2018). When entrepreneurs experience competence frustration, it implies unsuccessful investment of resources. High harmonious passion indicates that entrepreneurs have more resources and opportunities to compensate for threats to their sense of self. Accordingly, the higher the harmonious passion level, the less vulnerable the individual is to resource depletion. To protect against resource loss, existing resources must be invested to offset the net loss (Halbesleben et al., 2014; Hobfoll, 1989), meaning that the effect is expected to be negative, albeit weaker.

Hypothesis 3a: An individual's current level of harmonious passion moderates the effect of competence satisfaction on the subsequent development of harmonious passion. The positive effect of competence satisfaction on harmonious passion is weaker (i.e., less positive) when current harmonious passion is high.

Hypothesis 3b: An individual's current level of harmonious passion moderates the effect of competence frustration on the subsequent development of harmonious passion. The negative effect of competence frustration on harmonious passion is weaker (i.e., less negative) when current harmonious passion is high.

The Self-Enhancing Function of Obsessive Passion

We propose that the extent of current obsessive passion moderates the effects of competence satisfaction and frustration on entrepreneurs' obsessive passion. However, we

argue that the underlying mechanisms differ from those associated with harmonious passion. In the case of obsessive passion, individuals are controlled by their passion. Individuals with obsessive passion constantly feel pressure to engage in their passion, which enhances its salience in their lives (Vallerand, 2015; Vallerand et al., 2003). Therefore, individuals with high obsessive passion become more receptive to external stimuli and experiences related to their passion activities. Accordingly, the self-confirmatory effect of competence satisfaction that fuels obsessive passion is more pronounced when obsessive passion is elevated.

Entrepreneurs with an intense obsessive passion are particularly affected by experiences that suggest they are not competent in their passion activities. Unlike harmonious passion, however, this does not lead to disengagement and a subsequent reduction of the obsessive passion. Instead, it intensifies the passion further owing to obsessive tendencies such as rumination and reduced mental flexibility (Curran et al., 2015; Donahue et al., 2012; Schellenberg et al., 2013; Thorgren et al., 2013). Entrepreneurs with obsessive passion focus more on the activity, pursuing it with greater obsession to overcome negative competence experiences. Therefore, we propose a *self-enhancing effect* associated with obsessive passion, aligning with the principle that resources build themselves. This implies that the influences of competence satisfaction and frustration are more pronounced when obsessive passion is high, leading to an upward accumulation process.

Hypothesis 4a: An individual's current level of obsessive passion moderates the effect of competence satisfaction on the subsequent development of obsessive passion. The positive effect of competence satisfaction on obsessive passion is stronger when obsessive passion is high.

Hypothesis 4b: An individual's current level of obsessive passion moderates the effect of competence frustration on the subsequent development of obsessive passion. The positive effect of competence frustration on obsessive passion is stronger when obsessive passion is high.

4.3 Methodology

Two Empirical Studies on the Role of Current Passion in the Development of Passion

We used a multi-study approach, including experimental and field data, to test our hypotheses. In Study 1, we collected data over seven consecutive weeks in a repeated-measurements field study with 209 entrepreneurs. This initial analysis tested the hypotheses in a natural environment, covering potential dynamic changes over time in our variables of interest and providing ecological validity. However, because we neither manipulated competence satisfaction nor frustration, self-selection biases or other endogeneity issues could not be ruled out. Therefore, in Study 2, we conducted a randomized experiment with 191 entrepreneurs in which we manipulated competence satisfaction and frustration to achieve higher internal validity and highlight the robustness of our results. In both studies, participants provided informed consent before they began. All analyses were conducted using statistical software R, version 4.3.1 (R Core Team, 2022).

Design and Participants

Study 1

We tested our hypotheses using a sample of German entrepreneurs. As our research questions center on within-person variations of psychological constructs, we used a repeated-measurement design. Such designs have been used frequently in entrepreneurship and psychology research to investigate short-term within-person variability (Bredehorst et al., 2023; Funken et al., 2020; Gielnik et al., 2020; Lex et al., 2022; Uy et al., 2010). The timeframe needed to be sufficiently long for passion to change and include sufficient measurement waves to observe how current passion levels influenced passion development. Therefore, the study included a baseline measurement (t_0) followed by an assessment period with seven weekly measurement waves (t_1 – t_7). We used the baseline survey to collect participants' demographic variables and baseline measures of the scales used during the weekly measurements.

We recruited our sample through two professional social networks—LinkedIn and Xing—using the keywords “(co-)founder,” “(female)founder,” and “Gründer:in.” We purposefully sampled entrepreneurs who founded and currently managed their own ventures (Weinberger et al., 2018; Zhu et al., 2021) and we invited 2,673 entrepreneurs via personalized message to participate in our study, of which 328 agreed to participate. Throughout the data collection period, two reminders were sent each week to encourage continuous participation. Despite some missing values, in total, we collected 1,640 observations from 273 entrepreneurs over seven weekly waves (averaging 6.01 observations per participant). We excluded participants if they provided fewer than three responses (Bledow et al., 2013; Ployhart & Vandenberg, 2010), had ventures older than 10 years (Cardon & Kirk, 2015; Engel et al., 2023; Hubner et al., 2020; McKelvie et al., 2018; Mueller et al., 2012), or failed careless response checks (attention checking and straight lining). We then created a data set with lagged variables resulting in our final sample of 209 participants, from whom we obtained 1,172 observations over six lagged measurement waves (5.61 per participant on average). In our final sample, 43% of the entrepreneurs were female, and the average age was 40 years (standard deviation [SD] = 10.9), with an age range of 18 to 65 years. We used two-sided Kolmogorov–Smirnov tests (Siegel, 1956) to detect potential differences between respondents and non-respondents in gender and education. Random samples ($n = 250$) were drawn from the list of contacted individuals and compared with the final participants. All tests showed non-significant results, indicating a negligible-to-low risk of non-response bias.

Study 2

The experimental design consisted of two questionnaires (pre- and post-manipulation) and entrepreneurial tasks that served as the basis for our manipulation. Similar to Study 1, we sampled entrepreneurs; however, this time using the Prolific platform to recruit our participants. All participants completed the experiment under the premise that their

entrepreneurial competencies were being assessed to evaluate their performance on crowd-working platforms, which served as a cover story to mask the true purpose of the experiment. In the experiment, participants actively engaged in entrepreneurial tasks reflecting different skills necessary for founding a startup, including identifying opportunities, dealing with uncertainties, budgeting, and implementing feedback (Ardichvili et al., 2003; Bhave, 1994; McMullen & Shepherd, 2006). Initially, participants were asked to generate ideas on potential business opportunities and develop them using a value-proposition canvas (Osterwalder et al., 2014). After generating an idea for a venture, several decision-making tasks were introduced, including decisions about the extent of market research (no, a little, or extensive market research), new business partners (work with a partner or alone), and investment options (invest in a marketing campaign or save for future purposes). After each decision, the participants received information that they could use to continue developing their business idea and the value proposition canvas. The participants then proceeded through different tasks along the entrepreneurial process. On average, participants spent 45.5 minutes working on the tasks.

We randomly assigned participants to either the competence-satisfaction, competence-frustration, or non-treatment control group (see Appendix B for examples of the manipulation in the conditions). To manipulate the participants' competence experience, evaluations of their decisions were provided to those in the experimental conditions. Specifically, the participants in the competence satisfaction group received positive evaluations ("good decision because expert entrepreneurs made a similar decision") whereas participants in the competence frustration group received a negative evaluation ("bad decision because expert entrepreneurs made a different decision"). Previous research has shown that such feedback can effectively manipulate people's perceptions of competence in various fields of study (Fransen et al., 2018; Kanat-Maymon et al., 2015; Sheldon & Filak, 2008).

In line with recent research (Kundro & Nurmohamed, 2021; Mikolon et al., 2021; Sitzmann & Campbell, 2021), we recruited entrepreneurs through the online platform Prolific Academic (<https://prolific.co>). We collected responses from 205 U.S.-based entrepreneurs, whose primary language was English. Each respondent received US\$11. Participants received an US\$8.80 base payment for participating. Additionally, we announced that if their decisions were rated within the top 20%, they would receive a bonus payment of US\$2.20 (this was part of the cover story—in fact, all participants received US\$11). From the 205 initial participants, 14 were excluded after failing one of the attention checks (10) and for missing data (4). Our final sample consisted of 191 entrepreneurs of whom 62 were in the competence-satisfaction treatment group, 68 were in the competence-frustration treatment group, and 61 were in the control group. Of the entrepreneurs, 82 were female and 109 were male. On average, the participants were 42 years old ($SD = 13.7$).

Measures

In both studies, all items were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). In Study 1, two trained researchers familiar with the field translated the items into German using a back-translation procedure (Brislin, 1970).

Harmonious and Obsessive Passion

In Study 1, we measured harmonious and obsessive passion using the dualistic model of passion (Vallerand et al., 2003). In the baseline questionnaire (t_0), we measured passion using Vallerand et al.'s (2003) passion scale with seven items each for harmonious and obsessive passion. To measure the participants' passion for the entrepreneurial activity, we adapted the scale to the entrepreneurship context by replacing “activity” in the original scale with “entrepreneurial activity” (Ho & Pollack, 2014; Stroe et al., 2020; Zhao & Liu, 2023). For our weekly measurements (t_1 – t_7), we followed prior studies with similar research designs and used shortened scales to ease the burden placed on participants (Bredehorst et al., 2023; Gielnik et al., 2020; Uy et al., 2010), ensuring measurements were focused on the current

work week. We measured harmonious and obsessive passion weekly with two items each. We selected the items based on their factor loadings in the baseline measurement and theoretical considerations to ensure they covered the aspects of control and being in harmony. The two weekly items for harmonious passion were “In the current work week, my entrepreneurial activity is in harmony with other activities in my life” and “In the current work week, my entrepreneurial activity is a passion that I still manage to control.” The two weekly items for obsessive passion were “In the current work week, I am having a hard time controlling my need for my entrepreneurial activity” and “In the current work week, I have almost an obsessive feeling about my entrepreneurial activity.” The mean across items was calculated. Cronbach’s alpha ranged from 0.56 to 0.75 for harmonious passion and from 0.72 to 0.83 for obsessive passion over the seven measurement waves (see Appendix B).

In Study 2, we measured harmonious and obsessive passion twice: first, at the beginning of the experiment, and second after the manipulation to assess the resulting changes in passion. Following prior research, we used shortened scales, consisting of three items each, to reduce the participants’ burden (e.g., Bredehorst et al., 2023). We selected the items consistent with those of Study 1. In line with Study 1 and following prior research (Ho & Pollack, 2014; Stroe et al., 2020; Zhao & Liu, 2023), we adapted the scale to the entrepreneurship context by replacing “activity” in the original scale with “entrepreneurial activity.” When introducing the items for the second measurement to participants, we added the time specification “in the last hour” to ensure that the measure precisely captured the passion participants experienced during the experiment. One example item for harmonious passion was “My entrepreneurial activities are in harmony with the other activities in my life.” An example of an obsessive passion measurement item was “I have almost an obsessive feeling for my entrepreneurial activities” (see Appendix B). We calculated the means to form our scales. Cronbach’s alpha values were 0.67 (t1) and 0.77 (t2) for harmonious passion and 0.77 (t1) and 0.85 (t2) for obsessive passion.

Competence Satisfaction and Frustration

In Studies 1 and 2, we measured competence satisfaction and frustration using two items for each construct based on diary measures of the Basic Need Satisfaction and Frustration Scale (Van der Kaap-Deeder et al., 2020). In Study 2, this measure served as a manipulation check to validate that the competence satisfaction/frustration manipulation worked as intended. We adapted the scale to the entrepreneurial context by adding the specification “entrepreneurial.” We added the time indicators “in the current work week” (Study 1) or “in the last hour” (Study 2). The two items measuring competence satisfaction were “In the current work week/last hour, I feel confident that I can do things related to my entrepreneurial activity well” and “In the current work week/last hour, I feel competent to achieve my entrepreneurial goals.” The two items measuring competence frustration were “In the current work week/last hour, I am disappointed with many of my entrepreneurial accomplishments” and “In the current work week/last hour, I feel insecure about my entrepreneurial abilities.” In Study 1, Cronbach’s alpha ranged from 0.76 to 0.87 for competence satisfaction and from 0.66 to 0.82 for competence frustration over the seven measurement waves (see Appendix B). In Study 2, Cronbach’s alpha was 0.97 for competence satisfaction and 0.87 for competence frustration (see Appendix B).

Control Variables

In both studies, we controlled for gender (1 = female, 0 = male), age, and company age, because of their effects in the entrepreneurial context (Davidsson & Honig, 2003; Murnieks, Cardon, et al., 2020). In Study 1, we included a count for the measurement waves (t1–t7) in the analytical models to control for trend effects.

Analysis

Study 1

In Study 1, we used repeated measures nested within individuals over seven consecutive weeks. To account for dependency in our data, we employed random coefficient

modeling (Bliese & Ployhart, 2002; Holcomb et al., 2010). We allowed the intercepts to vary randomly across individuals and included the measurement wave as a random slope. We report conditional and marginal R^2 statistics of the explained variance (Nakagawa & Schielzeth, 2013).

Our lagged data structure allowed us to include the dependent variable from the previous measurement wave to control for autoregression and thus model change in our dependent variable (Funken et al., 2020; Lex et al., 2022). We were interested in how an individual's competence satisfaction or frustration predicts changes in passion. Therefore, we centered our predictor variables on the person-mean to extract within-person effects (Enders & Tofighi, 2007; Gielnik et al., 2015). The study design, hypotheses, and analysis plan were preregistered (see https://osf.io/9543f/?view_only=575f8f545e6043dbaa551dd805a205c8).

Study 2

In Study 2, we used ordinary least squares regression to test our hypotheses and included the pre-manipulation measures of harmonious and obsessive passion as moderator variables. We z-standardized the moderator variables to facilitate interpretation of the interaction effects. We tested whether our random assignment to the three conditions was successful by calculating univariate ANOVAs with the experimental condition as the independent variable and demographic variables (age, gender, and education) and the pre-manipulation measures of harmonious and obsessive passion as dependent variables. We did not observe any significant effects, indicating that randomization was successful. T-tests were used to determine whether the manipulations were successful. The participants in the competence-frustration treatment group experienced significantly higher competence frustration ($M = 2.84$) than those in the other two conditions ($M = 1.66$, $t = 6.72$, $p < .0001$), whereas the participants in the competence-satisfaction treatment group reported significantly higher competence satisfaction ($M = 4.52$) than those in the other two conditions ($M = 4.04$, $t = 4.05$, $p < .0001$).

4.4 Results

Tables 9 and 10 present the descriptive statistics and correlations for Studies 1 and 2. All correlations were below 0.7 (Anderson et al., 2008). The variance inflation factor scores for our models were below 2.5. These metrics indicate that multicollinearity was not a major concern (O'Brien, 2007).

Table 9. Descriptive statistics of field study

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Age	39.71	10.92						
2. Gender ^a	0.43	0.50	.07					
3. Company age	2.90	2.23	.30**	.05				
4. Harmonious passion ^b	3.73	0.58	.17*	-.02	.04			
5. Obsessive passion ^b	2.16	0.75	-.23**	-.09	-.10	-.55**		
6. Competence satisfaction ^b	3.93	0.52	.05	-.10	-.03	.38**	-.01	
7. Competence frustration ^b	1.90	0.56	-.16*	.16*	-.08	-.35**	.20**	-.61**

Note. Number of participants = 209; *M* = mean; *SD* = standard deviation; ^a1 = female, 0 = male; ^baggregated across measurement waves; **p* < 0.05; ***p* < 0.01.

Table 10. Descriptive statistics of experimental study

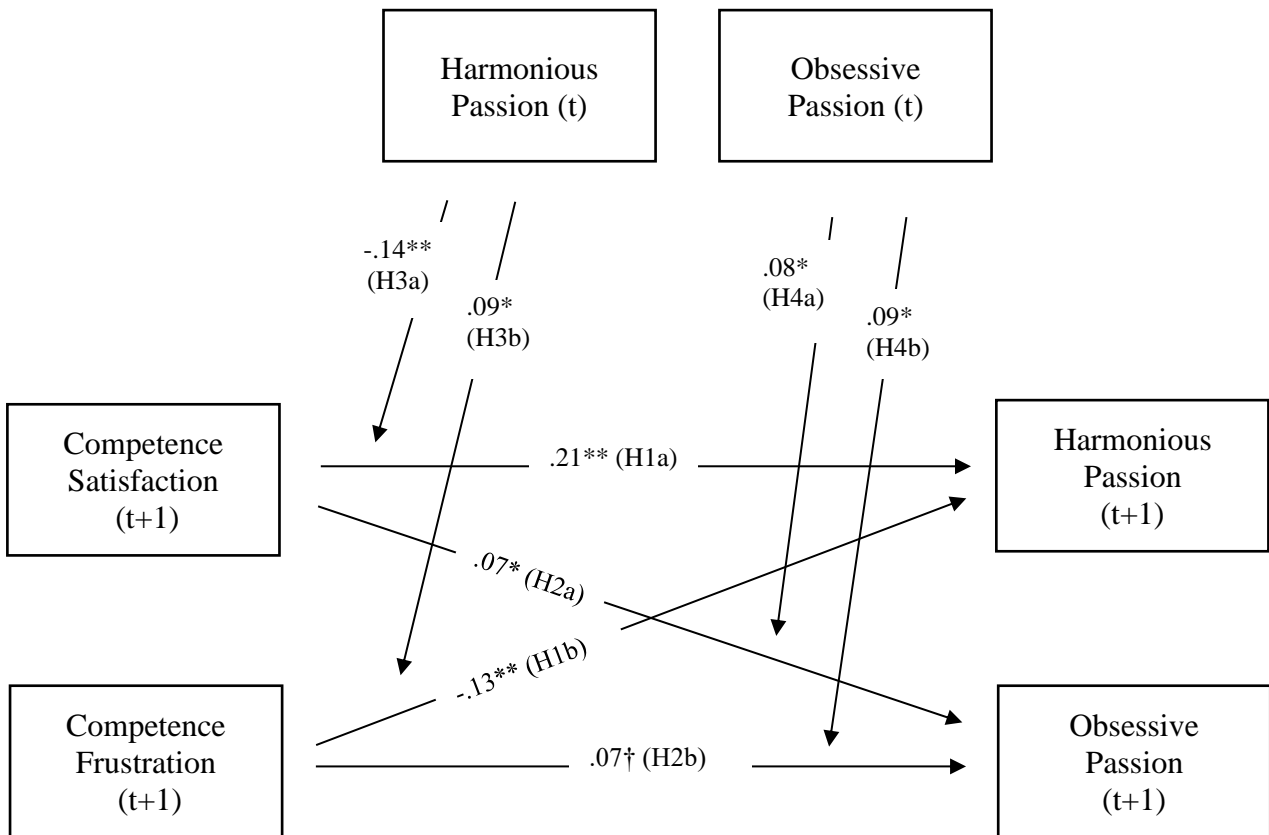
Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Age	41.72	13.73							
2. Gender ^a	0.43	0.50	.28**						
3. Company age	7.74	9.55	.08	-.08					
4. Harmonious passion (t1)	4.36	0.51	.07	.01	-.03				
5. Obsessive passion (t1)	3.25	0.95	.03	-.08	.05	.15*			
6. Harmonious passion (t2)	4.08	0.81	.10	-.04	.06	.48**	.12		
7. Obsessive passion (t2)	3.03	1.04	-.08	-.13	.00	.07	.79**	.16*	
8. Competence satisfaction ^b	0.50	0.50	.03	.12	.07	.15	.07	.21*	.02
9. Competence frustration ^c	0.53	0.50	.08	.08	-.04	.07	-.04	-.23**	-.08

Note. Number of participants = 191; *M* = Mean; *SD* = standard deviation; ^a1 = female, 0 = male; t1 = pre-treatment measurement; t2 = post-treatment measurement; ^b1 = Competence satisfaction; 0 = Control; ^c1 = Competence frustration; 0 = Control; **p* < 0.05; ***p* < 0.01

In Study 1, we investigated the proportion of between- and within-person variance. We used a null model with a random intercept and found that 61% of the total variance in harmonious passion was within-person. For obsessive passion, the within-person variance was 42%. Of the total variance, 64% was within-person for competence satisfaction and 57% was within-person variance for competence frustration. These results show considerable variance within individuals.

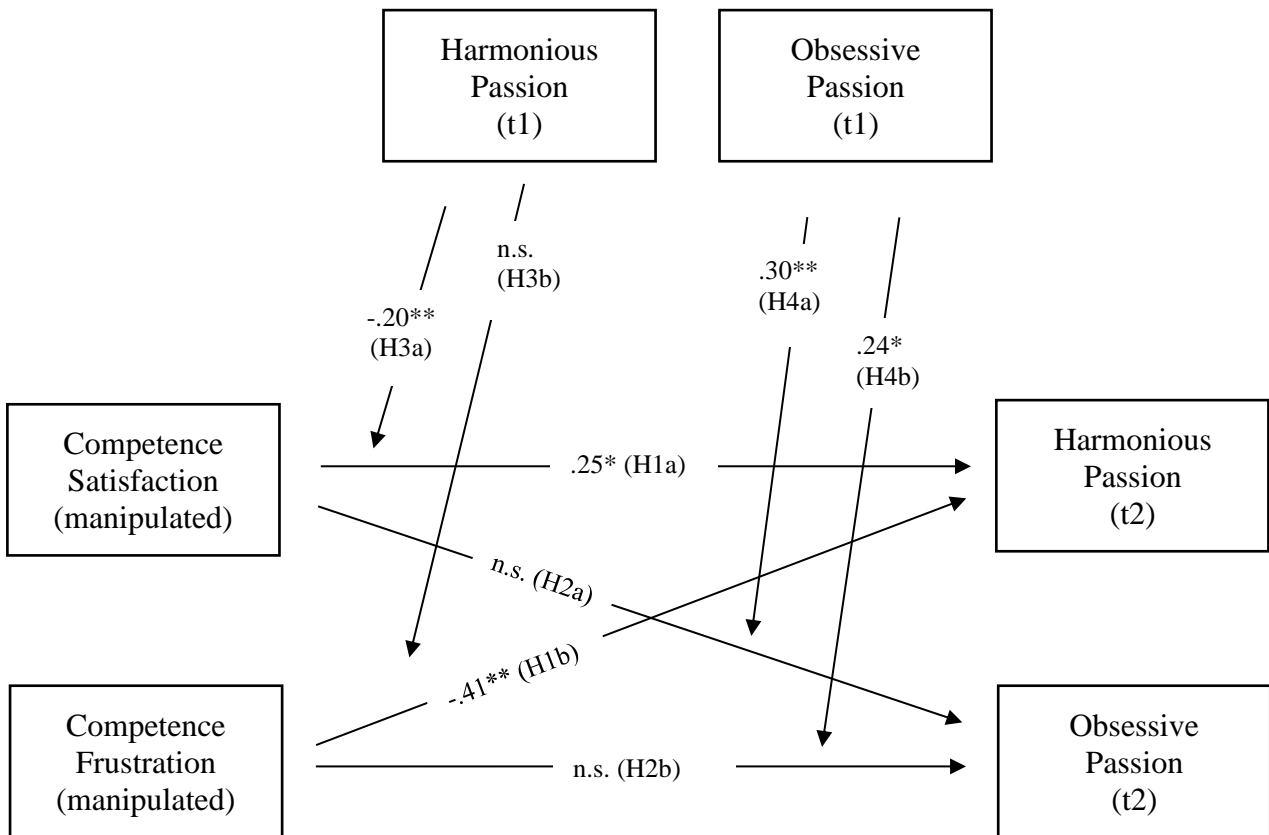
Hypotheses Testing

Table 11 provides an overview of the results of Studies 1 and 2. Figure 6 shows our theoretical model and the effects for Study 1. Table 12 presents the regression results. Figure 7 and Table 13 show the results of Study 2.



Note. $\dagger p < .10$; $*p < .05$; $**p < .01$.

Figure 6. Field study results on passion development



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

Figure 7. Experimental results on passion development

Table 11. Overview of hypotheses and results on passion development

Hypotheses	Study 1 (Repeated measures)	Study 2 (Experiment)
Hypothesis 1a: Competence satisfaction is positively associated with harmonious passion.	Supported	Supported
Hypothesis 1b: Competence frustration is negatively associated with harmonious passion.	Supported	Supported
Hypothesis 2a: Competence satisfaction is positively associated with obsessive passion.	Supported	Not supported
Hypothesis 2b: Competence frustration is positively associated with obsessive passion.	Marginally supported	Not supported
Hypothesis 3a: The positive effect of competence satisfaction on harmonious passion is stronger when the harmonious passion level is low.	Supported	Supported
Hypothesis 3b: The negative effect of competence frustration on harmonious passion is weaker (i.e. less negative) when the harmonious passion level is high.	Supported	Not supported
Hypothesis 4a: The positive effect of competence satisfaction is stronger when the obsessive passion level is high.	Supported	Supported
Hypothesis 4b: The positive effect of competence frustration is stronger when the obsessive passion level is high.	Supported	Supported

Table 12. Results of field study showing how competence satisfaction and competence frustration drive passion

Variable	Harmonious passion (t+1)									Obsessive passion (t+1)								
	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>	b	SE	<i>p</i>
Measurement wave	0.00	(0.01)	0.747	0.00	(0.01)	0.741	0.00	(0.01)	0.726	0.01	(0.01)	0.450	0.01	(0.01)	0.532	0.01	(0.01)	0.393
Gender ^a	-0.03	(0.07)	0.634	-0.04	(0.07)	0.613	-0.04	(0.07)	0.611	-0.12	(0.10)	0.209	-0.12	(0.09)	0.196	-0.12	(0.10)	0.204
Age	0.01	(0.00)	0.016	0.01	(0.00)	0.012	0.01	(0.00)	0.013	-0.01	(0.00)	0.002	-0.01	(0.00)	0.002	-0.01	(0.00)	0.001
Company age	0.00	(0.02)	0.919	0.00	(0.02)	0.822	0.00	(0.02)	0.923	-0.02	(0.02)	0.459	-0.02	(0.02)	0.462	-0.02	(0.02)	0.455
Harmonious passion (t)	0.13	(0.03)	<0.001	0.13	(0.03)	<0.001	0.12	(0.03)	<0.001									
Competence satisfaction (pc t+1)	0.21	(0.04)	<0.001	0.72	(0.15)	<0.001	0.21	(0.04)	<0.001	0.07	(0.04)	0.048	-0.09	(0.08)	0.269	0.07	(0.04)	0.078
Competence frustration (pc t+1)	-0.13	(0.04)	0.001	-0.13	(0.04)	0.001	-0.44	(0.15)	0.003	0.07	(0.04)	0.056	0.07	(0.04)	0.060	-0.12	(0.09)	0.191
Competence satisfaction (pc t+1) × Harmonious passion (t)				-0.14	(0.04)	<0.001												
Competence frustration (pc t+1) × Harmonious passion (t)							0.09	(0.04)	0.030									
Obsessive passion (t)										0.10	(0.03)	<0.001	0.11	(0.03)	<0.001	0.08	(0.03)	0.007
Competence satisfaction (pc t+1) × Obsessive passion (t)													0.08	(0.04)	0.028			
Competence frustration (pc t+1) × Obsessive passion (t)																0.09	(0.04)	0.021
Marginal R ² / Conditional R ²	0.073 / 0.361			0.084 / 0.363			0.077 / 0.361			0.066 / 0.559			0.071 / 0.553			0.065 / 0.573		
log-likelihood	-1199.619			-1195.285			-1199.556			-1221.727			-1221.694			-1221.443		

Note. Standard errors reported in parentheses. ^a1 = female, 0 = male; b = unstandardized beta coefficients; number of participants: n = 209; number of lagged observations: n = 1,172; t = measurement wave; pc = person-centered predictor/within persons.

Table 13. Experimental results for how competence satisfaction and competence frustration drive passion

Variable	Harmonious passion (t2)												Obsessive passion (t2)											
	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7			Model 8		
	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p	b	SE	p
Age	0.00	0.00	0.711	-0.00	0.00	0.595	0.01	0.01	0.030	0.01	0.00	0.010	0.00	0.01	0.657	-0.00	0.00	0.234	-0.00	0.01	0.609	-0.00	0.00	0.382
Gender ^a	-0.07	0.11	0.536	0.01	0.08	0.923	-0.20	0.16	0.215	-0.20	0.14	0.157	-0.34	0.19	0.077	-0.18	0.12	0.140	-0.46	0.19	0.018	-0.24	0.13	0.061
Company age	-0.00	0.01	0.402	-0.00	0.00	0.943	0.00	0.01	0.837	0.01	0.01	0.240	-0.01	0.01	0.295	-0.01	0.01	0.075	0.01	0.01	0.458	0.00	0.01	0.502
Competence satisfaction	0.25	0.10	0.016	0.13	0.08	0.108							0.10	0.18	0.601	-0.04	0.11	0.732						
Competence frustration							-0.41	0.15	0.008	-0.47	0.13	<0.001							-0.11	0.18	0.537	-0.06	0.11	0.577
Harmonious passion ^d (t1)				0.46	0.05	<0.001				0.48	0.09	<0.001												
Obsessive passion ^d (t1)															0.65	0.08	<0.001					0.63	0.09	<0.001
Competence satisfaction x harmonious passion (t1) ^d				-0.20	0.08	0.008																		
Competence frustration x harmonious passion (t1) ^d										-0.02	0.13	0.876												
Competence satisfaction x obsessive passion (t1) ^d															0.30	0.11	0.009							
Competence frustration x obsessive passion (t1) ^d																						0.24	0.12	0.041
R ² / R ² adjusted	0.052 / 0.020			0.488 / 0.462			0.090 / 0.061			0.350 / 0.318			0.033 / 0.000			0.658 / 0.641			0.073 / 0.043			0.631 / 0.613		
Δ R ²				0.436						0.260						0.626						0.558		

Note. Number of participants = 191; M = Mean; SE = standard error; ^a1 = female, 0 = male; t1 = pre-treatment measurement; t2 = post-treatment measurement; The effects of competence satisfaction and frustration are calculated against the control group; ^d z standardized variable

Hypothesis 1a posits that competence satisfaction is positively associated with harmonious passion. Table 12 (Model 1) shows a significant positive effect ($b = 0.21, p < .001, 95\% \text{ CI } [.131, .283]$) in Study 1. In addition to the supporting evidence from Study 1, the results of Study 2 (Table 13 [Model 1]) show a significant positive effect of competence satisfaction on post-manipulation harmonious passion ($b = 0.25, p = .016, 95\% \text{ CI } [.048, .458]$). These results support Hypothesis 1a. Hypothesis 1b proposes, that competence frustration is negatively associated with harmonious passion. As shown in Table 12 (Model 1), a significant negative effect ($b = -0.13, p = .001, 95\% \text{ CI } [-.206, -.050]$) was observed in Study 1. As shown in Table 13 (Model 3), evidence from Study 2 suggests that competence frustration depletes post-manipulation harmonious passion ($b = -0.41, p = .008, 95\% \text{ CI } [-.703, -.108]$), supporting Hypothesis 1b. Hypothesis 2a posits that competence satisfaction is positively associated with obsessive passion. As presented in Table 12 (Model 4), the results of Study 1 indicate that the effect is positive and significant ($b = 0.07, p = .048, 95\% \text{ CI } [.001, .147]$), supporting Hypothesis 2a. In contrast to Study 1, which provided support for the direct effect, the results of Study 2, as presented in Table 13 (Model 5), show a non-significant relationship ($b = 0.10, p = .601, 95\% \text{ CI } [-.265, .455]$). Hypothesis 2b proposes, that competence frustration is positively associated with obsessive passion. As shown in Table 12 (Model 4), the effect is positive and marginally significant ($b = 0.07, p = .056, 90\% \text{ CI } [.010, .136]$). Thus, evidence from Study 1 marginally supports Hypothesis 2b. However, the results of Study 2, as shown in Table 13 (Model 7), do not support Hypothesis 2b ($b = -0.11, p = .537, 95\% \text{ CI } [-.461, .241]$).

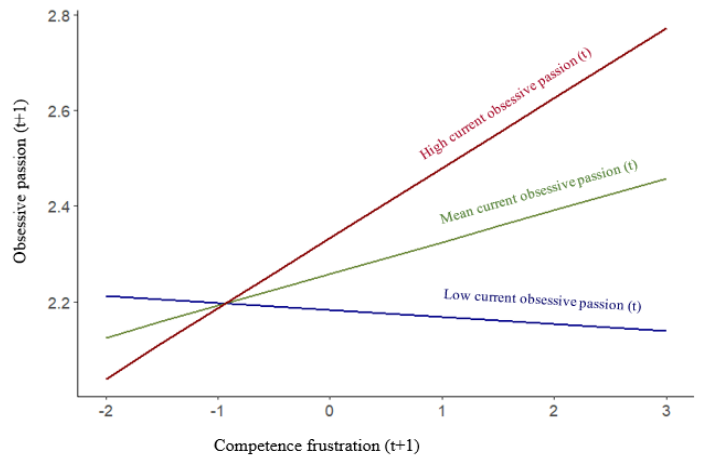
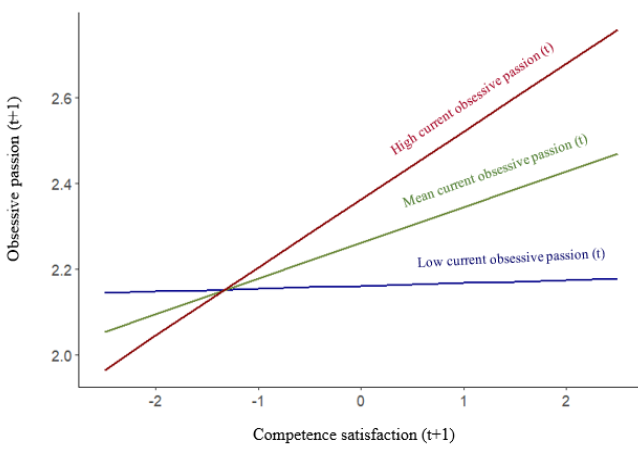
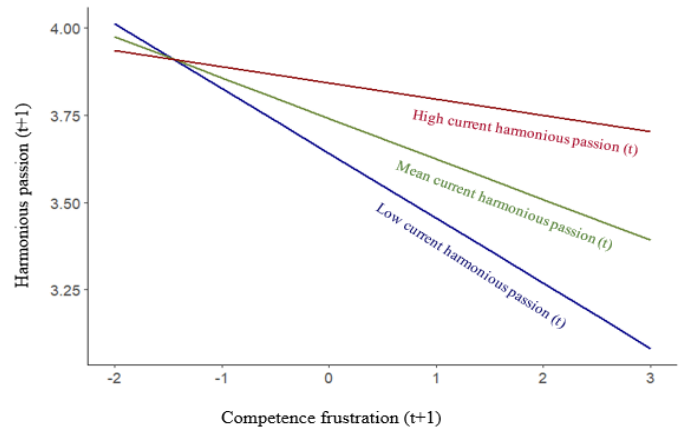
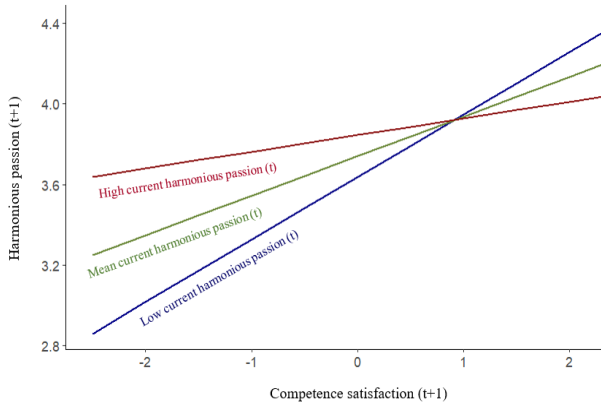


Figure 8. Field study moderation plots

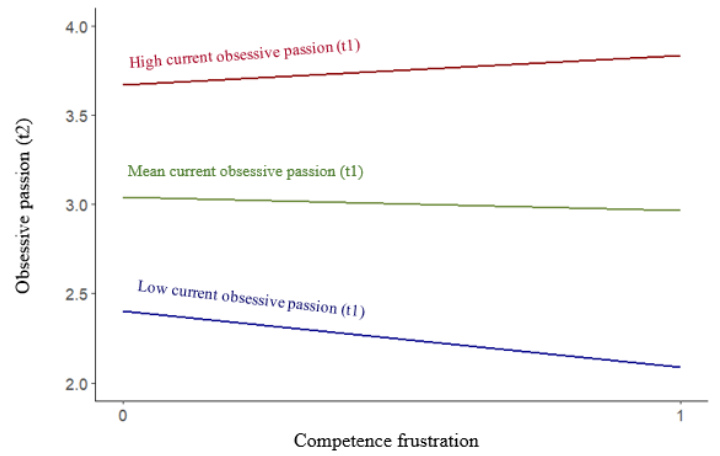
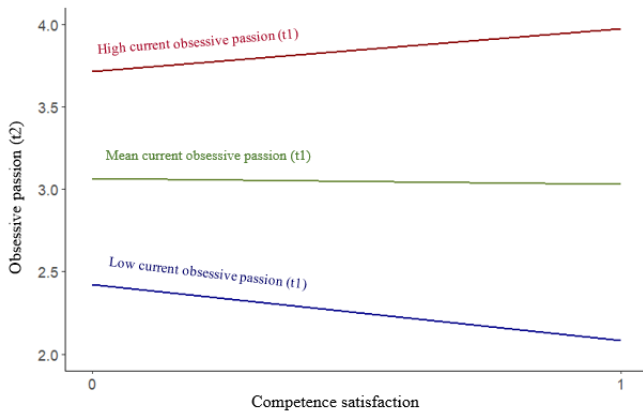
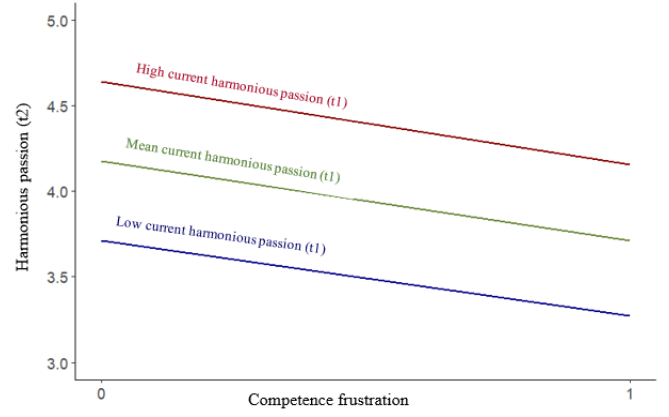
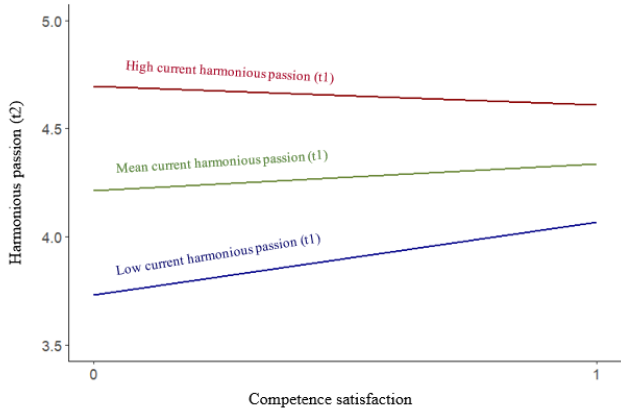


Figure 9. Experimental study moderation plots

Hypotheses 3 and 4 address the moderating effects of an entrepreneur's current harmonious and obsessive passion, and thus their potential to regulate the hypothesized mechanisms. To advance the interpretation, we plotted all significant interaction effects and calculated simple slope tests. Hypothesis 3a proposes that an entrepreneur's current harmonious passion level moderates the effect of competence satisfaction on harmonious passion development. The results of Study 1, as shown in Table 12 (Model 2), indicate that the interaction effect was significant ($b = -0.14$, $p = < .001$, 95% CI [-.216, -.065]), supporting Hypothesis 3a. As shown in Table 13 (Model 2), the results of Study 2 are similar and support Hypothesis 3a ($b = -0.20$, $p = .008$, 95% CI [-.352, -.054]). Figure 8 depicts the results of Study 1 and shows that the slope is steeper for lower values of current harmonious passion. Simple slope analysis revealed a positive and significant outcome for low values (-1 SD below the mean) of harmonious passion ($b = 0.31$, $p = < .00$, 95% CI [.218, .407]). For high values (+1 SD above the mean) of harmonious passion, the slope is insignificant ($b = 0.84$, $p = .102$, 95% CI [-.017, .184]). The results of Study 2 presented in Figure 9 show the same mechanism as that found in Study 1. The slope of competence satisfaction is positive and significant for low levels (-1 SD below the mean) of harmonious passion (t1) ($b = 0.336$, $p = .003$, 95% CI [.120, .553]) but it is insignificant for high levels (+1 SD above the mean) of harmonious passion (t1) ($b = -0.09$, $p = .437$, 95% CI [-.309, .134]).

Hypothesis 3b proposes that an individual's current harmonious passion level moderates the effect of competence frustration on harmonious passion development. The results in Table 12 (Model 3) indicate a significant interaction effect ($b = 0.09$, $p = .030$, 95% CI [.008, .163]). Thus, the evidence from Study 1 supports Hypothesis 3b. Figure 8 shows that the effect of competence frustration is less negative at low levels of harmonious passion. Simple slope analysis reveals that low levels of harmonious passion (-1 SD below the mean) result in a negative and significant slope ($b = -0.19$, $p = < .001$, 95% CI [-.281, -.093]). For high levels (+ 1 SD above the mean) of harmonious passion, the slope is insignificant ($b = -$

0.05, $p = .387$, 95% CI [-.154, .060]). Contrary to the support found in Study 1, the results of Study 2 in Table 13 (Model 4) are not significant ($b = -0.02$, $p = .876$, 95% CI [-.287, .245]). Thus, Study 2 does not provide evidence to support Hypothesis 3b.

Hypothesis 4a posits that an individual's current level of obsessive passion moderates the effect of competence satisfaction on obsessive passion development. Figures 8 and 9 present moderation graphs. The results from Study 1 in Table 12 (Model 5) show a significant interaction effect ($b = 0.08$, $p = .028$, 95% CI [.009, .156]), supporting Hypothesis 4a. Figure 8 shows a steeper positive slope for high levels of obsessive passion in Study 1. Simple slope analysis reveals an insignificant slope for low levels (-1 SD below the mean) of obsessive passion ($b = 0.01$, $p = .879$, CI [-.087, .102]); however, the slope is positive and significant for high levels (+1 SD above the mean) of obsessive passion ($b = 0.16$, $p = .003$, 95% CI [.054, .265]). The results of Study 2 are consistent. The results in Table 13 (Model 6) show a significant positive moderating effect ($b = 0.30$, $p = .009$, 95% CI [.075, .521]). Figure 9 shows the corresponding simple slopes. In Study 2, for low levels of obsessive passion (t1) (-1 SD below the mean), the slope is negative and significant ($b = -0.32$, $p = .041$, 95% CI [-.620, -.012]) and for high levels of obsessive passion (t1) (+1 SD above the mean), the slope is positive and marginally significant ($b = 0.27$, $p = .090$, 95% CI [-.043, .583]), aligning with the significant results observed in Study 1. Overall, Study 2 provides additional support for Hypothesis 4a.

Hypothesis 4b proposes that an entrepreneur's current obsessive passion level moderates the effect of competence frustration on obsessive passion development. Table 12 (Model 6) shows a significant interaction effect ($b = 0.09$, $p = .021$, 95% CI [.013, .161]). Thus, Hypothesis 4b is supported. Figure 8 substantiates this finding by showing a positive slope for high levels of obsessive passion and a negative slope for low values. The slope is insignificant for low levels (-1 SD below the mean) of obsessive passion ($b = -0.01$, $p = .807$, 95% CI [-.119, .092]), but positive and significant for high levels (+1 SD above the mean) of

obsessive passion ($b = 0.15$, $p = .003$, 95% CI [.050, .244]). Highlighting the robustness of the results of Study 1, Study 2 reveals a positive significant moderation effect, as shown in Table 13 (Model 8: $b = 0.24$, $p = .041$, 95% CI [.010, .466]). Thus, Hypothesis 4b is supported. Figure 9 presents simple slope graphs. Although the overall moderation effect is consistent with that observed in Study 1, simple slope analyses show a slightly divergent perspective. Contrary to Study 1, the slope is marginally significant for low levels (-1 SD below the mean) of obsessive passion (t_1) ($b = -.32$, $p = .054$, 95% CI [-.636, .005]), but insignificant for high levels (+1 SD above the mean) ($b = 0.16$, $p = .316$, 95% CI [-.157, .482]).

In summary, our results show high robustness across both studies. Based on experimental evidence, we are confident about the strengths of the conclusions we have drawn regarding the mechanisms that enhance and deplete passion as a resource. The results of both studies emphasize competence satisfaction and frustration experiences as drivers of passion. Moreover, our results highlight the importance of current passion levels in understanding ongoing passion development. Given that some direct effects do not show significant results, the effects only become salient when including current passion levels to reveal the specific mechanisms. Accordingly, our results indicate that current passion levels moderate the effects of competence experiences on passion development.

4.5 Discussion and Implications

In this study, we combine the dualistic model of passion with the conservation of resources theory to present a passion-as-a-resource perspective on the development of passion over time. Specifically, the theoretical model suggests that three factors are particularly relevant to understand the development of passion over time: competence experiences in terms of competence satisfaction and frustration, the current level of passion, and the type of passion (i.e., harmonious or obsessive). Based on our theorizing, we hypothesized a self-regulating effect for harmonious passion and a self-enhancing effect for obsessive passion.

We used a multi-method approach including a field study over seven weeks and a randomized experiment to test our model. The results provided support for the theoretical model.

Our results show that competence satisfaction and frustration have different effects on harmonious and obsessive passion and that these effects are contingent upon an entrepreneur's current passion level. Low levels of harmonious passion make entrepreneurs more vulnerable to resource depletion through competence frustration, whereas they foster resource accumulation through competence satisfaction. This reflects the self-regulating force inherent in harmonious passion, which is characterized by a natural boundary and equilibrium with other life areas. Conversely, reflecting the all-consuming, overpowering, and excessive nature of obsessive passion, the higher the current level of obsessive passion, the more it is built up through competence satisfaction and frustration. This suggests a self-enhancing effect for obsessive passion. Interestingly, in the case of low obsessive passion, competence satisfaction and frustration might have minimal or diminishing effects on its intensity. In other words, the building and depletion mechanisms of passion must be considered in light of current passion endowment.

Our contributions to the literature are multifaceted. First, by combining the dualistic model of passion with the conservation of resources theory, we provide a new theoretical perspective that views passion through a resource lens to understand its development. The passion-as-a-resource perspective goes beyond existing theoretical frameworks describing the development of passion in entrepreneurship over time (Collewaert et al., 2016; Gielnik et al., 2015; Kakarika et al., 2022; Lex et al., 2022; Murnieks, Cardon, et al., 2020). By regarding passion as a resource (De Clercq & Belausteguigoitia, 2019; Stevenson et al., 2023), we explain the mechanisms by which passion is built and depleted and establish competence satisfaction and frustration as its antecedents, which exert their influence based on both the level and type of passion. Our resource perspective also advances our understanding of why entrepreneurs show considerable heterogeneity in reacting to competence experiences and

why passion sometimes fades or persists over time (Bredehorst et al., 2023; Collewaert et al., 2016). While most individuals turn away from an activity after encountering frustrating competence experiences (Deci et al., 2017), some entrepreneurs do not disengage, but excessively commit to their entrepreneurial projects (Berends et al., 2021; Markman et al., 2005; McCarthy et al., 1993). Our model allows us to explain these differences through the self-regulating and self-enhancing functions of harmonious and obsessive passion and highlights the roles of the current level and type of passion in processing competence satisfaction and frustration experiences.

Second, we add to existing theoretical frameworks of harmonious and obsessive passion by providing a comprehensive analysis of the similarities and differences in their development over time (Carpentier & Mageau, 2019; Lalande et al., 2017; Mageau et al., 2009; Vallerand, 2015; Vallerand et al., 2014). Our results suggest that they are both driven by competence satisfaction experiences. However, while harmonious passion demonstrates a self-regulating function, allowing for balanced regulation of competence experiences, obsessive passion—because of its self-enhancing function—leads passionate entrepreneurs to intensify their focus on their entrepreneurial activities. This further fuels their obsessive passion, regardless of whether they experience competence satisfaction or frustration. We thus offer a theoretical explanation for why competence frustration can trigger responses—such as rigid behavioral patterns—that reflect obsessive passion, whereas harmonious passion remains in balance with other life areas despite continuous experiences of competence satisfaction.

In addition to these main contributions, our study also offers theoretical and conceptual implications for research streams beyond exploring passion in isolation. We add to the literature on the resource gain and depletion processes (Fredrickson, 2001; Fredrickson & Joiner, 2002; Halbesleben et al., 2014; Hobfoll et al., 2018; Llorens et al., 2007; Mäkikangas et al., 2010; Xanthopoulou et al., 2009). This field has long focused on the depletion of

resources related to stress and risk of burnout (Demerouti & Bakker, 2011; Lee & Ashforth, 1996; Swider & Zimmerman, 2010). We introduce passion as a resource and provide insights into both resource-building and -depletion mechanisms. We provide empirical evidence for the principle that the current resource endowment determines resource-building and -depleting mechanisms by showing how an individual's current resource level influences the effects of the two building and depleting factors—competence satisfaction and frustration. Intriguingly, our results suggest that not all resources seem to follow the principle of unlimited upward accumulation (i.e., resources build themselves). This suggests that there are boundary conditions for the effects of resource development, differing depending on the type of resource. We suggest that a detailed differentiation of the types of resources might help us understand their uniqueness.

4.6 Limitations, and Avenues for Future Research

Strengths of our study include the repeated measurements design and the high involvement level in a 50-minute experimental design. We provided ecological validity by measuring phenomena in entrepreneurs' natural environments as well as internal validity by conducting a controlled experiment. However, the results of this study should be considered in light of some limitations. First, our sample consisted of Western entrepreneurs (n = 209 German and n= 191 U.S.), which raises the question of whether the results can be generalized to other cultural contexts. Developing economies are particularly important for understanding business creation; however, they have been relatively understudied (Bruton, 2010; Reynolds, 2012). Another strength of our study is the multi-method approach and collection of data from two countries. We applied careful sampling procedures. In the experience-sampling study, we invited entrepreneurs to participate, resulting in a sample size (1,172 observations from 209 German entrepreneurs) that can be considered as relatively large compared to other studies

that have used similar designs (Gabriel et al., 2019; Uy et al., 2010). In the experiment, we selected U.S.-based entrepreneurs, who speak English as their primary language to participate.

Second, we relied on self-reports to measure our variables, which may have increased the risk of common method variance (Podsakoff et al., 2003). However, we were interested in the psychological mechanisms underlying the development of passion over time. In particular, competence satisfaction and frustration may differ subjectively; therefore, collecting self-reported data seemed appropriate. Furthermore, we controlled for the preceding level of the dependent variable in Study 1 to rule out constant sources of common method variance (Antonakis et al., 2010; Spector, 2006).

One primary premise of the conservation of resources theory is that resources travel in caravans; that is, resources tend to occur together because specific environments nurture the development of resource bundles, whereas others do not (Hobfoll et al., 2018). We consider it important for further research to holistically investigate ecological environments to gain a more comprehensive understanding of the factors that build passion. These factors constitute resources that typically accompany and intertwine with passion. Insights from this type of research would be valuable for developing entrepreneurial education programs that can optimally nurture the resources needed for success during an entrepreneurial journey. We did not state any definitive numerical size for measuring the level of a resource (Demerouti & Bakker, 2011). It would be interesting to identify what comprises a high- or low-endowment resource level and then investigate the critical cutoff values for resource endowment that lead to functional or dysfunctional consequences. That is, it would be interesting to investigate whether there is a “too much of a good thing” effect for passion (Hobfoll, 2002). We recommend specifically investigating this issue for obsessive passion, which has shown rather ambiguous consequences (Fisher et al., 2018; Fu et al., 2022; Pollack et al., 2020; Vallerand, 2015).

4.7 Conclusion

By considering harmonious and obsessive passion as psychological resources, our study investigated how they develop over time. Our results emphasize the influence of an entrepreneur's current level and type of passion, which determine how competence satisfaction and frustration develop or deplete the passion resources. Obsessive passion has a self-enhancing effect and operates according to the principle that resources build themselves. In contrast, harmonious passion shows a self-regulating effect; it is built when it is low and accumulates in a balanced manner.

CHAPTER V: ILLUMINATING THE DARK SIDE: UNCOVERING THE LAYERS OF OBSESSIVE PASSION IN ENTREPRENEURSHIP

Abstract

While obsessive passion is typically considered to be the “dark side” of passion, entrepreneurship studies have reported on both the positive and negative effects of this passion type. Some have argued that these mixed findings are caused by ambiguities in the conceptualization of obsessive passion. Building on the organismic integration theory, we theorize on four distinct types of obsessive passion: *externally induced, introjected, value-driven, and integrated*. By introducing these different types of obsessive passion, we can provide a fine-grained conceptualization of how different pathways lead to each type of obsessive passion. We then argue that the specific types of obsessive passion are related to distinct outcomes, which originate from the unique source of the constraints on which each type of obsessive passion is based. By sharpening our theoretical understanding of the underlying nature of obsessive passion, we hope to help solve the puzzle of how obsessive passion functions in the entrepreneurial context.

Keywords: Dualistic model of passion, obsessive passion, internalization, organismic integration theory, self-determination theory

5.1 Introduction

Obsessive passion, defined as an addictive-like pursuit of an activity (Vallerand et al., 2003), is a phenomenon often observed in extreme working conditions, such as during the entrepreneurial journey (Newman et al., 2021; Schindehutte et al., 2006; Stroe, Wincent, et al., 2018; Zhao & Liu, 2023). However, prior research has provided an ambiguous picture of how obsessive passion affects entrepreneurs. Obsessively pursuing entrepreneurial activities can lead to disadvantageous consequences, such as increasing the risk of burnout (De Mol et al., 2018), magnifying the fear of failure (Stroe et al., 2020), or fostering the use of causal logic (Stroe, Parida, et al., 2018).

Conversely, obsessive passionate entrepreneurs may benefit from their obsessive passion by attracting potential co-founders (Fu et al., 2022) and investors (Murnieks et al., 2016), or boost their entrepreneurial success through enhanced resilience and commitment (Fisher et al., 2018). We aimed to address this puzzling picture of the functional and dysfunctional sides of obsessive passion by developing a theoretical taxonomy of different obsessive passion types, building on the notion of constrained internalization proposed by organismic integration theory, which is a sub-theory of self-determination theory (Ryan & Deci, 2000). Based on Vallerand et al.'s (2003) general conceptualization of obsessive passion as developing from constrained internalization, we have differentiated among the degrees of internalization and propose four types of obsessive passion, each resulting from a different set and degree of constraints, and we theorize on their unique outcomes.

This study advances the theoretical conceptualization and understanding of the obsessive passion construct in the field of entrepreneurship and beyond. First, we extend Vallerand et al.'s (2003, 2019) dualistic model of passion by theoretically conceptualizing different sub-types of the obsessive passion construct. We propose a fine-grained theoretical distinction between the different degrees of internalization, as developed according to organismic integration theory (Ryan & Deci, 2000, 2020). As such, this study advances

theoretical perspectives on how passion develops (Mageau et al., 2009; Vallerand, 2015) by going beyond the dualistic differentiation between autonomous versus constrained internalization, which determines whether passion develops as harmonious or obsessive, and differentiating among external, introjected, identified, and integrated forms of regulation as sub-categories of constrained internalization, as proposed by organismic integration theory (Deci et al., 2017; Deci & Ryan, 1985).

When we examine the fine-grained conceptual differentiation among the four types of obsessive passion, we emphasize their unique characteristics based on the conditions that foster each type. Thus, we highlight the unique factors that drive and sustain each of the four types. Through this process, we go beyond prior research that has investigated the drivers of passion in general (Bredehorst et al., 2023; Carpentier & Mageau, 2019; López et al., 2022; Mageau et al., 2009; Vallerand et al., 2003, 2014) because we advance theoretical understanding of what circumstances drive more harmful or functional types of passion.

Second, we contribute to passion research in the entrepreneurial context by elucidating the ambiguous nature of obsessive passion, as identified to date (De Mol et al., 2018; Fisher et al., 2018; Fu et al., 2022; Ho & Pollack, 2014; Murnieks et al., 2016; Stroe et al., 2020). We differentiate among different sub-types of obsessive passion and their unique functioning to advance the current understanding of the role of obsessive passion in the entrepreneurial journey. We theorize that each type of obsessive passion is driven by distinct constraints and different degrees of internalization, which can help clarify why and how they lead to different outcomes. This implies varying degrees of dysfunctionality but also that some outcomes relate to the interindividual and intraindividual levels. This advances the research on the outcomes of passion, which has so far only differentiated between the outcomes of harmonious and obsessive passion in general, while depicting harmonious passion as functional and obsessive passion dysfunctional (De Mol et al., 2018; Pollack et al., 2020; Stephan et al., 2009; Stroe et

al., 2020; Vallerand, 2015). This study shows the nuances of (dys-)functionality within the four types of obsessive passion, depending on their degree of constrained internalization.

Obsessive Passion as a Result of Constrained Internalization

Passion is defined as “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757). The dualistic model of passion (Vallerand et al., 2019) has its roots in self-determination theory, which posits that there is a basic human tendency toward organismic integration (Deci & Ryan, 2000). With this, passionate activities become a central feature of an individual’s identity. Vallerand et al. (2003, p. 757) gave an example whereby those who have a passion for playing the guitar define themselves as “guitar players”.

Depending on the kind of internalization process that takes place, one of two types of passion emerge—harmonious or obsessive (Mageau et al., 2009; Vallerand, 2010). While harmonious passion originates from the autonomous integration of activities into the self, a predominantly obsessive passion is the fruit of a controlled internalization process (Vallerand, 2015). Autonomous internalization originates from a situation in which an individual freely and flexibly engages in an activity out of a pure sense of volition and intrinsic motivation (Carpentier & Mageau, 2019; Mageau et al., 2009; Vallerand et al., 2003). Intrinsic motivation means that an individual engages in an activity because of the mere pleasure and enjoyment of doing it (Gagné et al., 2015; Ryan & Deci, 2020). The result is an harmonious integrated activity, which occupies a significant but not overpowering space in an individual’s life (Curran et al., 2014; Vallerand, 2015).

By contrast, obsessive passionate individuals enjoy their passionate activity and engage in it because of the contingencies that are attached to it (Vallerand et al., 2003). For instance, individuals who pursue their passionate activity to boost their self-esteem, gain social acceptance or compensation for unsatisfied needs outside the activity (Lalande et al., 2017; Vallerand, 2010; Vallerand et al., 2003). However, an obsessive passionate individual is

controlled by their passionate activities, and, as a result, the time and energy invested in them tend to take on a disproportionate share of their life (Vallerand, 2010; Vallerand et al., 2003, 2008). Thus, obsessive passionate individuals are driven by an internal compulsion to pursue their passionate activities, which results in a rigid persistence and makes them act as passive slaves to their passion (Curran et al., 2015; Vallerand et al., 2003).

Prior research has pointed out that the uncontrollable pursuit of passionate activities is associated with numerous threats, such as the increased probability of conflict and health risks (Jowett et al., 2013; Philippe et al., 2010; Seguin-Levesque et al., 2003; Stephan et al., 2009; Vallerand et al., 2003), addictive tendencies (Ratelle et al., 2004; Rip et al., 2006; Vallerand et al., 2003), emotional exhaustion (Bredehorst et al., 2023), and burnout (De Mol et al., 2018; Donahue et al., 2012; Trépanier et al., 2014). In an entrepreneurial context, dysfunctional outcomes of obsessive passion have been observed, such as an increased use of causal logic (Stroe, Parida, et al., 2018), increased risk of burnout (De Mol et al., 2018), and a negative effect on business income (Ho & Pollack, 2014).

However, obsessive passion also shows functional outcomes, such as helping to attract co-founders (Fu et al., 2022) and being perceived as a motivated and tenacious person by potential investors (Murnieks et al., 2016); it may also increase the likelihood of starting a business (Dalborg et al., 2015), increase spin-off intentions (Huyghe et al., 2016), and lead to higher entrepreneurial success through resilience and entrepreneurial commitment (Fisher et al., 2018). We aimed to shed light on the understanding of this ambiguous picture by developing our theoretical understanding of the obsessive passion construct.

We argue here that the puzzling picture of how obsessive passion functions is due to its broad theoretical conceptualization, which predicts that every constrained internalization of a specific activity into the self leads to an obsessive passion (Vallerand et al., 2003). We suggest that differentiating between the unique types of obsessive passion, based on the different types of organismic internalization proposed by self-determination theory (Deci et

al., 2017; Deci & Ryan, 1985; Ryan & Deci, 2020), can help us to understand the drivers behind the different types of obsessive passion; that is, which antecedents predict a certain type of obsessive passion, and to which (dys-)functional outcomes the different obsessive passion types may lead.

Moving from a Unidimensional View of Constrained Internalization Toward a Fine-Grained Differentiation of Obsessive Passion

We argue that, although the dualistic model of passion (Vallerand et al., 2003) was developed based on self-determination theory (Deci & Ryan, 2000), the dualistic view of passion focuses on a generalized notion of differentiation (autonomous vs. controlled internalization). In this respect, therefore, it overlooks the more fine-grained picture assumed by organismic integration theory—the sub-theory of self-determination theory theorizing about internalization processes. When we examine the dualistic model of passion, it may seem as if only two types of internalization are possible—either autonomous or controlled—when individuals integrate elements from their environment into their self.

However, the organismic integration theory, which theorizes how individuals integrate activities from their environment into the self—suggests several more possible differentiated internalization processes (Deci & Ryan, 1985; Ryan & Deci, 2000). The general underlying principle of organismic integration theory is the assumption that organisms are active and growth-oriented (Deci & Ryan, 1985; Ryan & Deci, 2000). An organism follows its inherent tendency to become more complex by internalizing outside elements while striving to maintain its overall integrity (Howard et al., 2017; Ruiz-Mirazo et al., 2000). However, this natural integration mechanism is seldom perfectly possible to run its course, and more often affected by constraints, and thus occurs according to different types of regulatory styles (Ryan & Deci, 2000, 2020).

The first type is *autonomous integration*, which is a fully autonomous process that represents pure intrinsic motivation to engage in an activity for its own sake and its inherent

satisfaction (Deci & Ryan, 2000; Ryan & Deci, 2000). This type of internalization is what Vallerand et al. (2003) describe as leading to the creation of a harmonious passion.

Harmonious passionate individuals pursue their passionate activity freely and flexibly and enjoy engagement with it to the fullest extent (Curran et al., 2015).

Furthermore, according to organismic integration theory, there are different types of internalization processes, which are not fully autonomous, but characterized by varying degrees of constraints—that is, relative autonomy (Deci & Ryan, 1985; Olafsen et al., 2018). This means that there are other outcomes of engagement with an activity that may differ from the engagement itself (Van Beek et al., 2012). Internalization is then the process through which individuals acquire external elements and (partially) integrate them into their own identity (Deci & Ryan, 1985). In a work-related context, these partial internalization types play a particularly significant role because, usually, not all aspects of work are exclusively interesting and satisfying (Van Beek et al., 2012).

The other internalization regulatory styles are not fully autonomous and vary in their degree of non-volition (i.e., “I have to do this”) and their perceived locus of causality (Howard et al., 2017). *External regulation* is driven by external rewards or punishments and characterized by compliance and reactance (Ryan & Deci, 2020). *Introjected regulation* is driven by ego involvement and self-control (Ryan & Deci, 2000); it is characterized by internal rewards and punishments and individuals focus on approval of their self (Ryan & Deci, 2020). In *identified regulation*, which is somewhat internally driven by personal importance and self-endorsed goals, individuals consciously value the activity (Ryan & Deci, 2020). Finally, *integrated regulation* is characterized by congruence and consistency with the self; it possesses the highest degree of internalization and is driven internally (Ryan & Deci, 2000, 2020).

All these regulatory styles can be ordered on a continuum, based on their relative autonomy (Howard et al., 2017), and have a mutual core, which represents their degree of

self-determination (Howard et al., 2018). However, they have been shown to possess unique properties and load on specific factors (Howard et al., 2017; Van Den Broeck et al., 2021). Thus, it is essential to differentiate between them and study their emerging conditions and unique consequences. Concerning the development of passion, we suggest that there must be a more fine-grained theoretical conceptualization than the so-far proposed black-and-white picture of harmonious and obsessive passion. In the following sections, we develop our typological model and present an overview of its propositions.

Autonomy and its Constraints in an Entrepreneurial Context

The role of autonomy in an entrepreneurial context is of particular importance and is even one of the primary motivators for individuals self-selecting into entrepreneurship (Bradley & Roberts, 2004; Kolvereid, 1996; Rauch & Frese, 2007; Shane et al., 2003). Entrepreneurial working conditions promise a high degree of autonomy (Schjoedt, 2009; Shir et al., 2019), and provide greater independence because working entrepreneurially naturally does not involve the need to follow any managerial orders (Haynie & Shepherd, 2011; Shane et al., 2003). Being self-employed may also come with a large degree of spatial and time flexibility (Abreu et al., 2019). Thus, entrepreneurship provides a unique context in which to realize self-determination and freely and actively pursue the fulfillment of psychological needs (Nikolaev et al., 2020; Shir et al., 2019).

It may seem as if autonomy is a natural part of entrepreneurial working conditions and that there are no constraints because entrepreneurship implies automatically having full autonomy (Lumpkin et al., 2009; Lumpkin & Dess, 1996). However, recent research has shown that perceptions of autonomy can fluctuate (Ford et al., 2017; Nikolaev et al., 2020; Van Gelderen, 2016). Researchers have increasingly emphasized constraints (López et al., 2022), and threats to entrepreneurial autonomy, pointing out that attaining and maintaining autonomy as an entrepreneur is a highly dynamic struggle (Van Gelderen, 2016; Van Gelderen & Jansen, 2006; Wiklund et al., 2019). Van Gelderen (2016) posited that, although

entrepreneurs might be free from a controlling employer, they might instead have to deal with external constraints, which include demanding stakeholders, such as customers, suppliers, competitors, and investors, and in addition the pressure of having a high responsibility for their employees. Furthermore, prior research has shown that extrinsic motives, such as increasing one's income, financial profit, and job security, are also important drivers of entrepreneurial intention and motivation (Benzing et al., 2009; Murnieks, Klotz, et al., 2020) and that constraints can be antecedents of an entrepreneur's passion (López et al., 2022). In sum, we argue that there may be constraints and contingencies attached to entrepreneurial activities, which is why we expect frequent occurrences of constrained internalization. In the following section, we theorize on the different degrees of constrained internalization of entrepreneurial activity into the self, which result in different types of obsessive passion.

5.2 A Taxonomy of Obsessive Passion and Propositions

Model Overview

We propose a taxonomy of obsessive passion in entrepreneurship (see Figure 10), with four types of obsessive passion differentiating the degrees of internalization.

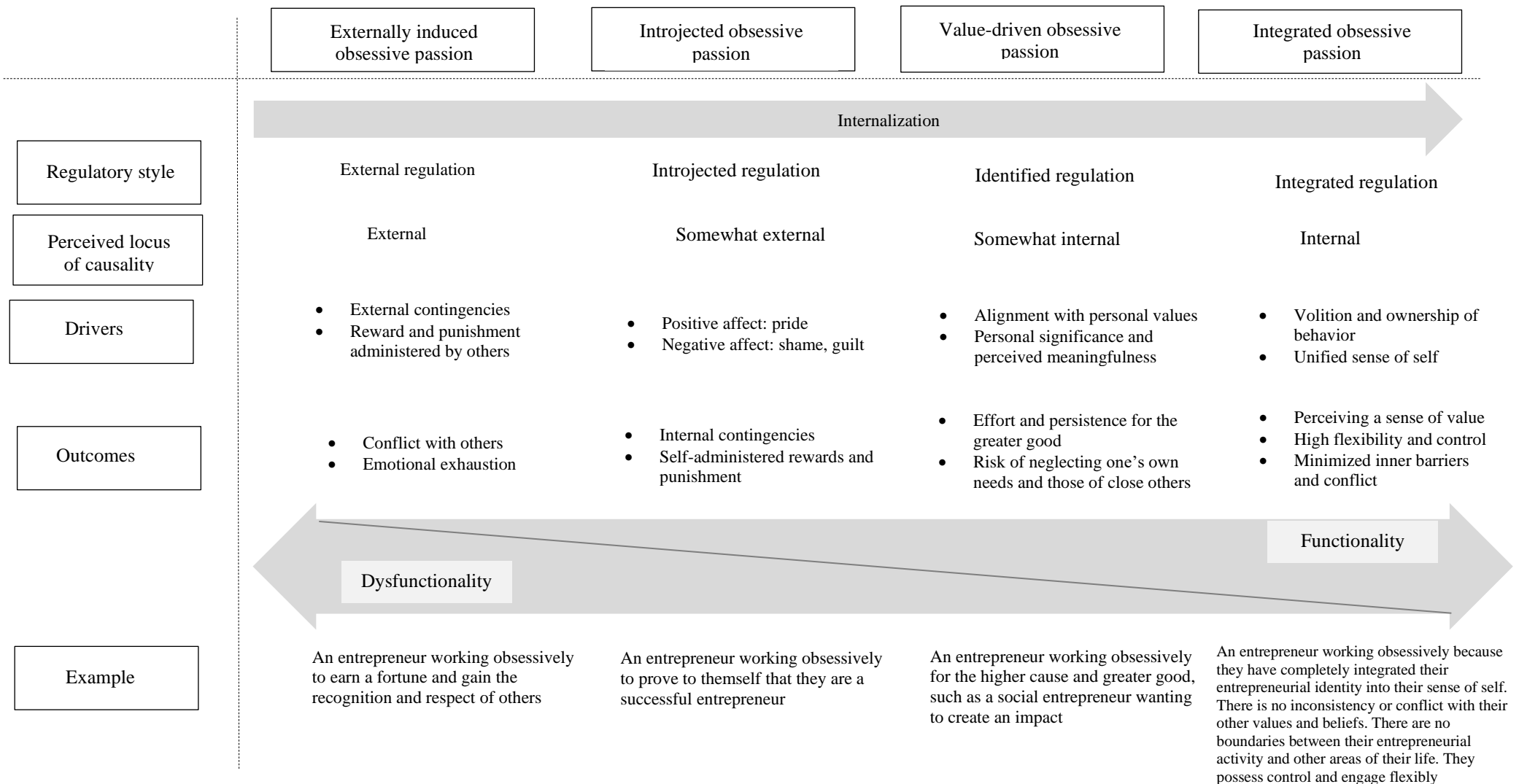


Figure 10. A taxonomy of obsessive passion types based on self-determination theory

Based on the regulatory styles proposed by organismic integration theory (Ryan & Deci, 2000), we suggest four types of obsessive passion: *externally induced, introjected, value-driven, and integrated*. We theorize that externally induced and introjected obsessive passion are characterized by an external locus of control, value-driven and integrated obsessive passion are internally driven and therefore show a higher degree of internalization of activities into the self, and externally induced obsessive passion has the highest degree of dysfunctionality, whereas integrated obsessive passion has the highest degree of functionality.

Type I: Externally Induced Obsessive Passion

Externally induced obsessive passion results from a mainly external regulation process. An external regulation process is driven by external rewards and punishments (Ryan & Deci, 2000); thus, the main motivation to engage in an activity lies not in the enjoyment of the activity itself but in the instrumental behavior, which yields separable consequences outside of mere engagement (Deci et al., 2017). This type of obsessive passion resembles the most controlled and non-autonomous form of internalization. It does not represent fully self-determined behavior and it is characterized by being regulated by the social environment (Ryan & Deci, 2000; Van Beek et al., 2012; Van Den Broeck et al., 2011).

Researchers have distinguished between *social* and *material rewards* (Gagné et al., 2015) and argued that both can drive externally induced obsessive passion. The external rewards and punishment of extrinsic regulation are *material* in nature and include financial rewards and job security (Gagné et al., 2015). Entrepreneurs driven by the desire to increase their income and gain financial wealth through entrepreneurial activity are likely to develop externally induced obsessive passion. In line with prior research (Kollmann et al., 2017), we posit that entrepreneurs perceive the loss of their financial assets as a major threat and external punishment. The potential risk of losing financial resources places extreme pressure on entrepreneurs because insufficient liquidity may lead to business failure (Gregory et al.,

2005; Shepherd et al., 2009). We argue that this pressure is a main source of external contingencies that drive externally induced obsessive passion for entrepreneurial activity.

Furthermore, necessity-driven entrepreneurs engage in entrepreneurship out of a forced choice (Angulo-Guerrero et al., 2017; Block et al., 2009; GEM, 2022; Williams, 2008). They are pushed toward and continue to participate in entrepreneurship because they lack other job opportunities (Block & Wagner, 2010). This pressure to engage in entrepreneurship to secure one's survival is likely to result in externally induced obsessive passion because entrepreneurs experience a high degree of external regulation. By necessity, entrepreneurs primarily pursue entrepreneurial activity because of outside constraints rather than for personal enjoyment (GEM, 2022; Williams, 2008; Williams & Williams, 2014). Accordingly, we suggest that necessity entrepreneurs have a higher probability of developing an externally induced obsessive passion.

Social external rewards and punishments include obtaining approval and respect from one quarter and avoiding criticism from another (Gagné et al., 2015). In line with this, we argue that, for instance, socially prescribed perfectionism might be a driver of externally induced obsessive passion. Prior research also indicates that socially prescribed perfectionism is linked to controlled forms of regulation (Miquelon et al., 2005) and it has been identified as an antecedent of obsessive passion (Curran et al., 2015; Verner-Filion & Vallerand, 2016). Close family members might also be a source of such pressure. Previous research has suggested that individuals engage in entrepreneurship to provide jobs for or be close to their family members (Benzing et al., 2009), or provide an inheritance for their children (Lasso et al., 2018). Externally induced obsessive passion may result from pressures within an entrepreneur's social surroundings, such as the need to provide job security and wealth for their family, gain a friend's respect, or remain close to friends and family through entrepreneurship.

Furthermore, entrepreneurs are embedded within a social environment that encompasses all kinds of individuals, such as customers, suppliers, co-founders, and venture capital or angel investors (Kollmann et al., 2017; Stam et al., 2014). These individuals can be a source of external social control and pressure, such as by inducing deadlines, performance goals, evaluation, and surveillance (Deci & Ryan, 1987; Ryan & Deci, 2020). In line with this, research has shown that gaining recognition and respect from others and society overall motivates individuals to engage in entrepreneurial activities (Lasso et al., 2018). Not fulfilling the expectations of others and disappointing those in one's social environment can threaten entrepreneurs' self-esteem and place them under high pressure (Cacciotti et al., 2016). We posit that these external regulators drive externally induced obsessive passion. Accordingly, we consider the loss of valuable social capital (Florin et al., 2003; Hoang & Antoncic, 2003; Kollmann et al., 2017) to be an external punishment and a source of external pressure that enhances externally induced obsessive passion.

We further theorize that, if the external reward or punishment is relieved, entrepreneurial passion will diminish because it is mainly driven by external contingencies. Therefore, if the external rewards or punishments that drive their passion cease, entrepreneurs who experience externally induced obsessive passion will be less persistent in the long run because their passion is based on conditions in their external environment. This is in line with prior research that has shown that extrinsically motivated entrepreneurs who confront exit-versus-persist decisions are more likely to exit (DeTienne et al., 2008). Furthermore, we argue that an entrepreneur with externally induced obsessive passion may, through their extrinsic desire to earn a high income, have a higher probability of engaging in risky entrepreneurial behavior. This is because the individual experiences an external locus of causality, implying distance from the self and a feeling of being left without a choice. We argue that riskier entrepreneurial behavior results from not perceiving agency and personal responsibility, rather from being controlled by external forces. Prior research has suggested this direction, showing

that external motives, such as financial reasons, are associated with riskier venture strategies and less persistence (Almandoz, 2012, 2014; Block & Sandner, 2009).

However, this notion of having no choice and being “a puppet on a string” could also lead to higher levels of commitment, under the condition that the external circumstances that drive and sustain the externally induced passion do not change. For instance, an entrepreneur with an externally induced obsessive passion driven by financial necessity is likely to experience a higher continuance commitment, even under adverse circumstances, than one who engages in entrepreneurship out of pure enjoyment. In line with this, prior research has indicated that, while extrinsic motivation is positively associated with continuance commitment, intrinsic motivation is unrelated to it (Van Den Broeck et al., 2021). Furthermore, although it can have numerous negative consequences, extrinsically induced obsessive passion is a motivational force and, depending on the strength of the external constraints, a powerful one. Thus, it is likely to lead to enhanced performance and proactivity.

However, this has a downside, in that because extrinsically induced obsessive passion is driven by external forces, an individual will have no control over it. As long as these external forces are prevalent, it must run its course, which ultimately increases the risk an individual will experience distress and burnout. Research has suggested that external motivations are associated with this increased risk (Van Den Broeck et al., 2011, 2021) because the individual will have no power to stop their addictive engagement in the entrepreneurial activity unless the external drivers are alleviated. Therefore, we expect the extrinsically induced obsessive passion to take up a disproportionate amount of space in an individual’s life and cause conflict with other life areas. Thus, we propose the following regarding externally induced obsessive passion:

Proposition 1a: Externally induced obsessive passion results from an extrinsic regulation driven by material and social external rewards and punishments.

Proposition 1b: Externally induced obsessive passion leads to dysfunctional outcomes, such as a persistence that is dependent on external constraints, risky venture behavior, interpersonal conflict, and emotional exhaustion.

Type II: Introjected Obsessive Passion

We further suggest a second type of obsessive passion called *introjected obsessive passion*, which has its origins in introjected regulation. Although this is a more autonomous form of internalization than external regulation, it is still relatively controlled (Ryan & Deci, 2000); however, the resulting behaviors are not self-determined. It is characterized by contingent self-esteem and often takes the form of ego involvement (Deci et al., 2017; Ryan & Deci, 2020). Introjected regulation follows when individuals primarily focus on approval versus disapproval from their environment (Deci et al., 2017), meaning they are controlled by contingent self-esteem based on their status and recognition (Deci et al., 2017). Thus, introjected regulation is driven by rewards and punishments, similar to external regulations.

However, contrary to external regulation, rewards and punishments are self-administered with introjected regulation (Van Den Broeck et al., 2021). Introjection means that individuals carry an internal representation of the contingency (Deci & Ryan, 1985); thus, feelings of control and pressure come from internal sources (Deci & Ryan, 2000; Van Den Broeck et al., 2021). Individuals rigidly adopt external standards of self-worth and social approval, and reward or punish themselves for fulfilling or not fulfilling those standards (Olafsen et al., 2018; Van Beek et al., 2012).

Although the regulation has been partially internalized, the activity has not become part of the self (Deci & Ryan, 2000). Individuals do not fully identify with external standards of self-worth and approval, although they feel they must comply with them to feel worthy (Van Beek et al., 2012). Therefore, introjected regulation is often accompanied by self-controlling language, such as “I should do” (Van Den Broeck et al., 2021). Individuals attempt to demonstrate their ability and put in more effort, and they subsequently judge and

apply approval or disapproval standards to themselves (Deci & Ryan, 1985). If the internal demand is met, they grant self-administered rewards for success, such as positive emotions or enhanced self-esteem (Ryan & Deci, 2020; Van Den Broeck et al., 2021).

Furthermore, individuals attempt to avoid self-punishment for failure such as negative emotions including anxiety and shame or guilt (Ryan & Deci, 2020; Van Den Broeck et al., 2021). In line with this, introjected regulation is driven by feelings of pride and wanting to prove oneself (Gagné et al., 2015). Simultaneously, individuals attempt to avoid the guilt or shame they experience when their internal standards are not met (Deci & Ryan, 1985; Gagné et al., 2015).

We posit that entrepreneurs with an introjected obsessive passion exert pressure on themselves to successfully complete entrepreneurial activities to experience positive feelings, such as pride. Research has suggested that proving “I can do it” is a prevailing motive for entrepreneurial behavior (Benzing et al., 2009). Individuals engage in entrepreneurship to challenge themselves because they thrive on self-accomplishment (Lasso et al., 2018), and if these motives are fueled by a strong ego involvement, they will likely be driven by introjected obsessive passion. Thus, the pressure entrepreneurs place on themselves to enhance their ego by proving their own capabilities is an important driver of an introjected obsessive passion. Furthermore, entrepreneurs with an introjected obsessive passion may act against their own preferences and work obsessively for long hours to comply with what they have internalized as the “standard” of their entrepreneurial community, trying to avoid feeling guilty or ashamed by doing otherwise.

We posit that, in line with the consequences predicted for introjected regulation (Deci & Ryan, 1985), an introjected obsessive passion results from ego involvement and internal pressure. With introjected obsessive passion, self-esteem is contingent on outcomes, and this is the main driver of this type of obsessive passion. Thus, entrepreneurs with an introjected obsessive passion exert pressure on themselves to obsessively engage in entrepreneurial

activity because it is what they believe successful and famous entrepreneurs do and feel they need to “measure up” to feel proud of themselves. Thus, we suggest that the outcomes of introjected obsessive passion are mainly affective consequences contingent on the experience of engaging in the entrepreneurial activity. Whereas positive affect is experienced when internal demands, such as feelings of pride and worthiness, are met, negative affect is experienced when internal standards are not reached. When individuals do not successfully meet their internal constraints, they experience negative affective outcomes, such as guilt, shame, anxiety, and lack of self-worth. Prior research supports the duality of outcomes of introjected regulation, there can be negative consequences such as distress, and burnout, but as well more positive results such as affective commitment (Van Den Broeck et al., 2021).

Furthermore, we posit that introjected obsessive passion is associated with continuous persistence, even if external circumstances change. While extrinsic obsessive passion is directly driven by extrinsic factors (rewards or punishment), introjected obsessive passion is driven by intraindividual constraints. Introjected obsessive passion leads to more stable engagement in entrepreneurial activity over time than extrinsic obsessive passion does because it results from introjected regulation, in that it is at least partially internalized. It includes the partial assimilation of external demands into the self; thus, the regulation comes from within, which makes it more stable (Deci & Ryan, 2000).

Individuals with low self-efficacy are more likely to depend on cues to evaluate their own ability because they are unsure if they are capable entrepreneurs. If individuals perceive an entrepreneurial endeavor as having low feasibility, they will have little confidence in themselves to successfully perform the associated activities and tasks (Bandura, 1978a; Chen et al., 1998; McGee et al., 2009; Zhao et al., 2005), thereby making them more likely to feel pressure to prove to themselves that they can “do it.”

We posit that another factor fueling introjected obsessive passion is an entrepreneur’s fear of failure. Although failure is a frequent outcome, it is among the most stigmatized

business outcomes in an entrepreneurial context (Cacciotti et al., 2016; Shepherd & Haynie, 2011). Entrepreneurs experiencing a high fear of failure pressure themselves more and feel more severe internal contingencies to succeed in their entrepreneurial activity. In an entrepreneurial context, fear of failure is a frequently observed phenomenon because entrepreneurs might experience higher personal responsibility and a direct link between their abilities, performance, and identity and the success of the venture (Cacciotti et al., 2016; Haynie & Shepherd, 2011; Murnieks, Klotz, et al., 2020; Shepherd et al., 2011). Thus, we propose the following regarding introjected obsessive passion:

Proposition 2a: Introjected obsessive passion is driven by contingent self-esteem.

Proposition 2b: Introjected obsessive passion leads to affective experiences depending on the fulfillment of internal demands. If the internal standard is met, positive affect is experienced (e.g., feelings of pride and worthiness); if not, negative affective consequences (e.g., feelings of guilt, shame, anxiety, and unworthiness) occur.

Type III: Value-driven Obsessive Passion

We propose a third type of obsessive passion called *value-driven obsessive passion*, which results from an identified regulation process. The concept of identification implies that an individual consciously identifies with regulation and its outcome, which is a more internalized, and thus more self-determined, form of regulation than that of external and introjected regulation (Deci & Ryan, 2000). Individuals personally value the outcome and therefore consider regulating their behavior to produce the outcome is important (Deci & Ryan, 1985). The relevance of the activity is understood as being one's own (Olafsen et al., 2018). This feeling of ownership is why identified regulation is considered to have a higher degree of autonomy and internalization than external and introjected regulation (Van Beek et al., 2012). Thus, individuals experience a high degree of volition and willingness to act because they have endorsed the underlying value of an activity (Ryan & Deci, 2000, 2020). However, the underlying regulation remains instrumental, rather than solely based on the

spontaneous enjoyment and satisfaction derived from engaging in the activity (Deci & Ryan, 2000). Thus, identified regulation implies less pressure, control, and conflict, and greater flexibility and autonomy than extrinsic and introjected regulation (Deci & Ryan, 1985).

Identified regulation is driven by a feeling of alignment with personal values (Gagné et al., 2015). Therefore, individuals who experience identified regulation toward their work consider it personally important to put effort into their work (Gagné et al., 2015). They are convinced that this effort has significance for them and aligns with their personal values (Gagné et al., 2015).

Entrepreneurs with value-driven obsessive passion engage obsessively in entrepreneurial activity because they like working hard for the greater good and the goal they are working toward. Value-driven obsessive passion is motivated by a high sense of perceived meaningfulness and importance that these individuals associate with their entrepreneurial activity. For instance, social entrepreneurs, who pursue prosocial goals to change the world and create an impact for the greater good (Douglas & Prentice, 2019; Miller et al., 2012; Williams & Shepherd, 2016), are likely to develop a value-driven obsessive passion towards the entrepreneurial activity because their entrepreneurial engagement is aligned with their personal values.

Value-driven obsessive passion, as opposed to extrinsic and introjected obsessive passion, increases the likelihood of persistence in an activity because the values and significance associated with the activity are endorsed by the self. Accordingly, research has indicated a congruence between a venture's mission and an entrepreneur's values that is positively associated with persistence in an entrepreneurial endeavor, such as in difficult industries (Weber et al., 2008). Additionally, entrepreneurs with communally logical motives are more likely to persist (Almandoz, 2012). We theorize that this type of obsessive passion is associated with more flexible commitment and persistence compared to extrinsic introjected obsessive passion and is independent of potentially mutable external environmental

conditions. Entrepreneurs with a value-driven obsessive passion are expected to select, engage, and sustain their entrepreneurial activities more freely and flexibly than entrepreneurs with an extrinsic or introjected type of obsessive passion.

In line with research on the outcomes of identified regulation (Ryan & Connell, 1989; Ryan & Deci, 2000), we posit that value-driven obsessive passion leads to more enjoyment, effort, and positive coping styles than extrinsic and introjected regulation. Notably, identified regulation may even lead to entrepreneurs putting in more continuous effort investment and “going the extra mile” compared with more autonomous regulated internalizations of behavior (Gagné & Deci, 2005; Van Den Broeck et al., 2021). This is because personal significance and meaning, and alignment with personal values (Sheldon & Schöler, 2011) are powerful driving forces. A recent meta-analysis suggested that identified forms of regulation may even lead to higher performance outcomes than autonomous forms of regulation (Van Den Broeck et al., 2021). Furthermore, identified regulation is positively associated with less distress and burnout than extrinsic and introjected regulation (Van Den Broeck et al., 2021). Thus, we propose the following regarding value-driven obsessive passion:

Proposition 3a: Value-driven obsessive passion is driven by the personal valuation, meaningfulness, and significance that individuals experience during their entrepreneurial activity.

Proposition 3b: Value-driven obsessive passion leads to greater well-being, more effort, and more positive coping styles.

Type IV: Integrated Obsessive Passion

We propose a fourth type of obsessive passion called *integrated obsessive passion*, which results from the most complete form of internalization: integration. It occurs when individuals fully self-endorse an activity and have integrated their identification with that activity into other aspects of their self (Olafsen et al., 2018). Thus, these individuals recognize and value the activity and it is congruent with their other core values and beliefs. The

entrepreneurial activity reflects their true unified sense of self (Deci & Ryan, 1985, 2000) and becomes an integral part of the self to achieve coherence with the integrated regulatory schema and other regulatory schemata with which one identifies (Deci & Ryan, 1985; Ryan & Deci, 2020). Thus, integrated regulation minimizes inner barriers and conflicts because the identifications are all aligned (Deci et al., 2017); an integrated obsessive passion is all-embracing.

Similar to intrinsic motivation, integrated regulation is highly volitional and autonomous (Ryan & Deci, 2020; Van Beek et al., 2012). However, the two constructs differ in that intrinsic motivation is based on the pure satisfaction and enjoyment gaining from engaging in an activity (Gagné et al., 2015; Ryan & Deci, 2020), whereas integrated regulation and other forms of internalization are driven by a sense of value (Ryan & Deci, 2020). Individuals engage in activities because they perceive them as worthwhile, which makes them instrumental; the enjoyment of the activity itself is not the exclusive driver (Ryan & Deci, 2000, 2020; Van Den Broeck et al., 2021).

Integrated regulation is characterized by the highest degree of flexibility and autonomy compared to extrinsic, introjected, and identified regulation (Deci & Ryan, 1985). According to the organismic-dialectical perspective, compared to the other regulation types, integrated regulation internalization represents, to the highest degree, an individual's inherent propensity for learning and growing. Thus, organisms actively thrive to fully integrate elements from their environment into their self (Ryan & Deci, 2000, 2020). Notably, prior research has struggled with empirically distinguishing between integrated regulation and identified regulation and intrinsic motivation. Although the differentiation is straightforward on a theoretical and conceptual level, the empirical measurement has challenged researchers to date (Ryan & Deci, 2000; Van Den Broeck et al., 2021).

Integrated regulation is the form of regulation with the highest degree of volition and autonomy out of the four types proposed by organismic self-determination theory (Deci &

Ryan, 1985; Ryan & Deci, 2020); thus, individuals with a predominant independence motive will presumably develop integrated obsessive passion (Douglas, 2013; Lasso et al., 2018; Murnieks, Klotz, et al., 2020). Research has shown that motives such as independence and innovation play a significant role for entrepreneurs (Amit et al., 2001; Murnieks, Klotz, et al., 2020). Furthermore, independence and autonomy are powerful driving forces that motivate individuals to engage in entrepreneurship (Shir et al., 2019; Van Gelderen, 2016; Van Gelderen & Jansen, 2006). Accordingly, we posit that individuals who are primarily motivated to engage in entrepreneurship because they want to be their own boss or maintain their personal freedom, for their own satisfaction and growth, or simply to have fun (Benzing et al., 2009), are those who will develop an integrated obsessive passion.

Furthermore, we theorize that individuals high in entrepreneurial self-efficacy (Chen et al., 1998; McGee et al., 2009; Zhao et al., 2005) will develop integrated obsessive passion for their entrepreneurial activity. Individuals with a high self-efficacy and trust in their own capabilities are more effective in their activity engagement, without depending on external circumstances, and show greater strategic adaptability and enhanced intellectual capability (Bandura, 1978a, 1989). Therefore, we posit that those with high self-efficacy will independently and freely engage in entrepreneurial activity, and thus will be able to integrate that activity flexibly with the self.

In line with research on the outcomes of more autonomous forms of behavioral regulation (Deci et al., 2017; Ryan & Deci, 2020; Van Den Broeck et al., 2021), we predict that integrated obsessive passion leads to the highest degree of functional outcomes compared to other forms of extrinsic regulation. Above all, integrated obsessive passion should present the lowest risk of emotional exhaustion and burnout because, although this type of obsessive passion is all-encompassing, it is a flexible and autonomous form of activity engagement. Thus, although an individual might align all areas in their life with an entrepreneurial activity and obsessively work long hours, they may also experience a high internal consistency,

congruency, and autonomy. This combination protects them from emotional exhaustion because they feel that they are in control and their behavior is in line with their whole self. This is expected to lead to high engagement and performance levels. Furthermore, we posit that this internal congruency results in a lack of boundaries between the individual's entrepreneurial activity and other life domains. For instance, an individual might view their entrepreneurial activity and private life as one, and not differentiate between them either geographically or emotionally. However, contrary to with other forms of controlled internalization, such as extrinsic obsessive passion, this disproportionate engagement does not lead to internal distress or conflict with other life domains because one's identities and roles are aligned, and other life areas are not overcrowded or viewed as competitive, rather seamlessly integrated.

Proposition 4a: Integrated obsessive passion is driven by a high degree of autonomy and motivation for independence.

Proposition 4b: Integrated obsessive passion leads to high performance, flexible persistence, and a minimized risk of burnout and emotional exhaustion.

5.3 Discussion and Implications

This study provides a novel taxonomy of four different types of obsessive passion, developed according to the degrees of controlled internalization proposed by organismic integration theory (Ryan & Deci, 2000). This study can make multiple contributions to the passion research stream and suggests paths for future research. First, this study augments the dual differentiation into harmonious and obsessive passion (Vallerand et al., 2003). Prior research on passion has mainly focused on harmonious passion or entrepreneurial passion and its positive outcomes in various contexts (Curran et al., 2015; López et al., 2022; Newman et al., 2021; Pollack et al., 2020; Vallerand, 2015; Vallerand et al., 2019). Obsessive passion has primarily been portrayed as a dysfunctional antagonist and has seldom attracted research

interest beyond its harmful role (Donahue et al., 2012; Ratelle et al., 2004; Seguin-Levesque et al., 2003; Trépanier et al., 2014; Vallerand et al., 2014). We advance this view by presenting a more fine-grained conceptualization of obsessive passion, which constitutes dysfunctionality and functionality at different degrees of internalization. Furthermore, this study extended the dualistic model of passion (Mageau et al., 2009; Vallerand et al., 2003, 2014), which, to date, has only focused on the distinction between autonomous and constrained internalization processes.

We further differentiated constrained internalization with respect to the degree of internalization and the origin of the constraint. First, we derived externally induced and introjected obsessive passion from external forms of regulation, according to organismic integration theory (Deci & Ryan, 2000; Ryan & Deci, 2000), showing which types of entrepreneurs and external and internal conditions foster these forms of obsessive passion and their respective outcomes. Second, we conceptualized value-driven and integrated obsessive passion based on internal forms of regulation proposed by self-determination theory, specifically its sub-theory organismic integration theory (Deci et al., 2017; Deci & Ryan, 1985). Within these two types of obsessive passion, we emphasized the bright side of obsessive passion, arguing that it displays a high proportion of functional outcomes. We posited that these types of obsessive passion are less harmful, or not harmful at all, for the entrepreneur than other types. For example, entrepreneurs who engage in social entrepreneurship and fight for the greater good are likely to develop a value-driven obsessive passion. We encourage other researchers to build on prior efforts (Tóth-Király et al., 2021) and investigate profiles consisting of these different types of obsessive passion simultaneously within an individual.

Second, with our theoretical typology of obsessive passion, we aimed to clarify ambiguous findings regarding obsessive passion in the entrepreneurial context. We theorized that four types of obsessive passion exist and demonstrated how their unique outcomes

comprise dysfunctional and functional consequences to varying degrees. In line with the general prediction of organismic integration theory, we argue that, with increasing autonomous forms of integration, outcomes will increasingly move toward optimal human functioning (Deci & Ryan, 2000; Kanat-Maymon & Reizer, 2017; Van Den Broeck et al., 2011, 2021). However, the taxonomy presented in this study emphasizes the concept that extrinsic regulation should not be regarded as dysfunctional per se, but rather that it has functional consequences as well (Deci, 1972; Deci et al., 2017). A combination of external and internal regulation may lead to higher business performance than intrinsic motives alone (Kuhn & Galloway, 2015).

We suggest that integrated obsessive passion results from a high degree of internalization; thus, we argue that it has several similarities with harmonious passion with respect to the functionality of its outcomes. This type of obsessive passion is characterized by minimized inner barriers and conflict because it implies a unified sense of self. We posit that integrated obsessive passion is a type of obsessive passion because the associated entrepreneurial activity occupies a disproportionately large space in the entrepreneur's life. Furthermore, we propose that it would lead to high perseverance and persistence over time, independent of uncertain environmental conditions, without emotionally draining the individual. This type reflects the positive view of obsessive passion, which has been depicted in some research (Fisher et al., 2018; Fu et al., 2022; Murnieks et al., 2016; Pollack et al., 2020). Therefore, it leads to high flexibility without conflict. At the other end of the continuum, we presented externally induced obsessive passion, which is characterized by external contingencies, and thus likely to lead to high levels of interpersonal conflict and emotional exhaustion. Thus, this type resonates with prior research on the harmful aspects of obsessive passion (De Mol et al., 2018; Newman et al., 2021; Pollack et al., 2020; Stephan et al., 2009; Stroe et al., 2020; Trépanier et al., 2014).

Practical Contributions

This study's findings offer various valuable practical contributions. First, we propose a perspective shift on obsessive passion, showing that it is not necessarily dysfunctional and harmful, but that the outcomes depend on the type of obsessive passion. This conceptualization can help obsessively passionate entrepreneurs evaluate their own obsessive passion in a more nuanced light. They may try to nourish it and move toward an obsessive passion type with a higher degree of internalization, which is more likely to offer greater benefits and functional rather than dysfunctional outcomes. Second, we argue that rewards and punishment that come from external sources exert pressure on entrepreneurs and are likely to lead to the most harmful type of obsessive passion. Therefore, we recommend that entrepreneurial educators include knowledge on the risk of different types of constraints on entrepreneurs in their curricula. The second type of passion (i.e., introjected obsessive passion) results from a high dependence on internal contingencies and shows various dysfunctional outcomes. We suggest openly addressing the involved risks in educational programs targeted at entrepreneurs.

5.4 Conclusion

The entrepreneurial working context is an extreme environment in which an obsessive passion for entrepreneurial activity is likely to develop. Entrepreneurs are driven by various internal and external pressures that fuel their obsessive passion. We argue that the current theoretical conceptualization of obsessive entrepreneurial passion does not represent the various constraining factors and their differing strengths and origins. Therefore, we propose a fine-grained taxonomy of different types of obsessive passion according to different degrees of internalization. Our hope is that this new theoretical perspective will initiate discussion and encourages further theoretical and empirical work focusing on types of obsessive entrepreneurial passion and their unique functioning.

CHAPTER VI: ATTRACTED OR REPELLED? INVESTIGATING JOB SEEKERS' PERCEPTIONS OF OBSESSIVE ENTREPRENEURS

Abstract

This study investigates the effects of entrepreneurs' obsessive passion on potential job seekers, exploring whether it functions as an asset or a liability in startup recruitment. Drawing upon signaling theory and person–environment (PE) fit theory, we develop a contingent model that elucidates job seekers' perceptions of “obsessive passion” as a recruitment signal, considering their individual characteristics as boundary conditions for the interpretation of this signal. Our hypotheses were tested in a metric conjoint experiment involving 181 job seekers, yielding 2,896 decisions. The results indicate that the effects of an entrepreneur's perceived obsessive passion on a venture's attractiveness as a potential employer are contingent upon job seekers' characteristics. Specifically, signaling obsessive passion is only attractive to job seekers with highly proactive personalities and entrepreneurial self-efficacy. Those who score low on these factors and those who are risk-averse, tend to be repelled by such signals. These findings contribute to the literature on new venture recruitment by demonstrating how signals of obsessive passion aid in job seekers' self-selection, ultimately attracting employees who are well-suited for the entrepreneurial environment.

Keywords: Recruitment, organizational attractiveness, new venture, obsessive passion, applicant attraction, human capital, metric conjoint, signaling theory, PE fit theory

6.1 Introduction

To facilitate growth and establish a competitive advantage, startup companies must recruit appropriate talent (Rauch et al., 2005; Unger et al., 2011). In this context, startups face substantial challenges, including limited resources, a lack of job security, and little brand equity (Cardon & Stevens, 2004; Ployhart et al., 2017; Sauermann, 2018; Theurer et al., 2018; Williamson et al., 2002). However, in terms of recruitment, they can rely on one salient asset—the entrepreneurs at the helm of the organization (Hubner et al., 2023), who reflect and shape the company significantly through their passion (Hubner et al., 2020; Murnieks et al., 2014; Newman et al., 2021).

Passion can be defined as “a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy” (Vallerand et al., 2003, p. 757), and previous studies suggest that an entrepreneur’s passion can be a helpful tool for attracting investors (Warnick et al., 2018) and human capital (Lewis & Cardon, 2020; Piva & Stroe, 2023) and to motivate employees (Breugst et al., 2012). However, signaling passion might be a double-edged sword in terms of recruitment, particularly in the case of obsessive passion (Vallerand et al., 2003). Obsessive passion can not only signal an entrepreneur’s strong focus, devotion, and commitment to a startup but also a challenging and demanding work environment (De Mol et al., 2018; Fu et al., 2022; Murnieks et al., 2016; Pollack et al., 2020; Vallerand et al., 2010). Some job seekers may view this as positive; however, it could evoke aversion or resentment in others, making obsessive passion a potentially ambivalent signal for startup recruitment.

The aim of this study is to resolve the ambiguity surrounding obsessive passion in the context of startup recruitment by blending signaling (Spence, 1973) with PE fit theory (Kristof, 1996; Kristof-Brown et al., 2005, 2023). We contend that, given entrepreneur’s central role in a startup, obsessive passion is a relevant signal to job seekers that they can

interpret as either positive or negative. Applying a PE fit lens, we propose that how individual job seekers interpret obsessive passion largely depends on their proactive personality, entrepreneurial self-efficacy, and their attitude toward risk, which are characteristics that determine whether an individual is well-suited to work with an obsessively passionate entrepreneur. These characteristics provide job seekers with needs and abilities that match the opportunity-rich but also risky, effortful and demanding work environment in startups (Bandura, 1997; Chen et al., 1998; Clark et al., 2024; Hsu et al., 2019) run by obsessively passionate entrepreneurs. Accordingly, job seekers who possess a proactive personality and entrepreneurial self-efficacy are likely to perceive an obsessive entrepreneur as an indicator of a work environment that aligns well with their needs and preferences. Conversely, risk-averse individuals tend to perceive an obsessive entrepreneur as a signal of unpredictability and instability, making the new venture a less attractive employer. We test our theoretical model and respective assumptions using a metric conjoint experiment involving 181 job seekers, yielding 2,896 decisions based on evaluations of 16 conjoint profiles concerning employer attractiveness.

This study contributes to the literature on recruitment and passion in entrepreneurship in several ways. First, we contribute to the emerging body of research examining an entrepreneur's passion as a signal to stakeholders, such as investors (Mitteness et al., 2012; Warnick et al., 2018), employees (Breugst et al., 2012; Hubner et al., 2020), cofounders (Fu et al., 2022), and job seekers (Lewis & Cardon, 2020; Piva & Stroe, 2023). Furthermore, this study adds to the literature on passion in the field of entrepreneurship and the broader domains of organizational behavior and psychology (Astakhova et al., 2022; Newman et al., 2021; Pollack et al., 2020; Vallerand, 2015; Zhao & Liu, 2023). Although research on obsessive passion has predominantly highlighted its negative aspects (De Mol et al., 2018; Ho & Pollack, 2014; Pollack et al., 2020; Stroe et al., 2020), studies have also acknowledged positive facets (Fisher et al., 2018; Fu et al., 2022; Murnieks et al., 2016). This dichotomy

presents an ambiguous understanding, and our study contributes to a developing a more nuanced perspective. The findings demonstrate boundary conditions under which obsessive passion can serve as a beneficial signal, particularly in terms of its positive function in an entrepreneurial context. Specifically, we argue that, in the context of enhancing a new venture's organizational attractiveness to applicants with a human capital profile suited to such entrepreneurial demands, obsessive passion can have a distinctively positive role.

Second, this study advances the current research by showcasing the role of entrepreneurs' passion in attracting job applicants. Examining displays of entrepreneurial passion and their effects on recruitment offers a fresh perspective for understanding the attractiveness of new ventures as employers. Notably, most recruitment studies have emphasized the effects of firm-level or procedural signals on applicant attraction (Uggerslev et al., 2012), with only a few focusing on individual-level characteristics (Chung & Parker, 2023; Hubner et al., 2023). Entrepreneurs often wield significant influence on the recruitment process by representing the culture of their startups, serving as leaders, and sometimes even taking on a recruiter role (Hubner et al., 2023; Lewis & Cardon, 2020; Moser et al., 2017; Van Balen & Tarakci, 2023). This offers a fertile ground for examining how individuals can affect applicant attraction beyond firm-level factors.

Third, this study provides a theoretical contribution by merging signaling and PE fit theories to systematically explain when a potentially ambiguous signal, specifically an entrepreneur's obsessive passion, attracts applicants and when it repels them. Many signals in recruitment can have a certain ambiguity (Connelly et al., 2011) and some studies have begun to develop a conceptual frameworks to resolve this issue (e.g., Drover et al., 2018; Schüler, Franzke et al., 2023). PE fit theory contextualizes the interpretation of the obsessive passion signal in terms of job seeker's individual-level characteristics. Individuals with characteristics that align more closely with the needs–supplies and abilities–demands of the entrepreneurial environment are more likely to perceive the positive associations of obsessive passion and

disregard the potential downsides of working for an obsessively passionate entrepreneur. We posit that this rationale is transferable to other contexts and situations in which signals have a certain level of ambiguity.

6.2 Theory and Hypotheses

This study delves into job seekers’ perceptions of obsessive passion in potential employers, focusing on a stakeholder group that, despite its critical importance, has not been researched extensively in the context of new ventures. Our investigation centers on two primary aspects: 1) how job seekers perceive entrepreneurs who exhibit obsessive passion and 2) how these perceptions vary based on individual-level moderators. Our research model is illustrated in Figure 11.

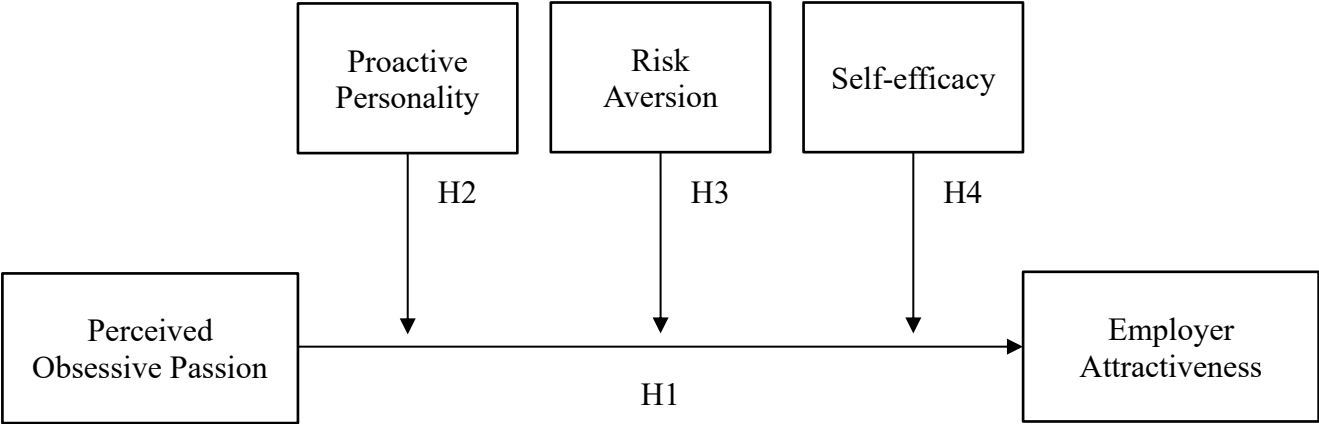


Figure 11. The effects of perceived obsessive passion on employer attractiveness depending on job seekers' attributes

Entrepreneurs' Obsessive Passion as a Signal to Job Seekers

Signaling theory provides an analytical framework to understand the communication and interpretation of information between two parties in situations characterized by information asymmetry (Connelly et al., 2011; Spence, 1973). In the recruitment context, this asymmetry results from candidates' limited insight into a company's internal operations and working environment. Utilizing signals can help mitigate this gap as candidates assess the attractiveness of a potential employer (Chapman et al., 2005). This information asymmetry is even more pronounced in new ventures than in larger organizations; with the latter, job seekers often have access to publicly available information and are familiar with strong brand images (Backes-Gellner & Werner, 2007; Lievens & Slaughter, 2016; Moser et al., 2017; Theurer et al., 2018; Tumasjan et al., 2011; Uggerslev et al., 2012).

Research on recruitment in new ventures has begun to emphasize that job seekers use entrepreneurs' attributes as signals about the new venture to reduce information asymmetry and form their opinions (Chung & Parker, 2023; Hubner et al., 2023; Lewis & Cardon, 2020; Moser et al., 2017). As a company's founder and manager, an entrepreneur will often be the most visible and important member of a startup team; thus, their attributes can provide crucial signals (Chung & Parker, 2023; Ganotakis, 2012; Unger et al., 2011). Furthermore, new ventures frequently comprise small teams with flat organizational structures, necessitating close daily collaboration between employees and the entrepreneur. Therefore, job seekers pay particular attention to signals indicating the founder's distinct characteristics and capabilities to evaluate the attractiveness of the new venture (e.g., Backes-Gellner & Werner, 2007; Hubner et al., 2023).

Recent studies have highlighted the significance of entrepreneur's passion as a signal to stakeholders (Fu et al., 2022; Lewis & Cardon, 2020; Murnieks et al., 2016; Warnick et al., 2018). This passion is closely linked to both the entrepreneur's behavior and the venture's performance (Adomako & Ahsan, 2022; Baum et al., 2001; Drnovsek et al., 2016; Newman et

al., 2021), making it a valuable informational cue for inferring the potential treatment of employees and predicting the nature of the workplace environment. While most passion-related research has focused on investors (Chen et al., 2009; Mitteness et al., 2012; Murnieks et al., 2016; Shane et al., 2020; Warnick et al., 2018), evidence also suggests it can influence current employees (Breugst et al., 2012; Cardon, 2008; Hubner et al., 2020). Researchers have recently begun to explore the role of passion as a signaling mechanism for potential cofounders and prospective employees (Fu et al., 2022; Lewis & Cardon, 2020; Piva & Stroe, 2023).

Amid the demanding conditions of the entrepreneurial environment, entrepreneurs often develop an intense form of passion, specifically obsessive passion (Ho & Pollack, 2014; Newman et al., 2021; Stroe, Wincent, et al., 2018; Thorgren & Wincent, 2015). The dualistic model of passion differentiates between harmonious passion, in which the entrepreneurial activity is harmoniously integrated with other life activities, and obsessive passion, characterized by an exclusive focus on the entrepreneurial endeavor (Vallerand, 2010, 2015; Vallerand et al., 2003) in a manner that is uncontrolled and resembles addiction (Dalla Rosa & Vianello, 2020; Pollack et al., 2020; Stroe, Wincent, et al., 2018; Vallerand et al., 2019).

Previous research has provided an ambivalent view on whether signaling obsessive passion is perceived positively or negatively by various stakeholders. In investor relations, Murnieks et al. (2016) found that signaling obsessive passion can be persuasive, because it is often linked to qualities like tenacity, motivation, inspirational leadership, and commitment. Similarly, Fu et al. (2022) acknowledged the dual nature of obsessive passion in the entrepreneurial context and identified the distinct advantage its association with extreme tenacity and commitment provides for attracting potential co-founders. Although Piva and Stroe (2023) did not explicitly focus on obsessive passion, they did identify an inverted U-shaped relationship between the level of an entrepreneur's displayed passion and the attractiveness of the venture to job applicants, suggesting that excessively high passion can

negatively impact applicant attraction. However, to our knowledge, no study to date has specifically examined how job seekers perceive obsessive passion in entrepreneurs. We propose that this context differs significantly from that of investors or cofounders since potential employees would be subordinates directly dependent on the entrepreneur, which is why it requires distinct considerations.

We suggest that, for job seekers, perceptions of obsessive passion may negatively impact applicant attraction on average. Although obsessive passion can have positive associations with entrepreneurs, such as being inspirational leaders who are truly committed to their company and make every effort to drive their business to success, the negative features of obsessive passion should be rather repelling for average job seekers. According to Vallerand et al. (2003), obsessive passion is characterized by a pressured, constrained engagement in which individuals are driven by an internal compulsion that often supersedes other goals and activities (Bélanger et al., 2013b; Vallerand et al., 2003). This may result in “tunnel vision,” wherein entrepreneurs focus excessively on personal and venture performance, potentially leading prospective employees to fear that their needs may be neglected in an environment with constant pressure to meet ambitious goals.

Prioritizing venture performance above all else, an inability to psychologically disengage from their passion, and constant rumination on their business (Carpentier et al., 2012; Donahue et al., 2012; Pollack et al., 2020) may increase the likelihood of burnout in obsessively passionate entrepreneurs (De Mol et al., 2018; Fernet et al., 2014; Lalande et al., 2017; Pollack et al., 2020; Trépanier et al., 2014; Vallerand et al., 2010). Obsessively passionate individuals feel compelled and cannot control the pursuit of their passion; thus, they often work long hours that may result in emotional exhaustion and psychological distress (Bélanger et al., 2015; Lavigne et al., 2014; Pollack et al., 2020). Consequently, job seekers may fear that their health and well-being could be compromised by an expectation to match the entrepreneur’s obsessive work habit.

Furthermore, obsessively passionate entrepreneurs are likely to create a demanding work environment because obsessive passion is associated with rigid persistence (Vallerand, 2010; Vallerand et al., 2003) and a strict prioritization of the passionate activity, which oftentimes leads to interpersonal conflict (Jowett et al., 2013; Seguin-Levesque et al., 2003; Vallerand, 2015). Obsessively passionate entrepreneurs may exhibit tenacity but lack openness to external feedback. Research indicates that obsessive passion tends to steer entrepreneurial decision-making toward more causal logic (Stroe, Parida, et al., 2018). Such an environment characterized by interpersonal conflicts and rigid pursuit of venture performance might deter potential employees who value personal balance and interpersonal stability and harmony.

Obsessive passion is associated with extreme dedication and entrepreneurial commitment (Fisher et al., 2018; Fu et al., 2022; Vallerand, 2015). Although this likely affects venture performance positively, job seekers might fear that obsessive entrepreneurs as leaders with a great vision might create a work environment that has great ambitions but also constant pressure, work overload, and high expectations. Employees might see themselves being confronted with constant negative feedback when they are not unable to meet high expectations. Therefore, we posit the following:

Hypothesis 1. Perceived obsessive passion is negatively associated with employer attractiveness.

PE Fit: How Job Seekers' Characteristics Induce Advantageous Self-selection in Response to Perceived Obsessive Passion

The theoretical context discussed above highlights the ambivalence surrounding the perception of obsessive passion in entrepreneurs. Therefore, the factors that influence how individuals interpret this signal need to be explored. Traditional signaling theory does not comprehensively address receivers' interpretation process; however, recent advances in this domain have begun to integrate cognitive processes into signal interpretation (Drover et al.,

2018). This perspective suggests that personal characteristics play a crucial role in how signals are interpreted (Connelly et al., 2011), offering a nuanced understanding of how and why different job seekers might perceive a signal such as obsessive entrepreneurial passion in various contexts.

PE fit theory (Kristof, 1996; Kristof-Brown et al., 2005, 2023) is a conceptual foundation that provides a basis for systematically explaining why signals are perceived as positive by some and negative by others. PE fit theory posits that individuals seek alignment between their work environment and their personal attributes and that job seekers react more positively toward employers that fit well with their individual abilities and needs. Specifically, this fit can be conceptualized along two dimensions: demands–abilities fit and needs–supplies-fit (Edwards, 1991; Kristof, 1996; Kristof-Brown et al., 2005). Demands–abilities fit refers to the congruence between the qualifications and skills of an individual and the requirements of the work environment, while needs–supplies fit is realized when the work environment fulfills the individual’s personal needs and preferences.

Obsessive passion can be associated with different demands, such as rigid persistence, and supplies, such as inspirational leadership. According to PE fit theory, individuals with abilities and needs that align well with these specifications are likely to be attracted to obsessively passionate entrepreneurs, whereas those with characteristics that fit poorly with the signaled associations are likely to react negatively. We posit, and further develop below, that perceived obsessive passion in entrepreneurs is likely to appeal to individuals who are proactive, exhibit a high risk tolerance, and possess elevated entrepreneurial self-efficacy.

Moderating Role of Job Seekers’ Proactive Personality

A proactive personality is characterized by a dispositional tendency toward initiating change in one’s environment (Bateman & Crant, 1993; Crant, 1995), including actively pursuing opportunities, showing initiative, and demonstrating persistence in overcoming obstacles (Crant, 2000; Grant & Ashford, 2008). Proactive individuals are likely to resonate

with the characteristics of obsessive entrepreneurs as leaders owing to their tendency to seek opportunities, perform at high levels, take the initiative in problem-solving, and show adaptability, resilience, and flexibility under pressure.

Proactive employees have a propensity to seek opportunities and initiate change and consistently show above-average performance (Bateman & Crant, 1993; Crant, 2000; Seibert et al., 1999). Proactive individuals can be further defined by their agency and ability to overcome barriers through active engagement with challenges (Bateman & Crant, 1993; Crant, 2000), which mirrors the tenacity of obsessive leaders. Studies have linked a proactive personality with greater resilience and the ability to thrive in the workplace, even amidst disruptive challenges (Chen et al., 2021; Kleine et al., 2019), which aligns well with the ambitious and relentless focus of obsessive entrepreneurs in surmounting obstacles. Proactive individuals' skills in persisting and efficiently addressing problems fits the focused and performance-oriented nature and single-minded drive for success of obsessive entrepreneurs.

Moreover, their adaptability (Parker et al., 2006) and proactive approach to self-recovery (Sonnentag, 2003) may make proactive job seekers particularly well-suited to work with obsessively passionate entrepreneurs. Proactive individuals take preemptive steps to manage their recovery experiences, assuming responsibly for taking adequate rest periods and maintaining their health. This is essential when working with obsessively passionate entrepreneurs who often find it challenging to detach and recharge due to their propensity to ruminate on, and be consumed by, their business activities (Bredehorst et al., 2023; De Mol et al., 2018; Trépanier et al., 2014; Vallerand et al., 2010). Proactive individuals, with their capacity to replenish their energy and focus effectively on their work, are particularly well-suited to the demanding environment of working for an obsessively passionate entrepreneur. Therefore, we posit the following:

Hypothesis 2. A proactive personality moderates the effect of perceived obsessive passion on employer attractiveness. Specifically, a highly proactive personality makes the relationship positive.

Moderating Role of Job Seekers' Risk Aversion

Risk aversion refers to a preference for low-risk, highly secure situations over high-risk scenarios that may offer greater rewards. Individuals who are risk-averse tend to avoid job-related risks at all costs (Covin et al., 2020; Gomez-Mejia & Balkin, 1989; Moser et al., 2017; Sauermann, 2018). The type of work environment fostered by an obsessive entrepreneur does not align with the needs of risk-averse individuals who typically value personal balance and avoid major changes in their interpersonal environment, because any change naturally includes uncertainty. The compulsive work habits of obsessive entrepreneurs may create a culture of overwork and unpredictability that risk-averse individuals might perceive as potentially harmful. Interpersonal conflicts may arise (Jowett et al., 2013; Pollack et al., 2020; Vallerand, 2015) that disturb the harmony within work teams. Obsessively passionate entrepreneurs' relentless drive and potential disregard for employees' well-being could contribute to high staff turnover rates and an atmosphere in which risk-averse individuals struggle to adapt to constant changes and pervasive uncertainty. Thus, the high-stakes, high-reward nature of working with this type of entrepreneur is misaligned with risk-averse individuals' preferences.

Risk averse individuals prefer stability, durability, and low uncertainty. However, obsessively passionate entrepreneurs, whose identities are closely intertwined with their ventures, may frequently experiment with novel approaches and persistently strive to overcome obstacles in their pursuit of success. The entrepreneurial environment is laden with uncertainty, and such experimentation and perseverance carry a high risk of failure (McMullen & Shepherd, 2006; Shepherd et al., 2009). Obsessively passionate individuals, driven by their passion and with an identity that is contingent on performance, often choose challenging paths, endure significant uncertainty and risk, and may be reluctant to correct errors and change direction

(Vallerand, 2015), demonstrating rigid persistence that can lead to risky behavior (Newman et al., 2021). We post that risk-averse job seekers are likely to perceive an obsessive entrepreneur as a less attractive employer, as risk-aversion is typically associated with a preference for stable environments and uncertainty avoidance (Li & Tang, 2010; Opper et al., 2017). The tunnel vision and rigid persistence of an obsessive entrepreneur tends to heighten uncertainty and risk, as their obsessive passion leads them to prioritize performance and growth over stability and security, which is in stark contrast with a risk-averse employee's prioritization of job security and harmony. Therefore, we posit the following:

Hypothesis 3. Risk aversion moderates the effect of perceived obsessive passion on employer attractiveness. Specifically, high risk aversion enhances the negative relationship.

Moderating Role of Job Seekers' Entrepreneurial Self-Efficacy

Self-efficacy refers to a person's "beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives" (Wood & Bandura, 1989, p. 364). Within the entrepreneurial context, self-efficacy denotes the conscious belief in one's ability to successfully perform entrepreneurial tasks and activities (Chen et al., 1998). Job seekers with high entrepreneurial self-efficacy may find an obsessive entrepreneur to be an appealing potential leader, as they are likely to align with the performance-oriented environment and culture of excellence. Self-efficacy shapes one's choice of activities and levels of effort and persistence. Individuals with high self-efficacy believe in their capacity to excel and overcome challenges (Bandura, 1997). Obsessively passionate entrepreneurs typically set high standards for themselves, their ventures, and those around them, fostering a culture of excellence that recognizes and rewards outstanding performance. This culture aligns with the aspirations of those with high self-efficacy, who continuously strive to surpass the expectations of themselves and others. Individuals with distinct self-efficacy are likely to thrive even when confronted with constant

negative feedback, because their self-confidence, courage and drive will not be negatively affected by external feedback.

Furthermore, self-efficacious individuals may view an obsessive entrepreneur as an attractive employer due to perceived opportunities for learning and growth. Those with high self-efficacy often seek environments that offer continuous development opportunities, driven by an eagerness to learn and ambitions fueled by self-confidence (Wood & Bandura, 1989), and are likely to be eager to experiment and explore new avenues. An obsessively passionate entrepreneur can create an environment conducive to accelerated professional growth and rapid advancement. Their unconventional approaches in elevating their ventures can result in intense problem-solving scenarios, providing rich learning opportunities for those confident in their abilities to quickly learn and adapt. Therefore, we posit the following:

Hypothesis 4. Entrepreneurial self-efficacy moderates the effect of perceived obsessive passion on employer attractiveness. Specifically, a high level of entrepreneurial self-efficacy makes the relationship positive.

6.3 Methodology

Conjoint Experimental Design

We conducted a metric conjoint experiment to test our hypotheses. This methodology has been extensively used in entrepreneurship research for decomposing decision-making criteria (Grégoire et al., 2019; Lohrke et al., 2010; Shepherd & Zacharakis, 2018) and has a key advantage in its ability to simulate real-time decision-making. It can also mitigate the limitations associated with retrospective data and reliance on cross-sectional observations (Anderson et al., 2022; Antonakis et al., 2010; Shepherd & Zacharakis, 1999). In conjoint experiments, participants are shown a series of decision profiles, with manipulated independent and control variables, and asked to rate each one. In our experiment, each decision profile comprised a combination of three attributes: obsessive passion, financial

performance, and social performance. Each attribute was ranked as either low or high, resulting in six distinct decision profiles. Table 14 presents an overview of these attributes and their respective levels.

After providing informed consent, participants were asked to evaluate the attractiveness of startup companies as potential employers under the following set of assumptions. First, the early-stage venture was in an industry with a high growth potential and had a scalable business model and defensible competitive position. Second, the current team had all the necessary business expertise, to which they would add valuable contributions. Third, the open position is that of an employee. Fourth, all other relevant factors in evaluating employer attractiveness not described in the scenarios were deemed acceptable and constant across all scenarios. Fifth, they should imagine they have already been searching for a full-time job and have a few possibilities that meet their general criteria (e.g., attractiveness of tasks, location, remuneration and other benefits, working hours, break times, and the option to work from home). We articulated these assumptions to provide participants with a realistic picture of the application situation and ensure that all other factors not described were imagined to be constant and attractive.

In alignment with established practices in metric conjoint studies, we introduced a practice profile to acclimate participants to the experimental format, and we randomized the order of the decision profiles to avoid order bias (Hauswald et al., 2016; Moser et al., 2017). We fully replicated our decision profiles, in line with best practice recommendations in the field (Schüler, Anderson, et al., 2023; Shepherd & Zacharakis, 2018), leading to each participant evaluating a total of 16 profiles. A brief break was incorporated between the initial round of profiles and their replications to mitigate potential respondent fatigue.

Following a series of decision scenarios, we conducted a post-experimental survey designed to collect data on the moderator and control variables, enabling us to effectively test the hypothesized cross-level interactions. We undertook several steps when designing the

experiment to ensure validity and minimize potential bias. This process involved conducting interviews with representatives of our target group to inform the development of our research instrument. Specifically, we conducted five semi-structured interviews with potential startup employees to explore their perceptions of, and the meaning they associated with obsessively passionate entrepreneurs, as well as factors that influence their willingness to work for such individuals. Prior to initiating our large-scale data collection, we conducted a pilot test to assess the experiment's comprehensibility and length. For this, we invited five potential job seekers to engage in "thinking out loud" session as they completed the experiment (Ericsson, 2006; Ransdell, 1995; Simon & Ericsson, 1984). Their verbal protocols confirmed that the introductory description, study materials, and decision scenarios were understood as intended. Moreover, they affirmed that these components were perceived as realistic and meaningful, thereby reinforcing the validity of our experimental design.

Sample

We recruited participants for our study using the Prolific Academic (<https://prolific.co>) professional panel provider (Kundro & Nurmohamed, 2021; Mikolon et al., 2021; Sitzmann & Campbell, 2021), a platform known for its high-quality data and participant naivety (Peer et al., 2017). Our sample comprised U.S.-based job seekers who were native English speakers. Participants were informed they would receive US\$2.27 for taking part in a 15-minute study. Initially, 233 participants completed the experiment, of whom six were excluded for failing one of the attention checks. Subsequent data cleaning procedures, which included checks for careless responses, such as straight lining, predictable response patterns and answers provided too quickly or slowly (Meade & Craig, 2012) further refined our sample to 185 individuals. We excluded an additional four participants who were over the age of 67, the official retirement age in the U.S. (Social Security Administration, 2023). Thus, our final sample comprised 181 individuals, ranging in age from 18 to 66 years (mean = 42 years), of which

46% were female. The participants' work experience ranged from 0 to 45 years (mean = 16 years).

Experimental Factor Manipulations and Measurements

Dependent Variable

Participants rated the organizational attractiveness of the start-up employer profiles on a 7-point Likert scale, ranging from 1 = "very unattractive" to 7 = "very attractive." The item, "How attractive is this startup as a place of employment for you?" is based on Highhouse et al. (2003), as adapted by Moser et al. (2017).

Level 1 Independent Variable: Obsessive Passion (Manipulated in the Conjoint

Experiment)

We operationalized the obsessive passion manipulation following Murnieks et al. (2016). The description of high and low obsessive passion centered on the extent to which entrepreneurship was an entrepreneur's primary identifying characteristic, as well as if that entrepreneur exerted control and established a balance between entrepreneurship and other life areas. Table 14 shows all attributes, levels, and descriptions.

Level 1 Controls (Manipulated in the Conjoint Experiment)

Two additional manipulated variables were included in the profiles. The performance of a startup is likely to strongly affect the general perception of its potential and attractiveness; therefore, we included two performance indicators as controls: a financial performance indicator, which we developed based on studies on new venture performance by Fultz and Hmieleski (2021) and Stam and Elfring (2008), and a social performance indicator based on the corporate social performance measurement scale used by Jones et al. (2014).

Table 14. Description of attributes and levels used in the conjoint profiles

Attribute	Level	Description
Obsessive passion of the main founder	High	The founder is obsessed with being an entrepreneur. Furthermore, the founder whose identity is primarily defined by the entrepreneurial role, sometimes becomes so excited about being an entrepreneur that it leads to losing control over the ability to work on anything else. The founder often feels guilty when not working on the business and has difficulty imagining life outside of entrepreneurship.
	Low	Although the founder enjoys being an entrepreneur, this role isn't central to the founder's identity. The founder finds being an entrepreneur a fulfilling career without becoming obsessed with it. Moreover, the founder appreciates building a company without feeling compelled to dedicate all their time to the business, aiming for a balanced life and relishing other activities alongside entrepreneurship.
Financial performance of the startup company	High	The venture exhibits strong sales growth and an expanding workforce. The venture currently yields above-average profits.
	Low	The venture exhibits modest sales growth and has been careful about expanding the workforce. The venture currently yields modest profit with room for improvement.
Social performance of the startup company	High	The venture successfully implements a strong social and sustainability vision within its business model, generating significant positive social impact. Through its activities, the venture addresses pressing social problems, and its policies and actions demonstrate a genuine concern and commitment to all living beings and the environment.
	Low	The venture and its business model are not primarily focused on addressing social or sustainability issues. While the venture is mindful of social and environmental concerns (e.g., endeavors to minimize its carbon footprint), its main purpose is not centered on resolving social and environmental problems.

Level 2 Moderator Variables (Measured in the Post-experiment Survey)

Proactive personality, risk aversion, and entrepreneurial self-efficacy were included to test the cross-level moderations specified in Hypotheses 2, 3, and 4. Measurement details can be found in Appendix C. The first two were measured using a 7-point Likert scale ranging from 1 = “strongly disagree” to 7 = “strongly agree.” The proactive personality measurement included 10 items (Cronbach’s $\alpha = 0.93$), following Seibert et al. (1999) and used recently in applicant attraction research (e.g., Schüler, Franzke, et al., 2023). An example item is “I excel at identifying opportunities.” We measured risk aversion with four items used in Moser et al. (2017) (Cronbach’s $\alpha = 0.77$), based on the measurement in Gomez-Mejia and Balkin (1989). An example item is “I view risk on a job as a situation to be avoided at all costs.” For entrepreneurial self-efficacy, we used a measure from Wilson et al. (2007) consisting of six items asking participants to rate themselves compared to their peers; one example is, “Being able to solve problems” (Cronbach’s $\alpha = 0.83$). Answers were collected on a 7-point Likert scale ranging from 1 = “much worse” to 7 = “much better.”

Level 2 Controls (measured in the post-experiment survey)

In line with previous research on new venture recruitment (Moser et al., 2017; Piva & Stroe, 2023; Van Balen & Tarakci, 2023), we included participants’ age and gender as control variables. In addition, following prior research on applicant attraction to new ventures (e.g., Hubner et al., 2023), we included the willingness to work for a startup as a control variable. The general intention and interest to work for a startup likely influences the perceived attractiveness of a potential startup founder as an employer. The literature shows that individuals who join startups tend to have particular characteristics and preferences (Engel et al., 2023; Sauermann, 2018).

6.4 Results

Our data consist of 2,896 observations from 181 individuals across 16 decision profiles. The mean-retest reliability was 0.72. We proceeded according to the workflow proposed by Schüler, Anderson et al. (2023) and calculated the intraclass correlation coefficient (ICC) 3k for each presented profile. The values indicate high reliability throughout. Slope difference tests and did not show any significant differences between the original and the replication data collection rounds. These results suggest the reliability of participant responses and shows that they understood the attributes in the experiment as intended; therefore, we use all collected observations (see Appendix C). Confirmatory factor analysis of the level-2 moderators suggests an acceptable fit (Chi-square (df) = 445.84 (167); $p < 0.001$; CFI = 0.86; SRMR = 0.067). Factor loadings range from 0.65 to 0.87. We excluded one item from the entrepreneurial self-efficacy scale due to a poor factor loading of 0.44 (see Appendix C). We used the workflow $CI_{CFA}(sys)$ as proposed by Rönkkö and Cho (2022) to evaluate discriminant validity. None of the upper limits of the confidence intervals of the factor correlations exceeded the value of 0.9, suggesting no significant problems with discriminant validity.

Table 15 shows the means, standard deviations, variance inflation factors (VIFs), correlations, and Cronbach's alpha values for the level-2 variables; none of the correlations exceeded 0.7 (Anderson et al., 2008). The VIFs were all below 3, indicating that multicollinearity was a negligible concern (Kutner et al., 2005; O'Brien, 2007). Table 16 shows our regression results.

Table 15. Descriptive statistics: means, standard deviations and correlations

Variable	M	SD	VIF	1	2	3	4	5	6
1 Organizational attractiveness	4.28	1.77							
2 Self-efficacy	4.82	1.06	2.06	.01	(.83)				
3 Proactive personality	4.96	1.07	2.15	-.00	.70**	(.93)			
4 Risk aversion	4.38	1.12	1.22	-.00	-.38**	-.40**	(.77)		
5 Age	39.99	12.32	1.04	-.02	.16**	.04*	-.09**		
6 Gender ^a	0.46	0.50	1.01	-.05*	-.04*	-.03	.00	.02	
7 Willingness to work for a startup ^b	0.65	0.48	1.08	.04*	.12**	.22**	-.17**	.11**	-.09**

Note. N = 181. ^a 1 = female, 0 = male. ^b 1 = yes, 0 = no. M = Mean. SD = Standard deviation. VIF = Variance inflation factor. Cronbach's alphas are reported in parentheses along the diagonal.

* $p < .05$

** $p < .01$

Table 16. Results of the multi-level regression analysis

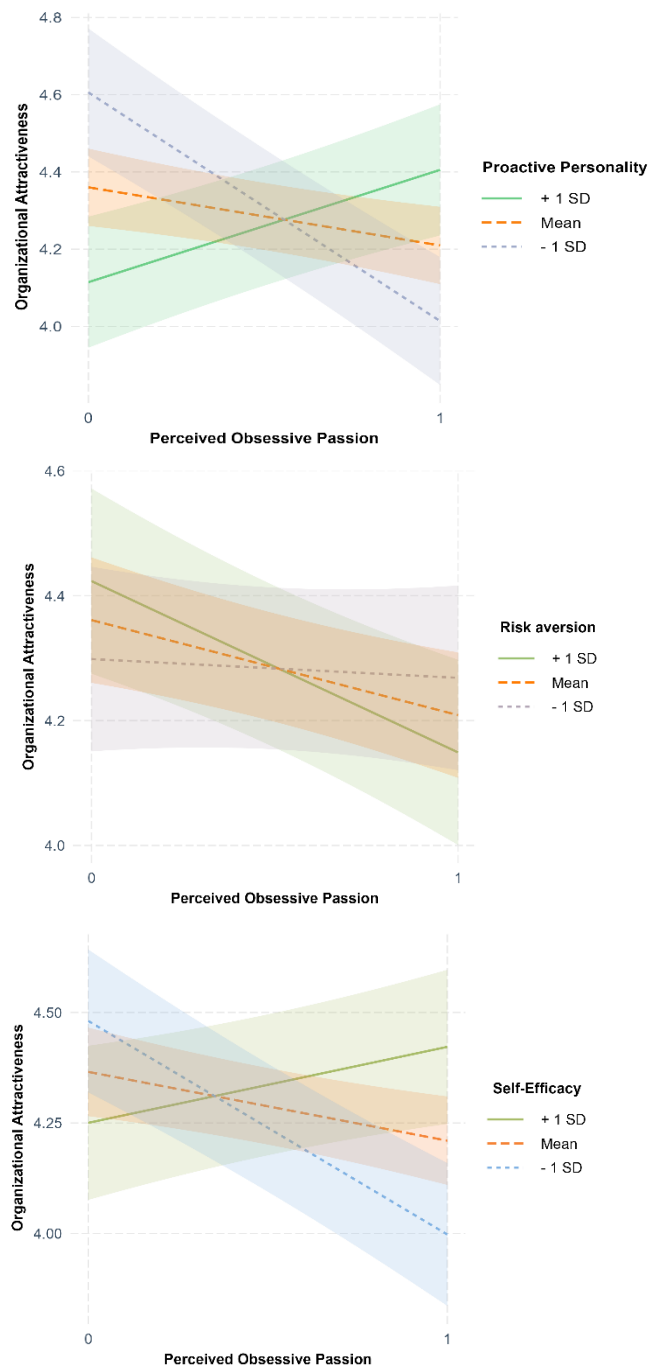
Variable	Model 1 (RIFS)			Model 2 (RIRS)			Model 3 (RIRS)			Model 4 (RIRS)			Model 5 (RIRS)		
	b (β)	SE	p	b (β)	SE	p	b (β)	SE	p	B (β)	SE	p	B (β)	SE	p
Intercept	3.05 (-0.00)	0.17	0.000	3.03 (0.00)	0.17	0.000	3.05 (0.00)	0.17	0.000	3.03 (0.00)	0.17	0.000	3.03 (0.00)	0.17	0.000
<i>Level 1 Variable</i>															
Perceived obsessive passion	-0.15 (-0.04)	0.05	0.004	-0.15 (-0.04)	0.05	0.004	-0.15(-0.04)	0.05	0.003	-0.16 (-0.04)	0.05	0.002	-0.16 (-0.04)	0.05	0.002
<i>Level 1 Controls</i>															
Financial performance	1.66 (0.47)	0.05	0.000	1.66 (0.47)	0.05	0.000	1.66 (0.47)	0.05	0.000	1.66 (0.47)	0.05	0.000	1.66 (0.47)	0.05	0.000
Social performance	1.17 (0.33)	0.05	0.000	1.17 (0.33)	0.05	0.000	1.17 (0.33)	0.05	0.000	1.17 (0.33)	0.05	0.000	1.17 (0.33)	0.05	0.000
<i>Level 2 Controls</i>															
Age	-0.00 (-0.03)	0.00	0.274	-0.00 (-0.02)	0.00	0.330	-0.00 (-0.03)	0.00	0.293	-0.00 (-0.02)	0.00	0.396	-0.00 (-0.02)	0.00	0.396
Gender ^a	-0.13 (-0.04)	0.09	0.142	-0.11 (-0.04)	0.09	0.220	-0.13 (-0.04)	0.09	0.140	-0.13(-0.04)	0.09	0.147	-0.13 (-0.04)	0.09	0.147
Willingness to work for a startup	0.17 (0.05)	0.10	0.076	0.16 (0.04)	0.09	0.087	0.17 (0.05)	0.10	0.075	0.16 (0.04)	0.09	0.090	0.16 (0.04)	0.09	0.090
<i>Level 2 Variables</i>															
Proactive personality ^b	-0.05 (-0.03)	0.06	0.450	-0.06 (-0.03)	0.06	0.328	-0.27 (-0.03)	0.07	<0.001	-0.05 (-0.03)	0.06	0.470	-0.05 (-0.03)	0.06	0.470
Risk aversion ^b	0.01 (0.01)	0.05	0.851	0.01 (0.01)	0.05	0.774	0.01 (0.01)	0.05	0.819	0.07 (0.00)	0.06	0.218	0.02 (0.01)	0.05	0.650
Self-efficacy ^b	0.05 (0.03)	0.06	0.456	0.07 (0.04)	0.06	0.237	0.05 (0.03)	0.06	0.453	0.05 (0.03)	0.06	0.456	-0.10 (0.03)	0.07	0.132
<i>Cross-level interactions</i>															
Perceived obsessive passion × Proactive personality ^b							0.44 (0.12)	0.05	0.000						
Perceived obsessive passion × Risk aversion ^b										-0.12 (-0.03)	0.05	0.019			
Perceived obsessive passion × Self-efficacy ^b													0.33 (0.09)	0.05	0.000
<i>Variance components</i>															
Residual variance σ^2		1.87			1.87			1.82			1.87			1.85	
Intercept variance τ_{00}		0.22			0.19			0.22			0.22			0.20	
Slope variance τ_{11}					0.01/0.03/0.00			0.00			0.00			0.02	
Slope covariance ρ_{01}					-0.80/0.67/-0.37			1.00			-1.00			0.42	
Marginal R ² / Conditional R ²		0.334 / 0.405			0.334 / 0.405			0.350 / 0.421			0.335 / 0.406			0.342 / 0.414	

Note. N of observations = 2896. N of participants = 181. ICC (Null-Model) = 0.54. Maximum-likelihood estimations. b = unstandardized regression coefficient. β = standardized beta coefficient. SE = standard error. RIFS = Random intercept fixed slope model. RIRS = Random intercept random slope model. p = p-value. ^a Gender: 1 = female; 0 = male; ^b z-standardized predictors.

To avoid bias resulting from the nested data structure, we applied multilevel regression analyses (Raudenbush & Bryk, 2002) and followed the steps recommended by Aguinis et al. (2013) to build our models. We report conditional and marginal R^2 statistics of the explained variance (Nakagawa & Schielzeth, 2013). First, we computed a null model to test the nested nature of our data, which revealed an ICC of 0.05, which is slightly lower than reported in other studies (e.g., Aguinis et al., 2013) but justifies a multilevel model (Hayes, 2006). Second, we computed a random intercept fixed slope (RIFS) model and a random intercept random slope (RIRS) model, both of which show the same effects and have a marginal and conditional R^2 of 0.334 and 0.405, respectively. Finally, we calculated cross-level interaction models, including the level-2 moderator variables of proactive personality, self-efficacy, and risk aversion. These show higher R^2 and conditional R^2 values compared to the RIFS and RIRS models, ranging from 0.335 to 0.350 and 0.406 to 0.421, respectively.

Hypothesis 1 posits that the obsessive passion of an entrepreneur is negatively associated with the organizational attractiveness of a new venture. In Table 16, Model 1 shows a significant, negative effect ($b = -0.15$, $p = 0.004$, CI $[-0.25, -0.05]$), supporting Hypothesis 1. However, the standardized effect ($\beta = -0.04$), however, suggests that the overall effect size is quite small on average.

Hypotheses 2, 3, and 4 address the potential moderation effects. We plotted all the interaction effects, calculated simple slopes and z -standardized the values of the moderator variables to facilitate interpretation. Figure 12 shows the moderation effects.



Note. Simple slopes of perceived obsessive passion predicting organizational attractiveness for 1 standard deviation above and below the mean (–1 SD and +1 SD) for proactive personality, self-efficacy, and risk aversion, with 95% confidence regions around the effect.

Figure 12. Simple slopes of perceived obsessive passion predicting organizational attractiveness depending on the moderators proactive personality, self-efficacy, and risk aversion

Hypothesis 2 proposes that a proactive personality moderates the effects of obsessive passion on organizational attractiveness. The results of Model 3 in Table 16 show a significant interaction effect ($b = 0.44, p = 0.000, CI [0.34, 0.54]$). Figure 12 depicts the simple slopes showing a positive relationship for a highly proactive personality and a negative relationship for low levels of proactive personality. Simple slope analysis reveals that the slope is positive and significant for high values (+1 SD above the mean) of proactive personality ($b = 0.29, p = 0.000, CI [0.15, 0.43]$) and negative and significant for low values (-1 SD below the mean) of proactive personality ($b = -0.59, p = 0.000, CI [-0.73, -0.45]$), thereby supporting Hypothesis 2.

Hypothesis 3 predicts that risk aversion moderates the effect of obsessive passion on organizational attractiveness. The results of Model 4 in Table 16 show a significant interaction effect ($b = -0.12, p = 0.019, CI [-0.22, -0.02]$). Figure 12 is a graphical representation of the simple slopes and shows that the slope becomes more negative for high values of risk aversion. Simple slope analyses reveals that the slope is negative and significant for high values (+1 SD above the mean) of risk aversion ($b = -0.27, p = 0.000, CI [-0.42, -0.13]$); however, no significant results were found for low levels of risk aversion (-1 SD below the mean: $b = -0.03, p = 0.692, CI [-0.17, 0.12]$). This suggests that Hypothesis 3 is partially supported.

Hypothesis 4 posits that self-efficacy moderates the effects of obsessive passion on organizational attractiveness. The results of Model 5 in Table 16 show a significant interaction effect ($b = 0.33, p = 0.000, CI [0.23, 0.43]$). Figure 12 shows that while negative for low self-efficacy values, the slope is positive for high values. Simple slope analysis reveals a positive significant result for high levels (+1 SD above the mean) of self-efficacy ($b = 0.18, p = 0.015, CI [0.03, 0.32]$) and a negative and significant result for low levels (-1 SD below the mean) of self-efficacy ($b = -0.48, p = 0.000, CI [-0.62, -0.34]$), thereby supporting Hypothesis 4.

Our results provide broad support for the predicted hypotheses and empirical evidence for the type of job seekers who are attracted to or deterred by an obsessively passionate entrepreneur. Potential employees with high entrepreneurial self-efficacy and a proactive personality find startups led by an obsessively passionate entrepreneur attractive, whereas risk-averse individuals find these companies to be less attractive and are more likely to decline a job offer from them. Overall, this shows that signaling obsessive passion during the recruiting process for a new venture is worthwhile because it induces an advantageous self-selection process that will attract the desired applicants.

6.5 Discussion and Implications

The primary objective of this paper was to shed light on the question of whether entrepreneurs' obsessive passion serves as a signal in startup recruitment and, if so, the types of applicants it attracts and repels. In this regard, we found that, while obsessive passion does not act as a universal attractor to job seekers, it serves as a strong self-selection signal that attracts proactive individuals who have a propensity for risk-taking and high levels of entrepreneurial self-efficacy. The implications of our study suggest that the expression of obsessive passion by entrepreneurs plays a critical role in shaping the composition of their workforce, aligning it with the unique demands and dynamic nature of a new venture.

Theoretical Implications

First, our study contributes to the body of research on the effects of perceived passion on new venture stakeholders (Chen et al., 2009; Fu et al., 2022; Hubner et al., 2020; Lewis & Cardon, 2020; Mitteness et al., 2012; Murnieks et al., 2016; Piva & Stroe, 2023; Warnick et al., 2018). Notably, perceived passion has been identified as having powerful interindividual effects, such as being contagious and enhancing employer commitment (Breugst et al., 2012; Cardon, 2008; Hubner et al., 2020). While most research has focused on its impact on investor relations (Li et al., 2017; Mitteness et al., 2012; Murnieks et al., 2016; Warnick et al., 2018),

there is also a recognition of the boundary conditions on the effects of perceived passion. For example, excessively high levels of passion might be perceived negatively, with those concerns mitigated only when founders exhibit an openness to feedback (Warnick et al., 2018).

More recently, researchers have begun to explore the role of passion as a recruitment signal for new ventures (Lewis & Cardon, 2020; Piva & Stroe, 2023). The study of Lewis and Cardon (2020) found passion for the product and company growth enhances employer attractiveness and can compensate for limited human capital, while Piva and Stroe (2023) identified a curvilinear effect of passion on employer attractiveness, with medium levels having a positive association and excessively high levels being detrimental. We extend these findings by demonstrating that while the general perception of an entrepreneur's obsessive passion is associated with lower employer attractiveness, this effect is reversed for proactive job seekers with high levels of entrepreneurial self-efficacy; conversely the negative perception is amplified for risk-averse individuals. This highlights that obsessive passion can be strategically utilized as a recruitment signal, reinforcing the importance of the characteristics of the individuals perceiving and interpreting this signal and echoing previous studies focused on different stakeholder groups (Mitteness et al., 2012; Murnieks et al., 2016).

Our study also adds to the research on passion within the broader fields of entrepreneurship, organizational behavior, and psychology (Astakhova et al., 2022; Pollack et al., 2020; Vallerand et al., 2019; Zhao & Liu, 2023). Traditionally, obsessive passion has been viewed as dysfunctional, with its negative consequences being highlighted in entrepreneurial, work, and leisure contexts (De Mol et al., 2018; Ho & Pollack, 2014; Pollack et al., 2020; Vallerand, 2015), though a few studies have identified positive aspects of obsessive passion, such as its role in signaling tenacity and perseverance to stakeholders such as investors (Murnieks et al., 2016) and potential cofounders (Fu et al., 2022). We contribute to the ongoing discourse about the ambiguities regarding obsessive passion (Pollack et al., 2020) by

identifying boundary conditions that influence its effects. Our research underscores the significance of the characteristics of the perceiver in a recruitment context in determining whether obsessive passion is viewed positively or negatively; this aligns with the findings of Fu et al. (2022), who noted that an individual's own obsessive passion can lead to a more positive perception of obsessive passion in others.

Furthermore, our findings make a contribution to research on new venture recruitment (Greer et al., 2016; Hubner et al., 2023; Moser et al., 2017; Sauermann, 2018; Van Balen & Tarakci, 2023). Prior studies have highlighted the challenges that new ventures face in the competitive talent market and underscored the need for strategic actions, leveraging their unique strengths to build a competitive advantage (Greer et al., 2016; Hayton, 2003; Williamson et al., 2002). The recruitment of employees who are not only qualified but are also a good fit with the entrepreneurial context is critical for the success of new ventures (Engel et al., 2023; Moser et al., 2017; Sauermann, 2018). Such candidates are job seekers with entrepreneurial motives and mindsets who are equipped to meet the demands of the entrepreneurial environment (Moser et al., 2017; Sauermann, 2018). Our study demonstrates that entrepreneurs can signal their obsessive passion to specifically attract individuals with the desired traits, thereby establishing a competitive edge in the talent acquisition arena. By signaling obsessive passion, entrepreneurs attract proactive and self-efficacious individuals deterring those who are risk-averse. This approach effectively pre-selects their applicant pool, enhancing their appeal to those who are most suitable and valuable for the success of the venture.

Finally, our study offers a theoretical contribution on the intersection of signaling and PE fit theory. The signaling literature is comparatively silent on how ambiguous signals are processed and why some individuals react positively to a given signal while others are repelled (Schüler, Franzke, et al., 2023). Entrepreneurs' obsessive passion offers a compelling use case to delve into this problem and elaborate how signal ambivalence related to obsessive

passion is resolved by factors that systematically align with PE fit reasoning. Our empirical study also confirms and expands upon recent conceptual notions regarding the cognitive processing of signals (e.g., Drover et al., 2018). In contrast to the previous discourse, we focus not on signal salience, but rather the later and more behavioral steps in the employer appraisal process. Our theorizing thus enables an enhanced understanding that signals are not only differently regarded and received depending on individual characteristics but also that those characteristics influence information processing after a signal has been received.

Practical Implications

Recruiting high-quality employees poses a significant challenge for new ventures, particularly because they require people with distinct entrepreneurial competencies and capabilities that align with the unique demands of such environments. Our study sheds light on a signaling mechanism that effectively attracts individuals with high entrepreneurial self-efficacy and proactive personalities while simultaneously deterring those who are risk-averse. By strategically signaling obsessive passion, entrepreneurs can enhance their ability to attract candidates whose skills and traits are well-matched to the dynamic needs of a growing new venture. Our findings suggest a more balanced view of obsessive passion, and thereby assisting entrepreneurs in recognizing and leveraging its benefits for effective new venture recruitment.

6.6 Limitations and Avenues for Future Research

While our study provides valuable insights, it is not without limitations, which open avenues for future research. Our investigation encompassed three key elements of the specific human capital essential in a new venture context. Although we cover a broad range of elements, such as opportunity recognition, problem-solving abilities, and entrepreneurial self-efficacy scale, there are other individual-level characteristics that new ventures must attract. Future studies could focus on strategies to attract creative job seekers to new ventures and

delve into the underlying mechanisms and potential mediators of the relationship between perceived obsessive passion and organizational attractiveness. Investigating the reasons and processes (attributions, perceptions, sense-making) that lead job seekers to perceive obsessively passionate entrepreneurs in specific ways could yield insightful findings, while employing qualitative methods could provide a deeper understanding of the sense-making processes that influence evaluations of employer attractiveness.

Our findings are based on a U.S. sample, and it is clear that labor market conditions in developing countries would likely produce quite different results regarding the perception of organizational attractiveness. While our study is situated within the entrepreneurship context, its applicability to other contexts may be limited. However, it could be very fruitful to compare our results to other contexts and test for generalizability. In particular, the entrepreneurship context has revealed a positive signaling effect of perceived obsessive passion (Fu et al., 2022; Murnieks et al., 2016), which might not apply to other contexts. We encourage further research that digs deeper into the uniqueness of obsessively passionate entrepreneurs compared to other potential employers.

6.7 Conclusion

New ventures depend on human capital for growth and success. This study investigates how job seekers perceive the attractiveness of obsessively passionate entrepreneurs as potential employers. Our findings reveal that such entrepreneurs have an advantage in attracting job seekers with high levels of entrepreneurial self-efficacy and a proactive personality. Conversely, job seekers who display low levels of these characteristics or are strongly risk-averse, tend to be repelled by the prospect of working for an obsessively passionate entrepreneur.

CHAPTER VII: CONCLUSION

7.1 Summary and Integration of the Main Findings

This dissertation investigates passion in entrepreneurship and is guided by three research questions, providing insights into the role of passion as a resource, its dynamic development, and the ambiguities associated with obsessive passion. Figure 13 summarizes the findings concerning these three questions.

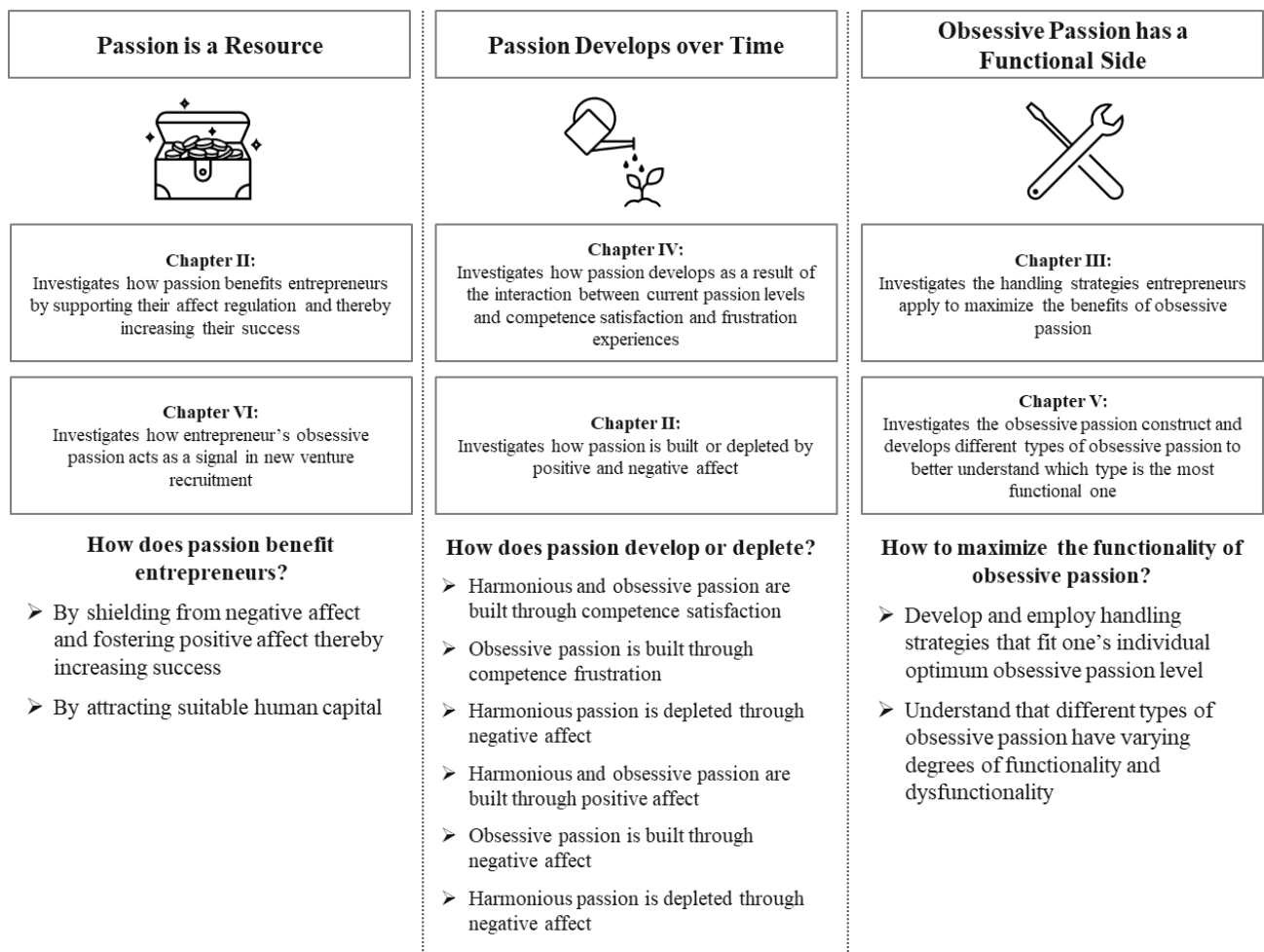


Figure 13. Integration of main findings

First, this dissertation conceptualizes passion as a multifaceted and dynamic resource for entrepreneurs. Our findings show that this resource is beneficial to entrepreneurs since it has an affect-regulatory function. By differentiating between harmonious and obsessive passion, we provide evidence for how these forms of passion regulate affect differently and suggest various pathways indicating how passion leads to entrepreneurial success. This perspective offers insights into how passion is a valuable tool for entrepreneurs that helps them manage their affective states and clarifies the diverse functioning of different types of passion (harmonious and obsessive).

We found that harmonious and obsessive passion upregulate positive affect and enhance entrepreneurial success through this pathway. However, only harmonious passion is protective and supports entrepreneurs in decreasing their negative affect, further increasing their perceived success. Similarly, this dissertation emphasizes the benefits of passion on an interindividual level, specifically the positive role of passion as a recruitment signal for new ventures. Our findings demonstrate how entrepreneurs' obsessive passion can be a strategic signal for attracting proactive job seekers and those with high entrepreneurial self-efficacy, while repelling risk-averse individuals.

Second, this dissertation investigates mechanisms of passion development. To do so, we integrate the dualistic model of passion (Vallerand et al., 2003) with the conservation of resources theory (Halbesleben et al., 2014; Hobfoll et al., 2018) to explain how passion is built and depleted through competence satisfaction and competence frustration experiences. This perspective helps us understand why passion sometimes fades or grows over time. This theoretical combination introduces the self-regulating function of harmonious passion and self-enhancing function of obsessive passion, which helps explain why some entrepreneurs stay passionate and dedicated over time and why entrepreneurs' passion sometimes vanishes.

Harmonious and obsessive passion are both driven by competence satisfaction and frustration experiences, but in different ways. Harmonious passion tends to be self-regulating, aiming to achieve an equilibrium (i.e., a balanced level). When it is already high, the building effect of competence satisfaction experiences is weaker. When harmonious passion is low, then it is built. Contrastingly, obsessive passion intensifies in response to both competence satisfaction and frustration experiences, and it has a self-enhancing effect, such that the higher the current obsessive passion level, the more it is built up. Furthermore, viewing passion as a psychological resource can explain how passion is influenced by affective experiences. These findings clarify the reciprocal relationship between passion and affect, showing how passion is both influenced by and influences emotional experiences. This approach thus deepens our understanding of the ongoing development of passion beyond its initial creation.

Third, this dissertation highlights the positive role of obsessive passion in the entrepreneurial context. The findings contribute to passion literature by illustrating that obsessive passion is not solely harmful but can enhance entrepreneurial success by promoting positive affect. This contributes to a more nuanced understanding of obsessive passion, suggesting that harmonious and obsessive passion are not direct antagonists, but both have their unique value and functioning.

In this context, this dissertation shows how entrepreneurs are active agents in changing and managing their obsessive passions. We establish that cognitive perception and self-awareness are crucial prerequisites for this process. Our findings also show that entrepreneurs can consciously use strategies to modify their obsessive passion, maximizing its positive consequences. That is, entrepreneurs regulate their obsessive passion according to their own goals and perceptions to achieve their optimum obsessive passion level.

This dissertation also offers a new taxonomy of obsessive passion types based on the differing degrees of constrained internalization. This new categorization system helps clarify

the mixed findings for obsessive passion in entrepreneurship (De Mol et al., 2018; Fisher et al., 2018; Fu et al., 2022; Ho & Pollack, 2014; Pollack et al., 2020), showing that each type has varying degrees of functionality and dysfunctionality. Overall, we suggest that passion is a valuable, dynamic, and multifaceted resource for entrepreneurs.

7.2 Theoretical Implications

This dissertation enriches the discourse on passion in entrepreneurship, offering new insights into its complex, multifaceted nature, functioning, and dynamics. Furthermore, we provide some practical applications for entrepreneurs. Overall, our findings contribute in numerous ways to entrepreneurship, and broader organizational, and psychology literature.

The study in Chapter II, “Passion in Entrepreneurship: Its Role as a Resource Helping Entrepreneurs Succeed Through its Affect-Regulatory Function,” contributes to research on passion by conceptualizing passion as a dynamic resource. Contrary to the common perception of obsessive passion as solely negative (Curran et al., 2015; De Mol et al., 2018; Pollack et al., 2020; Vallerand, 2003; Vallerand et al., 2010), our findings provide a more nuanced understanding of obsessive passion. We reveal that it can enhance entrepreneurial success by fostering positive affect.

Our study positions harmonious and obsessive passion as unique psychological resources, each functioning differently and benefiting entrepreneurs. By doing so, we offer a theoretical foundation and empirical evidence for how obsessive passion can play a positive role in entrepreneurial endeavors. In addition, we highlight the functional aspect of obsessive passion, as indicated by prior research (e.g., Fisher et al., 2018; Fu et al., 2022). Since we conceptualize passion as a psychological resource, we can model it as an outcome of affect. This approach shifts the focus from passion’s static nature to its dynamic development (Bredehorst et al., 2023; Collewaert et al., 2016; Lex et al., 2022). Our findings underscore the importance of affective experiences in the development of passion, highlighting that these

experiences can act as precursors to passion, not only as outcomes. This perspective regards passion as a dynamic and fluid resource, suggesting that it undergoes significant changes over short periods resulting from reciprocal relationships with positive and negative affect. Furthermore, this study introduces the new function of passion as an affect regulator. We differentiate between harmonious and obsessive passion and show how both can influence an entrepreneur's affective states. Harmonious passion has been shown to shield against negative affect, whereas both amplify positive affect and, thereby, enhance entrepreneurial success. These findings highlight the complexity, varying and unique functioning of harmonious and obsessive passion as they relate to entrepreneurial success.

“Handling the Beast: How Entrepreneurs Deal with Their Obsessive Passion,” the study reported in Chapter III, emphasizes that individuals can actively manage their obsessive passion. We establish that the cognitive awareness and conscious perception of obsessive passion are necessary for actively handling passion. Conscious awareness is the catalyst that triggers an evaluation process, enabling entrepreneurs to advance toward their optimal obsessive passion level. Therefore, we contribute to self-regulation theories, which posit that individuals need self-awareness—as a prerequisite—to then constantly monitoring their progress and taking corrective action as necessary (Bandura, 1989; Carver & Scheier, 1981, 2000; Lord et al., 2010). We argue that obsessive passion should be regarded as a valuable tool—when managed well—that can be intentionally employed to support entrepreneurial endeavors. That is, we propose advancing toward a more active, powerful view of passionate individuals.

The study “Passionate Today, Passionate Tomorrow? Examining the Self-Regulating and Self-Enhancing Functions of Passion” is described in Chapter IV. It adopts the novel passion-as-a-resource perspective. This theoretical lens transcends traditional frameworks investigating passion development over time (e.g., Collewaert et al., 2016; Gielnik et al.,

2015, 2017; Kakarika et al., 2022), providing insights into how passion—harmonious or obsessive—is a resource that can be built up or depleted. We explain the mechanisms by which this happens by establishing competence satisfaction and frustration as antecedents of passion, which interact with the type of passion (harmonious or obsessive) and the current passion level.

Furthermore, we add to existing theoretical frameworks of passion development (Carpentier & Mageau, 2019; Mageau et al., 2009; Vallerand et al., 2014) by providing a comprehensive analysis of the similarities and differences in their development over time. Our results suggest that they are both driven by competence satisfaction experiences. However, while harmonious passion demonstrates a self-regulating function, leading to a balanced building process with a natural boundary, obsessive passion—due to its self-enhancing function—increases cumulatively due to competence satisfaction or frustration experiences. That is, obsessive passion is driven by competence satisfaction and frustration experiences; the higher the current level, the more it grows. Therefore, we offer a theoretical explanation why competence frustration can sometimes lead to passion depletion (in the case of harmonious passion), while other times, it fuels passion (in the case of obsessive passion).

The self-regulating and self-enhancing functions of passion elucidate why harmonious passion remains in balance with other life areas, while obsessive passion tends to accumulate and overpower other areas over time. This is because the passion of obsessively passionate entrepreneurs tends to intensify over time, regardless of whether their competence experiences are positive or negative. By investigating passion development from a passion-as-a-resource perspective, we add to prior literature on resource gain and depletion processes (Fredrickson, 2001; Fredrickson & Joiner, 2002; Halbesleben et al., 2014; Hobfoll et al., 2018; Llorens et al., 2007; Mäkikangas et al., 2010). We show that the current level of a resource critically influences how it is affected by building factors like competence

satisfaction and frustration. We suggest that some resources accumulate without limits, while others may have unique boundary conditions constraining their accumulation.

The theoretical contribution of the article presented in Chapter V, “Illuminating the Dark Side: Uncovering the Layers of Obsessive Passion in Entrepreneurship,” is an advancement of the obsessive passion construct. We develop a taxonomy comprising four obsessive passion types based on the degrees of controlled internalization from organismic integration theory, a sub-theory of self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017, 2020). Our classification system complements the existing dualistic model of harmonious and obsessive passion (Vallerand, 2003; Vallerand et al., 2010) by providing a more nuanced understanding of the latter. We argue that the distinct types of obsessive passion have varying degrees of functionality and dysfunctionality based on the degree of their constrained internalization.

Furthermore, we elaborate on the unique drivers and outcomes of each type. For instance, certain types of obsessive passion, especially those with a higher degree of internalization, are expected to have more beneficial and less harmful consequences for entrepreneurs. Integrated obsessive passion is characterized by the highest degree of internalization and may thus lead to consequences similar to harmonious passion while remaining theoretically distinct due to the underlying constrained internalization process.

Chapter VI comprises the study entitled “Attracted or Repelled? Investigating Job Seekers’ Perceptions of Obsessive Entrepreneurs,” contributing to the literature in the following ways. The results add to the existing literature on the effects of perceived passion on new venture stakeholders (e.g., Chen et al., 2009; Fu et al., 2022; Hubner et al., 2020; Mitteness et al., 2012; Murnieks et al., 2016). While previous studies have primarily focused on investor relations (e.g., Mitteness et al., 2012; Murnieks et al., 2016; Warnick et al., 2018), we suggest passion is a powerful recruitment signal (Fu et al., 2022; Lewis & Cardon, 2020;

Piva & Stroe, 2023). Our findings underscore the strategic use of obsessive passion in attracting suitable employees. This occurs because entrepreneurs signaling obsessive passion attract proactive job seekers and those with high levels of entrepreneurial self-efficacy, while deterring risk-averse individuals. As such, we show that the characteristics of the person perceiving the passion play a significant role in how passion is interpreted. Our study addresses the challenge that new ventures face in recruiting suitable human capital in a competitive labor market (Greer et al., 2016; Hayton, 2003; Moser et al., 2017; Williamson et al., 2002).

Our results also show that signaling obsessive passion can be an effective strategy for attracting candidates with entrepreneurial mindsets and competencies, thus providing new ventures with a competitive advantage in talent acquisition. Hence, we offer a theoretical contribution at the intersection of signaling (Spence, 1973) and PE fit theory (Kristof, 1996; Kristof-Brown et al., 2005, 2023). Furthermore, we use PE fit theory to explain how signals are processed and why some individuals process signals differently (see Schüler, Franzke, et al., 2023). Obsessive passion is a signal that comes with a high degree of ambivalence for perceivers. By combining PE fit theory with signaling theory, we contribute to recent efforts to understand the cognitive processing of signals (e.g., Drover et al., 2018). Here, we explain how ambiguous signals in the recruitment context, such as obsessive passion, are processed and are differently interpreted depending on individual characteristics.

7.3 Practical Implications

This dissertation offers several practical implications for entrepreneurs, educators, and other stakeholders. First, it emphasizes the utility of both passion types. Our findings reveal that both harmonious and obsessive passion can be advantageous for entrepreneurs. Entrepreneurs should acknowledge that both are valuable tools that can be used to support their affect regulation and enhance their entrepreneurial success. Entrepreneurs and their

supporters are encouraged to become more aware of the diverse effects and multifaceted nuances of obsessive passion. We suggest a perspective shift for how entrepreneurs view their obsessive passion. We highlight that obsessive passion is not inherently harmful; its effects vary depending on the underlying type of obsessive passion.

Entrepreneurs are encouraged to nurture more internally driven types of obsessive passion for improved functional outcomes. In addition, we encourage entrepreneurs to actively and strategically manage their obsessive passion. These results can equip entrepreneurs, especially in their early entrepreneurial stages with effective strategies to manage their obsessive passion. Entrepreneurs are not helpless in the face of their obsessive passion; instead, they can adopt strategic approaches to optimize its benefits and minimize its risks.

Specifically, obsessive passion is resilient when entrepreneurs face continuous negative feedback and failure (competence frustration experiences) and it becomes increasingly so in such an environment. This is a valuable resource for entrepreneurs since their environment is often characterized by difficult circumstances and negative experiences.

Second, this dissertation highlights the benefits of obsessive passion in new venture recruitment. Based on our results, we encourage entrepreneurs to use their obsessive passion as a powerful recruitment signal. Entrepreneurs may use different communication channels (e.g., their website, social media, newspaper articles, or even job interviews) to reveal their obsessive passion to potential employees. By strategically showcasing it, entrepreneurs can attract individuals who bring the necessary characteristics for the dynamic and challenging entrepreneurial environment. Based on our findings, we recommend that entrepreneurial education programs include information on the risks associated with different types of obsessive passion. Educators are advised to inform entrepreneurs about the potential disadvantages of and risks associated with externally driven obsessive passion.

Third, this dissertation aims to create awareness about the active management of passion. Entrepreneurs and their supporters are encouraged to become aware of the diverse effects of the different types of obsessive passion. Our findings suggest that passion can be influenced by experiences (affect and competence experiences), enabling practitioners to develop strategies that either stimulate or mitigate the effects of various forms of passion effectively. The results also indicate that supervisors and advisers should focus on positive feedback to enhance competence satisfaction experiences, which build both types of passion effectively. Entrepreneurs are thus advised to foster their harmonious passion as a protector against negative affect and ensure that they do not lose their harmonious passion after failure and times of abundant negative feedback.

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APPENDIX

Appendix A: Chapter II

Factor Loadings and Reliability of Variables

Positive affect ($\alpha = .78$)	
1. Inspired	.666
2. Alert	.345
3. Excited	.858
4. Enthusiastic	.802
5. Determined	.552
Negative affect ($\alpha = .78$)	
1. Afraid	.760
2. Upset	.594
3. Nervous	.715
4. Scared	.760
5. Distressed	.848
Harmonious passion ($\alpha = .88$)	
1. Currently, my entrepreneurial activity is in harmony with the other activities in my life.	.928
2. Currently, my entrepreneurial activity is in harmony with other things that are part of me.	.844
Obsessive passion ($\alpha = .74$)	
1. Currently, I have almost an obsessive feeling for my entrepreneurial activity.	.753
2. Currently, my entrepreneurial activity is so exciting that I sometimes lose control over it.	.793

Note. Model fit: comparative fit index: 0.93; standardized root mean square residual: 0.08

Appendix B: Chapter IV

Study 1: Factor Loadings and Reliability of Variables

Competence satisfaction ($\alpha = .78$)	
1. In the current work week, I feel confident that I can do things related to my entrepreneurial activity well.	.850
2. In the current work week, I feel competent to achieve my entrepreneurial goals.	.760
Competence frustration ($\alpha = .66$)	
1. In the current work week, I am disappointed with many of my entrepreneurial accomplishments.	.712
2. In the current work week, I feel insecure about my entrepreneurial abilities.	.656
Harmonious passion ($\alpha = .56$)	
1. In the current work week, my entrepreneurial activity is in harmony with other activities in my life.	.688
2. In the current work week, my entrepreneurial activity is a passion that I still manage to control.	.575
Obsessive passion ($\alpha = .73$)	
1. In the current work week, I am having a hard time controlling my need for my entrepreneurial activity.	.832
2. In the current work week, I have almost an obsessive feeling about my entrepreneurial activity.	.700

Note. Model fit: root mean square error of approximation: 0.023; standardized root mean square residual: 0.031; Tucker–Lewis index: 0.993; comparative fit index: 0.996; *p*-value (chi-square): 0.318.

Study 2: Factor Loadings and Reliability of Variables

Competence satisfaction ($\alpha = .97$)		
1. I feel confident that I can do things related to my entrepreneurial activities well.		.948
2. I feel competent to achieve my entrepreneurial goals.		.976
Competence frustration ($\alpha = .87$)		
1. I feel disappointed with my entrepreneurial performance.		.829
2. I feel insecure about my entrepreneurial abilities.		.899
Harmonious passion t1 ($\alpha = .67$)		
1. My entrepreneurial activities reflect the qualities I like about myself.		.684
2. My entrepreneurial activities are in harmony with the other activities in my life.		.522
3. For me, it is a passion that I still manage to control.		.590
Obsessive passion t1 ($\alpha = .77$)		
1. The urge is so strong. I can't help myself from doing my entrepreneurial activities.		.645
2. I have a tough time controlling my need to do my entrepreneurial activities.		.673
3. I have almost an obsessive feeling for my entrepreneurial activities.		.863
Harmonious passion t2 ($\alpha = .77$)		
1. My entrepreneurial activities reflect the qualities I like about myself.		.907
2. My entrepreneurial activities are in harmony with the other activities in my life.		.832
3. For me it is a passion that I still manage to control. ^a		.485
Obsessive passion t2 ($\alpha = .85$)		
1. The urge is so strong. I can't help myself from doing my entrepreneurial activities.		.800
2. I have a tough time controlling my need to do my entrepreneurial activities.		.749
3. I have almost an obsessive feeling for my entrepreneurial activities.		.888

Note. Model fit: root mean square error of approximation: 0.035; standardized root mean square residual: 0.050; Tucker–Lewis index: 0.985; comparative fit index: 0.990; *p*-value (chi-square): 0.069; ^aitem was excluded due to poor factor loading.

Study 2: Example of competence satisfaction manipulation

You decided to **do some research before** and then launching your idea into the market. Having some idea about your customers and doing some research is a **great choice and successful and experienced entrepreneurs choose the same option**. Our previous analysis has shown us, that it is necessary to **know your target group, but not spend too many resources**.

Your decision showed that you are an **excellent entrepreneur. Good decision!** With your decision, you demonstrated your **high level of entrepreneurial competence**. Indeed, your performance is within **the best 20% of all participants**.

Keep up the good work!

Study 2: Example of competence frustration manipulation

You decided to **do some research before** and then launching your idea into the market. Choosing the middle of two options is not always considered best and **most successful and experienced entrepreneurs would have made a different choice**. Our previous analysis has shown us, that those entrepreneurs that **cannot commit to one idea** often **waste resources** without gaining enough information. **So far, your decision suggests that you lack basic entrepreneurial knowledge and competence**. Currently, your performance is within **the worst 20% of all participants**. You may consider putting in **more thought and effort** to show us that you are a skilled entrepreneur!

We hope that you can bring your company back on track!

Study 2: Example of control group text

You decided to **do some research before** launching your idea into the market.

Appendix C: Chapter VI

Factor Loadings and Reliability of Level 2 Moderator Variables

Proactive Personality ($\alpha = .93$) **AVE = 0.585**

To what extent do you agree or disagree to the following statements?

(7-point Likert-scale 1 = “strongly disagree” to 7 = “strongly agree”)

- | | |
|--|------|
| 1. I am constantly on the lookout for new ways to improve my life. | .608 |
| 2. Wherever I have been, I have been a powerful force for constructive change. | .770 |
| 3. Nothing is more exciting than seeing my ideas turn into reality. | .716 |
| 4. If I see something I don't like, I fix it. | .652 |
| 5. No matter what the odds, if I believe in something I will make it happen. | .808 |
| 6. I love being a champion for my ideas, even against others' opposition. | .666 |
| 7. I excel at identifying opportunities. | .869 |
| 8. I am always looking for better ways to do things. | .655 |
| 9. If I believe in an idea, no obstacle will prevent me from making it happen. | .841 |
| 10. I can spot a good opportunity long before others can. | .839 |

Risk Aversion ($\alpha = .77$) **AVE = 0.457**

To what extent do you agree or disagree with the following statements?

(7-point Likert-scale 1 = “strongly disagree” to 7 = “strongly agree”)

- | | |
|---|------|
| 1. I am not willing to take risks when choosing a job or a company to work for. | .625 |
| 2. I prefer a low risk/high security job with a steady salary over a job that offers high risks and high rewards. | .643 |
| 3. I prefer to remain on a job that has problems that I know rather than take risks of working in a new job that has unknown problems even if the new job offers greater rewards. | .664 |
| 4. I view risk on a job as a situation to be avoided at all costs. | .766 |

Self-Efficacy ($\alpha = .83$) **AVE = 0.479**

How do you rate yourself regarding the following entrepreneurial tasks compared to your peers?

(7-point Likert-scale 1 = “much worse” to 7 = “much better”)

- | | |
|-------------------------------------|------|
| 1. Being able to solve problems | .667 |
| 2. Managing money | .560 |
| 3. Being creative* | .437 |
| 4. Getting people to agree with you | .696 |
| 5. Being a leader | .790 |
| 6. Making decisions | .857 |

Notes: The factor loadings are retrieved from confirmatory factor analysis (Chi-square (df) = 445.84 (167), $p < 0.001$; root mean square error of approximation (RMSEA) = 0.097; standardized root mean squared residual (SRMR) = 0.067; Tucker-Lewis index (TLI) = 0.84; comparative fit index (CFI) = 0.86). We only included reflective latent factors in this analysis. * item dropped due to poor factor loading. AVE = average variance extracted.

Data Cleaning Procedure

	Count
Total Cases	233
Bogus Item 1 Fail	4
Bogus Item 2 Fail	2
Time Lower Fail	3
Time Upper Fail	16
Longstring Fail	18
Average Longstring Fail	5
Older than 67	4
Clean Cases	181
