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Entrepreneurship as a Process of Self-Fulfillment: Well-Being, Affect, and Behavioral Strategies

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Abstract

This study unravels the underlying mechanisms that influence entrepreneurs' behavior during the startup process. Theories of entrepreneurial behavior have assumed that entrepreneurs try to achieve goals—profit, sales, job satisfaction, autonomy, to name a few. Yet, past studies are silent about how entrepreneurs keep making efforts toward business startups while not achieving goals for a prolonged period of time. If goals are hard to reach and entrepreneurs are unable to assess their achievement level toward their goals, how do they manage to keep making efforts during the business startup process? What factors influence their effort level during the startup? Based on individual entrepreneurs' daily records, this thesis suggests that entrepreneurs manipulate their affective states through their behavior thus are able to keep engaged in startup despite high uncertainty about their goals and achievement levels. I analyze individual entrepreneurs' behavior, emotions, and perceptions as the uncertain future unfolds for them. By using research methods that avoid recollection bias, I present a model as to how entrepreneurs' behavior and their affective states are interrelated, and what triggers entrepreneurs to increase or decrease their effort toward business startups. This study contributes to the further understanding of entrepreneurial behavior by suggesting alternative drivers of entrepreneurial processes: happiness and contentment.

ENTREPRENEURSHIP AS A PROCESS OF SELF-FULFILLMENT:

WELL-BEING, AFFECT, AND BEHAVIORAL STRATEGIES

By

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DISSERTATION

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We face difficult choices in life. Whether or not to pursue a 'PhD' was one of the toughest choices I have made in my life. My friends in Japan thought I was crazy to abandon a promising career in the public sector. My mother still believes the only job I could get is an English teacher. When I told her that I was quitting a job for an academic career, she suggested that I should find creative hobbies to satisfy my thirst for creativity, and then I would be happy with the public sector job—which she thought I was getting bored with.

All of these correspond to what I tackled in my dissertation. Why do people start businesses and then persevere in the process despite grim outlook of business and various setbacks? When I look back at my path leading to this dissertation, it is funny that I did not foresee that I would write this dissertation from the beginning. But again, as I found in my dissertation, we cannot see the future, which makes the process tough yet meaningful.

In order to arrive where I am today, I cannot emphasize enough the role that Johan Wiklund has played during these four years. This dissertation would not be here without him. Johan was the one who got excited about my data and research questions. He asked me many strange (yes, I cannot stress this enough either) questions, which helped me to remain curious about research, life, and the world.

Tom Lumpkin puts me at ease. Somehow whenever I visit his office, I am in a panic. Tom smiles, tells me good things, uplifts my mood, and then gives me a cautionary tale so that I would not be too positive. Tom has also helped me to think about the implications of my dissertation to social entrepreneurship, which is my passion. Cathy Maritan is my mentor. She helped me not only with my dissertation but with my development as a researcher. She has made me envision how this dissertation and I as a scholar could grow. Cathy also showed me what qualitative research can do; her versatility in both quantitative and qualitative research is one thing I hope to achieve in my career. Most importantly, Cathy has kept me sane in this process. Bei Yu is one of most generous and smartest people I have ever met. She spent many hours with me discussing what I can do to make the qualitative study findings more robust and consistent. Her suggestions are reflected in the design of Study 1, and I cannot imagine what the study would look like without her guidance and suggestions. Maw Der Foo is another generous party getting involved with my messy journey. I almost stalked him at a conference, yet he kindly accepted to serve as a committee member when I asked him to. His pioneering work in ESM was the inspiration and foundation of Study 2, and his insights often corrected my missteps.

Whitman School of Management has offered me generous support throughout my PhD life. In particular, Tridib Mazumdar and Eun Kyu Lee have made my PhD life at Whitman a lot easier as PhD program director. I could not be happier anywhere else. The EEE members, George Burman, Mike Haynie, Alex McKelvie, Minet Shinduette, were all there when I asked for help. It is always good to know that I have some offices to run into. Kris Byron made a critical comment; 'I don't think what you are saying is what you are actually doing. There is more than profit and non-pecuniary motives.' I hope I have finally found the answer. Burak Kazaz was also there in my dissertation process. His humor has helped me laugh in tough times. This

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1. Introduction

   This study was initially conceived as a research project to compare the different experiences between social and commercial entrepreneurs during the startup process. The logic was simple: as social entrepreneurs are mainly motivated by non-pecuniary factors (Dees, 2001), their experiences as entrepreneurs should greatly differ from those of non-social entrepreneurs (Short, Moss, & Lumpkin, 2009). For example, decisions or choices can be substantially different between the two groups, given that each group's decision preferences (what they value most) are different (Austin, Stevenson, & Wei-Skillern, 2006; Cho, 2006). Thus, social entrepreneurs should show substantially different behavioral patterns and levels of progress from non-social entrepreneurs during their startup processes (Dorado, 2006). However, after analyzing preliminary data, I could not find any distinct decision mechanisms or different behavioral patterns for social entrepreneurs. Instead, the data showed that both social and non-social entrepreneurs behave in similar ways. Motivations, personal situations, preferences, and business ideas vary among the entrepreneurs I examined. If these seemingly different nascent entrepreneurs behave in a similar manner, what actually drives an entrepreneur's behavior during the startup stage?

   When I tried to understand this question, I encountered another question. How do entrepreneurs persevere in the startup process, putting efforts for their venture startups, while they cannot assess whether they are closer to achieve their goals? Data on business startup activities indicate that approximately two-thirds of nascent entrepreneurs are still in the startup process after four years, without founding an operational firm (Reynolds & Curtin, 2008). Work motivation theories mostly apply to the settings in which employees are assigned tasks, and

describe how to motivate employees to achieve high performance for a team or firm (Steers, Mowday, & Shapiro, 2004). Since startup activities are self-initiated and hard to assess against their goals, work motivation theories might not be able to explain entrepreneurs' continuous efforts for business startups.

Studies and theories of entrepreneurial behavior and motivation often take the perspective that entrepreneurs are driven to achieve certain goals (Carter, Gartner, Shaver, & Gatewood, 2003; Smith & Miner, 1983). While it is true that entrepreneurs have various goals they aim to achieve, these theoretical frameworks do not fully explain the long duration of business startups—not founding a functional organization for more than four years. In addition, entrepreneurs do not usually maximize their income levels (Hamilton, 2000). Non-pecuniary motives, such as control and job satisfaction (Hundley, 2001; Lange, forthcoming), have been said to compensate the decreased level of income, yet how these various factors and preferences influence entrepreneurs to keep making efforts toward business startups remain unanswered. In summary, without tangible achievements during the startup stage, what motivates entrepreneurs to continue pursuing their business ideas? Do entrepreneurs so blindly believe in their goals and their own capabilities that they persevere through the startup process, often for more than a year? What drives them to pursue their ideas for a prolonged period of time?

Another aspect I examine in the thesis is the range of goals that drive entrepreneurs. Given that entrepreneurs can create phenomenal wealth for themselves and extensive value for society, theories of entrepreneurial behavior tend to be framed in terms of economic rationale. Many studies on entrepreneurship have assumed that entrepreneurs are driven to achieve business success, defined as achieving profits/sales and rapid growth. Dominating theories of entrepreneurial behavior are normative, as they address what entrepreneurs *should* do to achieve

business goals. Yet, the picture of the entrepreneur as a profit maximization robot stands in stark

contrast with narratives and in-depth case studies of actual entrepreneurial processes.

Entrepreneurs are concerned not only with profit/sales of their business, but also with other

factors in their lives. Entrepreneurs also seem not to be sure about what would actually lead to

maximum profit or growth of their companies. For example, the founder of Facebook, Mark

Zuckerberg, mentioned that he "just did it" because programming a website where friends can

communicate was simply interesting to him. By the time he finished creating the site, "I had a

different idea that I wanted to do and I was going to scrap it (Facebook)." To him, the creation

of Facebook was just "random stuff" (Stanford University's Entrepreneurship Corner).

Similarly, some entrepreneurs are not concerned about their business success. For example, in

an interview, one of Google's founder, Larry Page, mentions that they "had to" commercialize

Google simply because so many people were using it (Stanford University's Entrepreneurship

Corner). They were primarily concerned about their progress in their PhD program, not the

business (Stanford University's Entrepreneurship Corner). As these examples show, although

financial feasibility and stability *should* be a concern to entrepreneurs, they tell stories that

deviate substantially from the rational, homo-economicus way of thinking. Many successful

entrepreneurs even emphasize that the profit motive alone is not enough to persevere and

succeed during the entrepreneurial process, as financial difficulty and failure is inevitable during

startup processes. If entrepreneurs are not solely driven by profit motive achievement of their

goal is in some distant future, then what makes entrepreneurs persevere during the startup

processes when uncertainty and setbacks are abundant?

    This thesis thus uncovers the mechanism that drive people to pursue their business

startups for a prolonged period of time. The main contention is that an alternative perspective of

what drives entrepreneurial decisions and behavior during the startup process can reveal hitherto unobserved mechanisms underlying entrepreneurship. In particular, I pay attention to the factors that influence entrepreneurs' motivation levels for business startups, or more precisely, what motivates entrepreneurs to keep putting more or less effort during their business startups. This naturally requires process-oriented research (Shane, Locke, & Collins, 2003), paying much attention to entrepreneurs thoughts/cognition, emotions/affect, and actions. I designed this study to capture the individual experiences, including their emotions and thoughts for a prolonged period of time.

Since there is no comprehensive theory that explains entrepreneurs' persistent effort levels during the startup process, I build a theoretical framework for explaining entrepreneurs' continuous efforts in the startup stage through Study 1. I employed a multiple-case study design, using the diary blogs of nine entrepreneurs as a main data course. Based on the patterns that emerged from the blogs, I integrated existing human behavior/motivation theories to explain entrepreneurial decisions and behaviors. Specifically, I refer to well-being studies from the hedonic psychology framework (Kahneman, Diener, & Schwarz, 1999) as well as self-determination theory (Deci & Ryan, 2002). Well-being studies contend that people behave in ways that maximize their happiness and well-being (Deci & Ryan, 2002). Based on the results, I argue that by manipulating their emotions through their entrepreneurial behaviors, entrepreneurs are able to persevere in the face of uncertainty, and the factors that make entrepreneurs to feel positive emotions change depending on the contexts of events and the stages of startup process. Incorporating entrepreneurs' desire for well-being leads to a more comprehensive understanding of what drives entrepreneurial behavior.

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Based on the theoretical framework developed in Study 1, Study 2 explores the potential of using the Day Reconstruction Method (DRM) to capture finer points of data regarding entrepreneurs' experiences during their startup processes. The DRM has been used in well-being studies (Dockray et al., 2010) but yet to be applied in entrepreneurship research. This study shows the rich, unexplored areas of entrepreneurship research questions that can be further investigated by collecting the real-time data from startup entrepreneurs.

In sum, this thesis contributes to the efforts to fully understand entrepreneurial behavior in the startup process by contending happiness and satisfaction as alternative drivers of entrepreneurship. I examine entrepreneurs' experiences from the stages when they are yet to launch their first product to the stage when they add/expand their product lines. I suggest that entrepreneurs' ability to balance between negative and positive affects and to manipulate affective states determines the paths and subsequent choices that entrepreneurs take. This thesis also illustrates the role of affect as a trigger of positive affect-inducing behaviors. Although negative affect-inducing events are inevitable for all entrepreneurs, they are able to manipulate affective states by engaging in certain activities to control these negative affect-inducing events and affective states. I reveal that many activities that we regard as entrepreneurial behaviors are actually attempts by entrepreneurs to induce positive affect.

1.1 Drivers of Entrepreneurial Decisions and Behavior

Entrepreneurial behaviors and decisions have attracted many scholars. The majority of the literature is interested in the performance of startup—profits and sales, and entrepreneurial behavior and decisions have been examined as an antecedent to such performance. In this approach, scholars take a normative approach (Einhorn & Hogarth, 1981; Slovic, Fischhoff, &

Lichtenstein, 1977), that is, in terms of what decision must be made to achieve the best performance. In other words, many scholars have assumed that entrepreneurs are driven to achieve good performance and thus behave and make decisions to maximize their performance level.

As a result, the majority of entrepreneurial behaviors and decision theories have been devoted to explaining variance—why and how entrepreneurs 'deviate' from the most efficient and effective way to maximize profits. On the other hand, many scholars have also suggested non-pecuniary motives as drivers of entrepreneurial behavior. Entrepreneurs' decisions and behaviors are driven by all these factors, and as such, theories of entrepreneurial decisions and behaviors must incorporate these various drivers of entrepreneurship.

1.1.1 Business Performance as a Driver

Entrepreneurship is often discussed in business and economic contexts. Opportunity is one of the core elements in entrepreneurship theories, and the definition of opportunity often assumes different beliefs about future price and value in either product markets or factor markets (Shane & Venkataraman, 2000; Venkataraman, 1997)[1]. This definition results in the implicit assumption that entrepreneurs act on their own beliefs in ways to maximize profit, and that due to different beliefs among market participants, some entrepreneurs make a profit (Eckhardt & Shane, 2003). Although entrepreneurs face true uncertainty (Knight, 1990), their expectation of future value of goods or services guides their decisions, and entrepreneurs thus expect to

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[1] Entrepreneurship as a scholarly field is defined as 'the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited' (218). Following Casson (1982), entrepreneurial opportunities are defined as 'those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater price than their cost of production' (220) (Shane & Venkataraman, 2000).

minimize production costs and maximize profits. To identify influential factors behind entrepreneurship success, empirical studies on entrepreneurship have often taken a variance approach and examined sales or profits as a dependent variable to identify influential antecedents (e.g., Davidsson & Honig, 2003).

As entrepreneurial behavior does not always maximize the entrepreneur's income / profits, many scholars examined the sources of variance, that is, what makes them choose and keep a career as an entrepreneur that is not optimizing income. Labor economists have suggested that miscalculation of future income may be one reason (Hamilton, 2000). This stream of research has laid the foundation for the research on psychological and cognitive aspects of entrepreneurs. The underlying logic is that certain cognitive mechanisms (how people think) contribute to the miscalculation of future income or the likelihood of success. For example, risk tolerance (Lévesque, Minniti, & Shepherd, 2009; Sitkin & Weingart, 1995), optimism (Forbes, 2005), and overconfidence about their future financial success (Koellinger, Minniti, & Schade, 2007) have been identified as individual characteristics that contribute to less than optimal decisions. From this perspective of entrepreneurial decisions, the variance comes from entrepreneurs' psychological and personal characteristics, thus resulting in a miscalculation of success. In this theoretical framework, people start their own businesses because they overestimate the level of income after starting a business due to specific personal characteristics.

Although these perspectives offer an explanation as to why people are motivated to start a business, they do not necessarily answer the question why more than 60% of nascent entrepreneurs keep making efforts toward founding business after more than four years (Reynolds & Curtin, 2008). Even if entrepreneurs could miscalculate future income or be overconfident and optimistic, aren't four years enough for them to see the reality?

Another important factor affecting entrepreneurial decisions is true uncertainty[2] (Knight, 1990). Since nobody knows the likelihood of outcomes or even the likely outcomes themselves, entrepreneurs' behavior could be unpredictable. The theory of effectuation (Sarasvathy, 2001) is path breaking, as it incorporates decision-making situations in which no decision makers know the right answers and the theory allows for non-linear paths to the achievement of a goal. Effectuation is defined as the processes that 'takes a set of means as given and focuses on selecting between possible effects that can be created with that set of means' (Sarasvathy, 2001: 245). Sarasvathy (2001, 2008) has theorized that entrepreneurs do not primarily rely on deductive, causal logic, but use a more adaptive approach to their decision making. Effectuation incorporates uncertainty as a factor, and therefore, shows that entrepreneurs think differently from those thought processes promoted in traditional economics or management frameworks. According to this perspective, entrepreneurs rely on a decision process that deviates from the traditional, causal logic to achieve a goal. Yet, in this theory, entrepreneurs are still regarded as economic agents who strive to achieve business success. As the theory assumes that entrepreneurs are driven to achieve business success, it does not question why or how such preferences are formed and how such goals influence entrepreneurs' behavior during the startup process.

Each stream of research has contributed to our understanding of entrepreneurial behavior by identifying influential antecedents of business performance and by theorizing entrepreneurial thinking. Nonetheless, these views cause us to overlook other drivers of entrepreneurship—not

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[2] a set of unknown outcomes, each with an unknown likelihood of occurrence

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necessarily profitable business success—that entrepreneurs may pursue. In the next section, I introduce the literature on non-monetary motivations.

1.1.2 Non-pecuniary Motives as Potential Drivers

We have long known that entrepreneurs are not necessarily motivated by profit (Shane et al., 2003). For example, not all entrepreneurs pursue the expansion and growth of their businesses, and entrepreneurs' growth aspirations vary significantly (Cassar, 2007; Wiklund, Davidsson, & Delmar, 2003).

The role of non-pecuniary motives has been noted in studies that explain self-employment as a career choice (Croson & Minniti, 2012) and subsequent business performance (Burke, Fitzroy, & Nolan, 2002). For example, in examining business startup motives, autonomy has been often listed as a major non-pecuniary motive (Benz, 2009; Carter et al., 2003). Generally, autonomy has been used as a variable to explain the career choice of self-employment that psychologically compensates for the decrease in income/salary (Caliendo & Kritikos, 2012). Note that in entrepreneurship research, autonomy is interchangeably referred as independence or freedom (Croson & Minniti, 2012).

Another non-pecuniary motive is psychological income. Psychological costs and income have been associated with career choice, primarily in human capital theory (Becker, 1964; Campbell, 1992; Evans & Leighton, 1989). Gimeno et al. (1997) used a psychic income variable to explain the timing of discontinuing business – perseverance through the business process. The variable, however, was captured either as intrinsic motivation ("let you do the kind of work you wanted to do" or "avoid working for others") or parent's business ownership (the business passed on to from their parents) (Francis & Sandberg, 2000), which does not directly explain

perseverance during the startup process. A similar concept is job satisfaction. Lange (forthcoming) argues that self-employed people have greater job satisfaction not because of their personalities (e.g., optimistic) or values (e.g., exciting life, creativity) but because of autonomy (decision power).

These non-pecuniary motives explain the lack of income or profit during the startup process, yet these theories fail to explain how entrepreneurs can persevere during the startup processes. If we assume that entrepreneurs maximize their utility (satisfaction) through the combination of pecuniary and non-pecuniary motives, how do these motives play a role as goals that drive entrepreneurs throughout the startup processes when facing high levels of uncertainty and various setbacks?

1.1.3 Perseverance under High Uncertainty

Entrepreneurial decisions and behaviors have been often examined under normative theory frameworks that often assume that entrepreneurs are driven to achieve business success and that their decision preferences are fixed. The normative framework corresponds to goal setting theory (Latham & Locke, 1991) in that is assumes that entrepreneurs set various goals and then assess their progress and adjust the goals or their level of effort. However, startup processes are complete with setbacks and high levels of uncertainty, which causes the assessment of achievement or effort level to be rather difficult. Assuming that entrepreneurs are driven to achieve goals under the normative framework falls short in explaining how entrepreneurs actually survive and remain in the startup processes and eventually achieve their goals.

The descriptive framework, on the other hand, attempts to answer questions such as why have people's preferences become what they are and why do people make the decisions they

make (Einhorn & Hogarth, 1981) without imposing assumptions. Descriptive theory shows the underlying mechanisms of choice while normative theory prescribes and predicts the efficient course of actions. For understanding the drivers of entrepreneurship and how entrepreneurs persevere during the startup processes, I build a descriptive theory of entrepreneurial decisions and behaviors which leads to perseverance.

Descriptive theories of decisions and behaviors have been developed in many scholarly areas including economics, sociology, and psychology (Einhorn & Hogarth, 1981). The most notable of these are in the field of well-being studies (Kahneman, 2003). Well-being studies attempt to elucidate what drives people's behavior by examining people's behaviors and choices. Two streams of well-being studies should be noted: happiness (hedonic or subjective well-being) and eudaimonic well-being.

Happiness studies are often called subjective well-being or hedonic psychology, which focuses on people feeling positive emotions (Diener, 2000). Hedonic psychology is 'the study of what makes experiences and life pleasant and unpleasant' (Kahneman et al., 1999, p. ix). The main contention is that human decisions are guided by the motivation to maximize hedonic experiences, i.e., maximizing pleasure while minimizing displeasure or pain (Diener, 2000; Easterlin, 2001; Frey & Stutzer, 2002; Kahneman et al., 1999). By postulating that people pursue happiness, hedonic psychology offers a framework to systematically capture people's decision preferences. By examining what makes entrepreneurs happy during the startup processes, this framework will allow me to explain the drivers of entrepreneurial behavior during the startup processes.

The other important stream of well-being studies is eudaimonic well-being. This view holds that self-realization is the central tenet of well-being[3] (Ryan & Deci, 2001). The core theory of eudaimonic well-being, self-determination theory (SDT), posits that fulfilling basic psychological needs – autonomy, competence, and relatedness –leads to well-being and that people are driven to fulfill these needs in their lives (Ryan & Deci, 2001).

The difference between subjective and eudaimonic well-being is the treatment of positive emotions. Eudaimonic well-being suggests that there are some occasions that subjective well-being (feeling happy) does not yield eudaimonic well-being (Ryan & Deci, 2000, 2001). For example, people make choices to maximize the hedonic experiences even if doing so is detrimental to their well-being (e.g., smoking, drinking). Or some people may be pursuing personal goals in such an intense manner that they do not feel happy even though they may be fulfilling their psychological needs—competence and the feeling of becoming a 'fully-functioning' person. SDT posits that as a result of goal pursuance, people who fulfill their basic psychological needs feel more positive affect as an outcome of a eudaimonic life (Ryan & Deci, 2001), but not vice versa.

These two different views of well-being complement each other (Ryan & Deci, 2001), and accordingly, this thesis borrows a framework from these two views of well-being. Based on SDT, I posit that entrepreneurs are driven to fulfill their basic psychological needs – autonomy, relatedness, and competence. As simply pursuing materialistic goals would not result in life satisfaction, entrepreneurs deviate from what traditional economics frameworks assume.

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[3] In a similar manner, psychologists have also suggested an overlapping yet distinct concept: psychological well-being (PWB). PWB consists of six dimensions: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness (Keyes, Shmotkin, & Ryff, 2002).

Because goal pursuance itself would enhance entrepreneurs' eudaimonic well-being, entrepreneurs would remain engaged in the startup processes despite setbacks and high uncertainty. I also assume that in everyday life, entrepreneurs experience negative affect, which greatly reduces their basic psychological needs. From the lens of hedonic psychology, I identify factors that contribute to positive emotions and promote feelings of happiness of entrepreneurs, and I examine how entrepreneurs maximize their levels of happiness. In other words, I assume that everyday decisions made by entrepreneurs are likely to be explained by hedonic psychology frameworks, while the basic psychological needs serve as more foundational drivers of entrepreneurship.

I also argue that entrepreneurs engage in manipulation of their affective states on the basis of these two views of well-being. Entrepreneurs are driven to satisfy their basic psychological needs, and as a result, feel better when those needs are fulfilled. Once entrepreneurs learn that certain actions result more positive affect as such actions fulfill psychological needs, they will continue to engage in similar actions as such actions would maximize the entrepreneurs' hedonic experience level. This view explains entrepreneurial decisions such as those of serial entrepreneurs, that is, why some entrepreneurs leave their successful business to engage in another startup activity. Entrepreneurs are driven by the desire to feel/maximize positive feelings and such feelings are more prevalent when their psychological needs are fulfilled.

1.2 Research Approach

This thesis builds a theory of entrepreneurial decisions and behaviors toward entrepreneurial perseverance that is grounded in empirical observations and then it incorporates

existing theories. This thesis addresses the question, what drives entrepreneurs to persevere throughout the startup processes? This thesis presents two types of contributions. First, it presents a theoretical framework that explains how entrepreneurs persist during the startup process while detailing entrepreneurs' behavioral strategies. Second, I examine the applicability of new data collection method, the Day Reconstruction Methods (DRM), to the business startup process and show the great potential of real-time data collection in entrepreneurship research

Study 1 examines entrepreneurs' efforts during the startup processes to identify factors that influence their well-being. Specifically, this study addresses the following questions: what factors lead entrepreneurs to experience feelings of happiness and contentment as the well-being theories suggest? How do these factors operate in the business startup process and influence perseverance? To answer the research questions, I employ a multiple case study method. To avoid recollection bias and to capture the factors that contribute to perseverance, I use blog diaries of entrepreneurs as a main data source, thus capturing entrepreneurs' experiences longitudinally as the process unfolds for each entrepreneur.

Study 2 builds on the framework built as a result of Study 1, and explores the potential data collection methods to test the components of the framework. As affect changes frequently, I examine methods to capture real-time data. As a main contribution, I modified the DRM to capture entrepreneurs' affective states and their behaviors (Kahneman, 2005). The DRM uses a survey, and a respondent is prompted to recall events and feelings of the previous day. Using this survey, researchers obtain data on participants' experiences (activities and associated moods) throughout a day. Since the DRM is rather new and has not been specified the nature of task/work at hand, I added new categories for work-related items. This study demonstrates the

great potential of the DRM in examining entrepreneurs' experiences during the startup stage, which will give us a better picture of entrepreneurs' perseverance.

1.3 Intended Contributions

This thesis contributes to entrepreneurship research by developing a theory of entrepreneurial decisions and behaviors toward perseverance. Existing theories of entrepreneurial decisions and behaviors emphasize the role of business success as a driver, and entrepreneurial behaviors are typically viewed as irrational deviations from achieving business success. Even when theories incorporate non-pecuniary motives, existing theories are silent as to how entrepreneurs persevere in the highly uncertain environment.

A central argument and insight of this dissertation are that entrepreneurs are active agents in overcoming various setbacks and in formulating their own startup processes. Entrepreneurial decisions and behaviors are far more complex than previously assumed, and thus, in this dissertation, I incorporate the potential drivers of entrepreneurship into a systematic, theoretical framework while identifying the mechanisms that lead to perseverance.

This dissertation is one of the first attempts at incorporating entrepreneurs' various and changing decision preferences to fully explain organization emergence and entrepreneur persistence. The theoretical model shows that persistence is not a product of certain personal characteristics. Rather, this theory contends that entrepreneurs' actions including regulating affect and pursuing life satisfaction ultimately lead to persistence. The model also shows which factors are most influential at different stages of the entrepreneurial processes, thus providing a complete picture of the various and conflicting motives behind entrepreneurs' decisions and behaviors that ultimately contribute to perseverance. Therefore, this thesis offers a robust

foundation for future empirical research, as it tests entrepreneurial persistence in the context of organizational emergence.

Entrepreneurs intentionally manipulate affective states to maximize their future levels of happiness. For example, entrepreneurs may launch new product lines in a later stage because they remember how exciting it was when they launched their first product line. We also know that some entrepreneurs leave their successful businesses to start other businesses – serial entrepreneurs. They remember the positive affect they experienced when they started a new company, and it is this affective state that they seek through entrepreneurship. According to this theory, the numbers associated with sales or profits become only an indication of their achievement, while the preferences that guide entrepreneurial decisions constantly change, depending on past behaviors and their consequences. Accordingly, I examine what factors form entrepreneurial decision preferences and how they do so. Thus, this thesis contributes to a comprehensive understanding of entrepreneurial decisions and behaviors.

Specifically, Study 1 analyzes entrepreneurs' experiences through their diary blogs as the future unfolds for each entrepreneur. Through the analysis, I identify a) the relationship between their behavior and affect and b) the entrepreneur's behavioral strategy in manipulating affect. From their diaries, I categorize typical behaviors of entrepreneurs and the associated affects into four quadrants: low/high arousal and positive/negative affects. By analyzing their diaries longitudinally, I identify the changes in their behavioral strategies as well as in the relationships between affect and behavior over time. Thus, Study 1 produces testable hypotheses about entrepreneurs' actions and the subsequent experienced utility of those actions. Study 2 then explores data collection methods that enable further research on entrepreneurs' startup experience. I modified the DRM which collects data on all major actions throughout an entire

day, with assessment of affect. The finer data points about entrepreneurs' affect levels, their actions /behaviors, and the contexts will allow researchers to refine this thesis's findings in the future.

I also make a methodological contribution by developing a new and innovative research design that is particularly well-suited to study entrepreneurial processes. The entrepreneurial process can be accurately depicted as a sequence of events where entrepreneurs constantly make and revise decisions as they perceive appropriate at a particular point in time. Viewing a process from the viewpoint of an entrepreneur sheds light on overlooked aspects of entrepreneurial behaviors. In Study 1, I use entrepreneurs' diaries as a main data source, thus I reconstruct their processes from their perspectives thus minimizing recollection bias. In Study 2, I modified the DRM, which overcomes the shortcomings of experience sampling methodology (ESM). Developed in 2004, the DRM is rather new and mainly used in well-being studies to see people's mood change over a day. In such studies, work is only specified as 'work,' and not specified what type of work people engage. I test the DRM in the entrepreneurial context, adding new activity categories of different nature of tasks/work at hand. The study thus contributes to the well-being research by offering potential modification of the DRM for work setting.

The implication of this study is also useful for entrepreneurs. The theory built through this thesis indicates that entrepreneurship is a process of self-fulfillment and search for happiness, and it is not always about making a profit or rapidly growing a business. The theory additionally offers coping strategies may help entrepreneurs persevere in the face of difficulty during the entrepreneurial process.

1.4 Outline of the Dissertation

This dissertation is organized in the following way. The introduction summarizes the contents of the dissertation. In Chapter 2, I summarize existing theoretical frameworks of entrepreneurial decisions and behaviors, thus highlighting the need for this thesis. Chapter 3 reports the research design and the results of Study 1. Study 1 is a theory-building effort that employs a multiple-case study methodology. Chapter 4 describes Study 2, which is based on the results of Study 1, whereby I examine entrepreneurs' behavioral strategies using a larger sample. Chapter 5 offers discussion, implications, and conclusion.

2. Theoretical Framework

Entrepreneurship research on the relationship between affect and cognition is still in an early stage. Entrepreneurs experience various emotions throughout the startup phase (Morris, Allen, Kuratko, & Brannon, 2010), and we still do not know in what ways entrepreneurs' decisions and behaviors are influenced in different affective states (Stanley, 2010). The careful attention to the relationship between affect and its outcomes will help our understanding of entrepreneurial behaviors (Baron, 2008).

As summarized in the first chapter, theories of entrepreneurs' motivation have mostly focused on career choice as self-employment. As entrepreneurs often earn lower incomes compared to employed individuals (Hamilton, 2000), entrepreneurial behavior is often examined as a deviation from the optimal choice of achieving maximum profit/income (Kahneman, Wakker, & Sarin, 1997). Some scholars have suggested alternative motives, such as job satisfaction and autonomy, to compensate for the decreased income level (Shane et al., 2003). However, theories of entrepreneurial motivation have been silent about how entrepreneurs persevere without actualizing profits over a long period of time. Even if we assume that entrepreneurs (mistakenly) believe they will maximize profit/income by switching their career, how do so many entrepreneurs remain in the startup processes for more than four years without establishing a firm? (Reynolds & Curtin, 2008) Choosing to become an entrepreneur can be because of a lapse in judgment, but if so, why do entrepreneurs not give up after not achieving profits?

Entrepreneurship or startup is a process, and it seems that we do not have theories to explain perseverance, that is, entrepreneurs' motivation for putting efforts for business startups

after they choose to become an entrepreneur and before they achieve their business goals. Entrepreneurial motivation theory must incorporate the process aspect (Shane et al., 2003), as people's motives vary over time and depend on varying contexts (Birch, Atkinson, & Bongort, 1974). To date, most studies have adopted a normative approach, which shows what *should* be done to achieve business success, and as such, these studies have focused on identifying the source of deviation from achieving business goals (Einhorn & Hogarth, 1981).

Through a review of the extant literature, this chapter illustrates the need for a comprehensive framework for theorizing entrepreneurial motivation toward perseverance. First, because the dominant approach assumes that entrepreneurial decisions are made with profit maximization/business success as a goal, I summarize the literature on factors that explain the deviation from profit maximization/business success. In this theoretical framework, why people choose to be entrepreneurs is particularly puzzling, as financial calculations should show that it is more profitable to be employed (Koellinger et al., 2007). I summarize three areas of literature: traditional economics, decision biases, and effectuation.

Second, I introduce literature on non-pecuniary motives. Entrepreneurship scholars have noted that the assumption of profit maximization cannot fully explain entrepreneurial behavior (Cassar, 2007; Wiklund et al., 2003). These scholars have consistently suggested that non-monetary factors, such as psychic income (Gimeno et al., 1997) and autonomy (Blanchflower & Oswald, 1998), play an important role in entrepreneurial decisions. Incorporating these non-pecuniary factors would present a more comprehensive picture of entrepreneurs' decision preferences as to career choice, yet non-pecuniary motives alone do not necessarily explain why or how some entrepreneurs persevere while others do not. It is true that these non-pecuniary benefits may compensate for the lack of income/profits. Nonetheless, such compensation alone

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does not explain the drive of entrepreneurs to move forward and achieve something during their startup process.

Third, I review motivation theories, focusing on drivers of human behavior. Specifically, I summarize the positive psychology, especially well-being studies, that would fit the business startups and individual entrepreneurs' motivation. In the startup processes, entrepreneurs are self-regulating agents (Shane et al., 2003), and well-being studies regard people 'as self-organizing, self-directed, adaptive entities' to understand behavior (Seligman & Csikszentmihalyi, 2000: 8). By incorporating the recent development in psychology and well-being studies as motivation theories, I show that entrepreneurs are motivated to behave in ways that maximize their states of happiness (hedonic well-being) and contentment (eudaimonic well-being).

The last section introduces literature related to specific research design with a focus on the notion of the substantive conception of process. The literature on well-being sheds light on important research design requirements, that is, each decision must be observed to understand an individual's preferences. This coincides with the substantive conception of the entrepreneurship process (Dimov, 2011). I describe the difference between substantive conception and retrospective conception of process and highlight the specifics for the research design.

2.1 Profit/Income Maximization as a Driver of Entrepreneurship

2.1.1 Traditional Economics – Probability of Success and Capital

Traditional economics models assume that firms production decisions are made to optimize, that is, to achieve the highest level of profit under various constraints, such as budget, the cost of inputs, and market price. The first approach to entrepreneurial behavior assumes that firms in the traditional economics model and entrepreneurs are interchangeable (Simon, 1964). In other words, entrepreneurs make decisions to achieve the highest level of profit.

This approach has generated research questions about the career choice of entrepreneurs, such as why people choose self-employment over being employed. In traditional economics models, the decisions to start a new business *should* be made when the sum of expected outcomes weighted by their probabilities is greater than that of a paid job (Koellinger et al., 2007). On average, entrepreneurs have 35% less income compared to paid employees after 10 years in business (Hamilton, 2000). Entrepreneurs' average initial earnings and income growth are both lower than paid unemployment. These statistics, however, do not include benefits such as health insurance, in which case the actual income difference is much greater between the self-employed and the paid employee (Hamilton, 2000). The career choice of entrepreneurs is thus puzzling as it occurs 'too many' times when viewed from a traditional economics perspective (Koellinger et al., 2007).

Traditional economics frameworks have hypothesized and tested whether entrepreneurs miscalculate the expected future income. Taylor (1996) used survey results of male adults in the UK and proposed that higher expected earnings from self-employment, although often unfounded, explained entrepreneurial behaviors as entrepreneurs list higher expected earnings as

a major reason to have entered into self-employment. Human capital theory (Schultz, 1959) is a variation of this view as this theory posits that knowledge would increase the productivity and efficiency of the production process. Entrepreneurship scholars have examined what personal characteristics of founders have resulted in better performances of their businesses (Chandler & Hanks, 1998; Davidsson & Honig, 2003). In this theoretical framework, scholars have examined the influences of knowledge factors such as education and entrepreneurial experiences. To a certain extent, human capital theory predicts the startup behavior of entrepreneurs as formal education and prior startup experiences are robust predictors of startup behavior; however, human capital factors do not explain the completion of the startup processes or the actualization of profits (Davidsson & Honig, 2003).

The recent argument is that those who choose self-employment have a different set of skills that ensure higher returns. Hartog, Praag, and van der Sluis (2010) argue that people with technical skills or social abilities gain higher returns as entrepreneurs than people with clerical skills. Thus, if a person possesses significant technical and social skills and abilities, it would be advisable for that person to enter into self-employment. However, the longitudinal survey data indicates that although these factors influence career choice, entrepreneurship as a career choice is not primarily explained by the motivation for income maximization (Hartog et al., 2010).

Economics frameworks impose and test the assumption that higher degrees of capital/inputs lead to business startup and business success as greater capital allows for a higher level of profit once all the formulae are calculated. This framework, however, does not examine entrepreneurs' preferences. For statistical procedures, individual preferences are assumed to be constant and stable over time (Kahneman & Thaler, 2006), and entrepreneurs are assumed to be driven by the motive to realize profits. Thus, this framework falls short in answering certain

basic questions. First, why do people choose entrepreneurship as a career option even when the financial returns appear bleak? Second, why do some entrepreneurs persevere during the startup process even when they are not actualizing achieving profits? In an attempt to answer these questions, this view has laid the foundation for psychology scholars to examine factors that *prevent* entrepreneurs from rational decision-making, that is, decision biases due to personal traits or cognition.

2.1.2 Decision Biases

Research on decision biases mainly considers the difference between entrepreneurs and managers/non-entrepreneurs. The basic logic is that too many startups are the result of entrepreneurs' decision biases and heuristics, assuming that rational decision making would not result in a high frequency of startups. Overconfidence in one's own entrepreneurial skills could be a major factor in the increased number of startups (Koellinger et al., 2007). Busenitz and Barney (1997) argue that people who use biases and heuristics in decision making are most likely to become entrepreneurs, while cautious decision makers are more likely to prefer being employed by larger organizations as such settings offer information for rational decision making. Such an approach often examines psychological characteristics such as optimism, over-confidence, and risk-taking.

The optimistic bias, that is, the tendency to expect positive outcomes and events (Baron, 2008), is often linked with the entrepreneur's motivation to start a business. Entrepreneurship research on optimism among entrepreneurs has shown that entrepreneurs tend to be more optimistic, on average, than other persons (Hmieleski & Baron, 2008). For startup behaviors, scholars contend that optimists see new opportunities in whatever they pay attention to, and therefore, they may seek to exploit too many opportunities (Hmieleski & Baron, 2009). People

with high levels of optimism often hold unrealistic expectations while discounting negative outcomes (Hmieleski & Baron, 2009). This is regarded as a problematic characteristic of entrepreneurs as entrepreneurs should choose and prioritize goals so that they can survive and achieve long-term success (Hmieleski & Baron, 2009). Consistent with this argument, Cassar (2010) reported that entrepreneurs are optimistic and have higher financial expectations during the founding stage than they actually achieved. Cassar (2010) further concludes that this over-optimism during the planning stage regarding financial projections result in higher startup behaviors than anticipated. Overall, research designs based on overly optimistic entrepreneurs assume that entrepreneurs wrongly estimate their future return relative to their actual skills and probability of success, and consequently, entrepreneurs start businesses expecting to achieve financial rewards.

Overconfidence is another decision-making bias, and it refers to the individual's ability to accurately assess their own knowledge or skills[4] (Forbes, 2005; Koellinger et al., 2007). Many scholars suggest that entrepreneurs tend to be overconfident (Busenitz & Barney, 1997) and that this confidence in their own ability is a good predictor of startup behaviors (Camerer & Lovallo, 1999; Townsend, Busenitz, & Arthurs, 2010). Koellinger et al. (2007) conclude that confidence in entrepreneurial skills is a major driver of choosing self-employment across countries. Bernardo & Welch (2001) also note that entrepreneurs have psychological inference biases – overconfidence – as more than 80% of entrepreneurs believe that their success is probable, yet 75% of these businesses cease to exist within five years. Forbes (2005) claims that

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[4] Overconfidence and entrepreneurial self-efficacy are similar in that both are based on estimations of personal ability, yet these two are different. ESE is 'the degree to which people perceive themselves as having the ability to successfully perform the various roles and tasks of entrepreneurship'. ESE measures what people believe about their abilities, while overconfidence is concerned with the accuracy of measurement. ESE is a belief (Forbes 2005).

overconfidence influences not only how entrepreneurs found their ventures but also how they behave as managers. The literature on overconfidence maintains that entrepreneurs found their ventures due to the distorted vision of their ventures' success; in other words, the sum of the expected outcome is disproportionately higher than the actual outcome.

Another psychological factor that has been tested is risk propensity and risk tolerance. Most of these studies compare entrepreneurs with managers to determine the greater risk propensity of entrepreneurs (e.g., Busenitz & Barney, 1997). Early empirical studies have been criticized for not using suitable measurements (Shaver & Scott, 1991). From meta-analysis, Stewart and Roth (2001) conclude that entrepreneurs show greater risk propensity than managers. The logic in this stream of research is that entrepreneurs are willing to take risks when investing time and resources in startups even when the probability of financial or business success is low (Benz & Frey, 2008) or when the probability of success is uncertain (Koellinger et al., 2007). Theoretical frameworks for explaining entrepreneurs' risk-taking behaviors are derived from psychology theories focusing on predispositional personality characteristics (Stewart & Roth, 2001) and risk-taking behaviors in organizational settings (Sitkin & Pablo, 1992; Sitkin & Weingart, 1995).

Some scholars have used the logic that risk-taking personality types are more likely to become entrepreneurs, though the empirical results from the assumption that entrepreneurs possess higher risk propensity traits have been debated and contested (Miner & Raju, 2004). Blanchflower and Oswald (1992) report a surprising non-finding about personality characteristics as a determinant of self-employment. Using longitudinal data, they tested individual's childhood scores of psychological tests to predict self-employment as an adult. Only one factor, people who were anxious for acceptance, showed significant but small effects

on self-employment. Accordingly, Blanchflower & Oswald (1998) conclude that personality traits do not explain the career choice of self-employment. Xu and Ruef (2004) also conclude that entrepreneurs are not necessarily more risk-tolerant. On the contrary, they report that entrepreneurs are more risk-averse than the general population and suggest that autonomy and identity-fulfillment are the likely factors that encourage entrepreneurs to engage in startups (Xu & Ruef, 2004).

Psychologists have suggested that cognition is more influential in determining behaviors than personality or personality traits (Ajzen, 1991; Bandura, 1991). For example, entrepreneurs may accept more risk or perceive less risk compared to non-entrepreneurs (Kahneman & Lovallo, 1993). According to this logic, it is not the risk propensity that impacts entrepreneurial decision making, but the risk perception that matters in determining risk-taking behaviors (Simon, Houghton, & Aquino, 2000; Sitkin & Pablo, 1992). Baron (2004) suggests that the accuracy of risk assessment could be the reason that many entrepreneurs engage in startup behaviors, only to fail. In other words, entrepreneurs use biases and heuristics more frequently than non-entrepreneurs (Busenitz, 1999). As entrepreneurs may base their decisions on limited information and may be over-confident about their skills, they perceive less risk or think differently about risk (Busenitz, 1999). This school of scholars suggests that entrepreneurs do not necessarily show high risk propensity, but rather, it is the way they think that results in high level of startups (Busenitz, 1999; Mitchell et al., 2002).

Entrepreneurs' cognition – how they think – points to an important research question; why do entrepreneurs think as they do? Scholars have studied decision biases because they assume that entrepreneurs *should* be thinking about business success and optimal financial returns, though entrepreneurs often fail to make optimal decisions. While it is true that

entrepreneurs have business goals, I argue that what drives entrepreneurs throughout the startup processes is not necessarily profit motive alone. Although decision biases and cognitive mechanisms are important factors to consider, if profit motive alone is not driving the entrepreneur's behavior, we must also examine decision biases and cognitive mechanisms with other non-pecuniary motives in mind. If entrepreneurs are not biased when they make decisions, as we have previously assumed, then what drives their decisions and behaviors? To understand why entrepreneurs think as they do, we must broaden our lens and consider those factors that can potentially influence entrepreneurs' various decisions.

2.1.3 Effectuation – Incorporating Uncertainty

Uncertainty is another factor that has been studied in entrepreneurship. When entrepreneurs face high uncertainty, they cannot determine the right direction for good performance as good performance can be achieved in many ways and there is no single determined strategy to achieve good performance (Sarasvathy, 2001). This logic is influenced by behavioral theories of firms. The literature shows that decision makers in an organization cannot make 'rational' choices due to bounded rationality, decision-making rules, interactions among decision makers, or ambiguous decision-making contexts (March, 1978; March & Heath, 1994; Simon, 1959, 1979). In other words, this line of research in organizational settings examines those factors that interfere with optimal choices.

Effectuation as a theory shows how entrepreneurs make decisions under uncertainty (Sarasvathy, 2001). Effectuation is often contrasted with causation, a deductive approach to efficiently reaching a goal. In some situations, entrepreneurs know the goal or the purpose of an action, and they analyze what must be done to achieve the goal in the most efficient way. Causal thinking is better suited for such a situation when goals are clearly set, as the aim is to choose the

best means to achieve the pre-set goals. Entrepreneurship is characterized by true uncertainty, and in many situations entrepreneurs do not know the potential outcomes of an action or the probability of such outcomes. With high uncertainty, goal setting itself becomes a difficult task (Dimov, 2007). In such situations, entrepreneurs must adjust their goals according to the immediate outcomes or they must create new goals. Entrepreneurial decisions, therefore, seem inefficient from the deductive and retrospective view once outsiders gain complete knowledge of the outcomes, but for entrepreneurs who face uncertainty, effectuation is one mechanism in making their future decisions. Effectuation thus suggests that entrepreneurial processes become non-linear and that entrepreneurs may create unique paths to reach successes. Eckhardt and Shane (2003) also agree that the assumption of optimization in the rational economics model does not apply to entrepreneurial processes as entrepreneurial decisions involve creation – the creation of the means, the end, or both. Eckhardt and Shane (2003) further show the need for alternative theories to explain entrepreneurial decision making, as entrepreneurship involves decision making under uncertainty.

Although effectuation incorporates uncertainty and explains that entrepreneurs may think differently than previously assumed under the traditional rational economics choice models, the theory still assumes that entrepreneurs are driven to achieve business successes. This view allows entrepreneurs to deviate from linear paths, but why entrepreneurs are driven to start businesses and why they continue to pursue entrepreneurship remains unexplained, thus emphasizing the need for a comprehensive theoretical framework.

2.1.4 Summary

I have herein addressed three areas of decision theories that implicitly assume that entrepreneurs are driven to achieve business successes. These views indicate that entrepreneurs

deviate from profit maximizing logic due to cognitive mechanisms, but do not question why entrepreneurs are driven to achieve business successes. These views consider an important factor, the entrepreneur's decision preferences that influence behavior, as a black box, and thus attempt to explain why entrepreneurs deviate from the path of business success. However, we have long known that entrepreneurs pursue various goals that are not necessarily related to business profit or growth. While it is true that business success is an important factor, we must incorporate other factors into our theory to understand entrepreneurial behavior during the startup processes. Thus, we need an alternative framework to capture the whole range of factors that influence entrepreneurial behavior during the startup stage. In the next section, a review of the literature that suggests the important roles played by non-pecuniary motives as drivers of entrepreneurship is presented.

2.2 Non-Pecuniary Motives

The role of non-pecuniary motives has been noted in studies that explain self-employment as a career choice (Croson & Minniti, 2012; Hurst & Pugsley, 2010; Kolvereid, 1996) and subsequent business performance (Burke et al., 2002). Benz (2009) shows that incorporating non-pecuniary motives explains entrepreneurship phenomena appropriately as it accounts for the greater benefits and utility derived from entrepreneurship. In this section, I summarize the literature on non-pecuniary motives in the context of entrepreneurship.

2.2.1 Autonomy

In examining business startup motives, autonomy has been often listed as one major factor of non-pecuniary motives (Benz, 2009; Carter et al., 2003). Generally, autonomy has been

used as a variable to explain the career choice of self-employment that psychologically compensates for the decrease in income/salary (Caliendo & Kritikos, 2012).

The notion of autonomy is originally defined as 'the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out' (Hackman & Oldham, 1975:162). In entrepreneurship research, autonomy is also interchangeably referred to as independence or freedom (Croson & Minniti, 2012).

Autonomy has been measured in different ways in entrepreneurship research (Van Gelderen & Jansen, 2006). For example, Kolvereid (1996) used words such as "freedom, independence, be your own boss, choose own work tasks" as the reasons for preferring self-employment in the questionnaire for MBA students, while Utsch et al. (1999) tested the differences between managers and entrepreneurs with respect to higher order need, control rejection, and self-efficacy, and argued that while managers also enjoy autonomy, people with higher autonomy scales choose to be entrepreneurs. Van Gelderen & Jansen (2006), using semi-structured interviews of entrepreneurs, examined, through the entrepreneurs' narratives, what is meant by autonomy. They examined three aspects of autonomy as motivation (independence: avoid boss/rules; self: endorsement/congruence; determination: decision control/power) and concluded that while these three aspects of variables co-exist, some dimensions are more important to certain people than other dimensions (Van Gelderen & Jansen, 2006). Lange (forthcoming), using the European social survey, argues that self-employed people experience greater job satisfaction not because of their personality (e.g., optimistic) or values (e.g., exciting life, creative), but because of the autonomy (decision power) derived from being self-employed.

Autonomy explains what it is like to be a member of a top management team. By engaging in the startup process, entrepreneurs become a member of the top management team in their own company. By starting up a company, entrepreneurs enjoy a higher degree of autonomy, which leads to increased job satisfaction, less burnout, and better business performance (Kim & Stoner, 2008; Loher, Noe, Moeller, & Fitzgerald, 1985). This does not necessarily explain why some entrepreneurs persevere during the startup process while others do not. Autonomy or independence in the context of a startup also means less job security (Millán, Hessels, Thurik, & Aguado, forthcoming), thus sometimes reducing the attractiveness of self-employment. In sum, autonomy is an important non-pecuniary motive that explains entrepreneurial behavior, and one whose influence on the entrepreneur during the startup process is yet to be understood.

2.2.2 Psychic Income

Psychological costs and income have been associated with career choice primarily in human capital theory (Becker, 1964; Campbell, 1992; Evans & Leighton, 1989). Gimeno et al. (1997) used a psychic income variable to explain the timing of discontinuing business. The variable, however, was captured either as intrinsic motivation ("allows you to do the kind of work you want to do" or "avoid working for others") or parent's business ownership (whether the business has been passed on from parents) (Francis & Sandberg, 2000). Campbell (1992) theorizes that costs and income of entrepreneurship should include both the physical and psychological and assumes that entrepreneurs calculate the probability of success and potential benefits of both financial income and psychic income, yet this theory does not suggest how to measure psychic income nor does it determine the role that psychic income plays in the startup process.

In short, the concept of psychic income has been treated as an additional aspect to monetary or physical income—non-pecuniary benefits or costs that business startup confers upon the individual. Thus, this concept fails to explain the process aspect of entrepreneurial motivation in keep making effort toward business startups. Rather, psychic income is closely related to the career choice question of one point in time—whether to start one's own firm or whether to quit one's own firm.

2.2.3 Job Satisfaction

Entrepreneurs generally show greater job satisfaction than comparable employees or salaried workers (Benz & Frey, 2004; Bradley & Roberts, 2004), though this job satisfaction is not significantly influenced by their firms' financial performance (Hmieleski & Corbett, 2008). Job satisfaction is often an outcome that entrepreneurs obtain from engaging in the startup (Cooper & Artz, 1995; Millán et al., forthcoming), and it often results from a higher level of autonomy, time and work flexibility, and the challenging tasks they face (Hundley, 2001). This is especially true in developed countries, where many people choose to be entrepreneurs because of the satisfaction derived from being entrepreneurial and independent. Even in less developed economies, the self-employment career choice would compensate for the lack of income (Bianchi, 2010). Consistent with this finding, Block and Koellinger (2009) argue that necessity entrepreneurs (people who start jobs due to a lack of employment opportunities) show less job satisfaction, thus indicating that while job satisfaction is important, entrepreneurs also need financial security.

Another perspective of job satisfaction is that dissatisfaction serves as the social factor that promotes self-employment career choice (Freeman, 1978). Noorderhaven et al. (2004) examined the entrepreneurial intensity differences in 15 European countries and found that

dissatisfaction with available jobs and with society often leads to self-employment as a career choice.

Other non-pecuniary motives, such as autonomy and psychic income, also contribute to increased job satisfaction. The logic is that although entrepreneurs are not maximizing income or profits during their startup processes, the increased satisfaction with their job makes entrepreneurs persevere. Accordingly, Benz and Frey (2008) argue that the process is itself more important to entrepreneurs than mere outcomes, such as income or working hours, as entrepreneurs derive more satisfaction from engaging in the startup processes. Carree and Verheul (forthcoming) argue that job satisfaction ultimately determines the survival of the venture, showing that income, leisure time, and psychological well-being increase job satisfaction among entrepreneurs'. Burke et al. (2002) argue that non-pecuniary motives explain the increased level of entrepreneurial effort during the startup processes despite the lack of profit or income. In sum, entrepreneurs are more satisfied during the startup process, a fact which potentially allows them to persevere through the process.

2.2.4 Summary

There is no doubt that non-pecuniary motives play important roles in explaining entrepreneurs' motives, including career choice, perseverance, quitting, or achieving success. Non-pecuniary motives explain why entrepreneurs choose to engage in startups despite lower income, and non-pecuniary benefits such as job satisfaction and autonomy compensate for this lack of income and further satisfy entrepreneurs' values/preferences.

However, incorporating non-pecuniary motives into profit motives does not, by itself, explain why or how some entrepreneurs persevere during the startup process. Motivation must

explain the strength/energy, direction, and duration of human behavior (Atkinson, 1964), and

non-pecuniary motives, as compensating factors to low levels of income, do not add explanation

to the duration or strength of entrepreneurs' motivation. If entrepreneurs receive high levels of

benefits from non-pecuniary motives at the startup stage, then why do they still pursue their

business and persevere in high-uncertainty conditions? What makes them move forward?

Would there be greater autonomy, job satisfaction, or psychic income by proceeding and

persevering throughout the startup process rather than enjoying the status-quo?

The existing literature mainly analyzes entrepreneurs' affect and cognition at a single

point in time during their startup process and thus fails to explain how the startup motives change

and how entrepreneurs persevere. How do the motives influence entrepreneurs' perseverance

throughout the startup processes? Why do some entrepreneurs manage to persevere in dynamic

and uncertain environment while others do not? What we need is a process-based research of the

factors that motivate entrepreneurs if we are to understand their perseverance through the startup

processes.

To understand the process aspect of entrepreneurial motivation in startups, I address the

recent developments in positive psychology, specifically well-being studies, to understand the

motivation to achieve life satisfaction.

2.3 Uncertain Process and Motivation for Perseverance

Reflected in the broad range of theories used to understand the phenomenon, motivation

is a multi-dimensional, complex concept. To better understand the strength/energy, direction,

and duration of human behavior (Atkinson, 1964), four core components have been considered:

needs, cognition, emotions, and external events (Reeve, 2005). Specifically, cognitive

motivation theories such as expectancy theory (Vroom, 1964), goal-setting theory (Locke & Latham, 2002b), and self-efficacy theory (Bandura, 1977) have been widely applied in an attempt to understand motivation in work-related settings that focus on the process aspects of motivation (Steers et al., 2004).

As seen in previous sections, individual entrepreneur's motivation has often been examined using work-motivation theories such as goal setting theory or self-efficacy theory. The common logic is that entrepreneurs set goals to found a successful business while incorporating other personal values in life. Although these theoretical frameworks do help us understand the strengths/energy and direction of human motivation (i.e. people want to start business), they fall short in explaining the duration of their effort during the startup process (i.e. people keep making effort regardless of their achievement level against their initial goal).

I expand the scope of entrepreneur motivation theories, and introduce theories that reflect longer-term achievements or non-work related goals or direction. First, I introduce motivation literature in relation to goal attainment. Second, I summarize affect literature as well as positive psychology literature in explaining people's behavior at foundational level. Recently, work motivation theories have begun to incorporate emotions into the work setting (Seo, Barrett, & Bartunek, 2004). This phenomenon coincides with the recent development of an area in psychology known as positive psychology (Seligman & Csikszentmihalyi, 2000), focusing on the influence of positive emotions on positive behavior. This line of literature helps us understand how emotions influence positive behavior, in this thesis's context, putting efforts toward goals. Third, I introduce well-being literature, especially hedonic well-being and eudaimonic well-being literature. The well-being literature informs us on human behavior in general life setting, and has incorporated the development of positive psychology. Although

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entrepreneurship is often discussed in business settings, business startup processes are not necessarily the same as the business settings when people are employed. With high uncertainty and the lack of organizational constraints, it is worth to take a look at motivation theories that explain human behavior in a general setting.

2.3.1 Efforts and Goal Attainment

In examining learning and training processes, scholars have examined the factors that influence the performance of the learner or trainee—what motivates the learner and make people learn (Kanfer & Ackerman, 1989). This line of work includes examining the influence of basic components such as cognitive abilities (intellect) (Hunter, 1986) and personality (Barrick & Mount, 1991) on job performance. Together, all the factors influence an individual's choice in goals, effort level, and performance at a specific task. Since entrepreneurs are set to realize their business ideas, they already selected long term goals. Although the influence of these factors on job performance might need a careful interpretation (Bobko, Roth, & Potosky, 1999; Schmidt, 2002), in this thesis's research question that examines the mechanism of entrepreneur's perseverance, I briefly review literature on motivation in regard to effort allocation (Kanfer & Ackerman, 1989).

Motivation is a complex concept (Judge & Ilies, 2002), and what makes people to put efforts in achieving long term goals require self-regulatory mechanisms (Bandura, 1986; Kanfer, Ackerman, Murtha, Dugdale, & Nelson, 1994). Self-regulation mechanism works with three components: monitoring, evaluation, and reactions (Bandura, 1991; Latham & Locke, 1991). People monitor the progress toward achieving their goals, and assess the level of achievement (Lord, Diefendorff, Schmidt, & Hall, 2010). Depending on the discrepancy levels between the goal and achievement, people adjust their goals and/or effort level, and sometimes abandon the

goal itself (Ilies & Judge, 2005). In existing literature, the complexity of given tasks is one of the keys in determining the performance level, and in turn, determining the level of effort (Kanfer et al., 1994; Locke & Latham, 2002a; Lord et al., 2010).

In this thesis's context, however, task complexity per se is somewhat consistent among entrepreneurs' startup activities. Applying self-regulatory mechanisms to startup situations, goals and tasks are determined and created by entrepreneurs themselves. The existing framework of goal setting theory does not explain why some entrepreneurs persist during the startup process. Specifically, what remains unexplained is the mechanism that drives entrepreneurs to keep putting efforts toward achieving goals when they cannot assess their achievement level against goals. In understanding perseverance of efforts, existing literature highlights two concepts of personal traits: grit and tenacity.

Grit is a personal trait and defined as 'perseverance and passion for long-term goals' and means 'working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress' (Duckworth, Peterson, Matthews, & Kelly, 2007: 1087-1088). The concept of grit overlaps with the conscientiousness in five factor model (Digman, 1990) yet grit emphasizes the duration of effort for longer-term as well as consistent and specific goal choices (Duckworth et al., 2007). Grit also overlaps with need for achievement (Mcclelland, 1961) in the attitude of pursuing goals, but it again differs in the long-term, consistent commitment to the goals from need for achievement (Duckworth et al., 2007).

Tenacity, interchangeably used as perseverance, is defined as 'a trait that involves sustaining goal-directed action and energy even when faced with obstacles' (Baum & Locke, 2004: 588). Tenacity or perseverance has been tested in entrepreneurship context as an antecedent of new venture performance or subsequent growth (Baum & Locke, 2004).

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Grit and tenacity explain the length of effort as a personal trait, and research on these two concepts examines the personal trait (grit, tenacity) as an antecedent of performance and achievement. Although entrepreneurs are likely to show tendencies in high grit and tenacity compared to non-entrepreneurs, how entrepreneurs exert such personal traits in ways to persevere during the highly uncertain business startup process remains unanswered.

2.3.2 Affect and Motivation

Affect, with the concept of cognition, has gained much attention among scholars as factors that influence behavior more directly than personality traits (Baron, 2008; Krueger Jr, 2005). The influences of affect on human behaviors have been examined in various fields such as philosophy, psychology, and neuroscience. Definition of affect varies and is often used interchangeably with emotion. I follow the definition that affect implies the whole category of emotions, feelings, and moods (Fox, 2008). Emotions are responses to an internal or external event and exist rather short period of time; the event has a significance to the person thus evaluating an object/situation is a key component. Feelings are 'the subjective representation of emotions' (Fox, 2008: 17), and the focus is on the person's private experience in experiencing emotions. Mood is a diffuse affective state that lasts longer and is generally less intense than emotions (Fox, 2008).

The main focus of affect research is the interaction between affect and cognition (Lewis, 2005). The mechanisms of how affect influences behaviors are being examined and investigated in various fields, but the general agreement is that affect influences behavior via cognition and that affect and cognition are interdependent processes (Fox, 2008). Positive and negative affect influences thoughts and behaviors; not only strong, disturbing affective states but also mild and moderate affective states influence the thought and behavior of people (Isen, 1984; Moore &

Isen, 1990). In other words, cognition, or how people think, has an influence on how they feel; on the other hand, affect influences how people think. The two processes are intertwined, thus examining the relationship between affect and cognition requires an attention to the dynamism of the relationship. Since this thesis tries to capture entrepreneur's experience as the process unfolds, how affect and cognition influence their behavior in the process needs to be carefully examined. In this section, I summarize research on affect in management and entrepreneurship research.

2.3.2.1 Affect Research in Organizational Settings

Organizational behavior and marketing research have often looked at the relationship between people's affective state and behavior. The organizational behavior research on affect has been reinvigorated in the mid-1980s and 1990s after the major advancement in the 1930s and lesser interest in the following years (Brief & Weiss, 2002). With this revived interest, the influences of affect on people's performance in contemporary organizational settings have been examined with various theoretical frameworks. Positive affect improves performance such as the quality of managers' decisions (Staw & Barsade, 1993). The relationship between creativity and affect has been examined in many ways and there is a general agreement that positive affect contributes to creativity (Madjar, Oldham, & Pratt, 2002). Amabile et al. (2005) examined the relationship between affect and creativity in more detail, and showed that positive affect and creativity have a linear relationship – the stronger positive affect would result in more creativity, and there is no U-shape or inversed U-shape relationship between the two. They also studied the time context of positive affect and creativity, and showed that positive affect is an antecedent of creative thoughts with up to two days of incubation period while creative thoughts, in turn, would induce positive affect up to a day (Amabile et al., 2005).

The past research in organizational settings tends to look at the effects of affect as antecedents of performance. Some theories of organizational behavior have looked at the mediating roles of affective states, such as job characteristics and job satisfaction (Hackman & Oldham, 1976). Researchers have recently started to look at people's happiness at work (Nelson & Cooper, 2007), and what leads to employees' happiness at work (e.g., Rego, Souto, & Cunha, 2009). Nonetheless, since management research has a focus on better performance of the organization, studies on affect so far have focused on positive affect or the positive impact of affective states which lead to better performance.

It has been shown that affect has a significant influence on people's behaviors. Yet research in organizational settings does not examine the negative influences of affect much. The organizational setting also controls the environment to a certain level, thus not much uncertainty exists to the extent to influence people's perceptions (Gartner, Bird, & Starr, 1992; Gustafsson, 2006). When we regard the entrepreneurial process as a sequence of actions taken by entrepreneurs who are facing an uncertain future, the affective state at the point of decision making and action might have different influences in the outcomes or the course of actions taken by the entrepreneur. In the following section, I introduce research on affect in the entrepreneurship context.

2.3.2.2 The Role of Affect in Entrepreneurship

In entrepreneurship research, cognition has long attracted many scholars to answer some key questions regarding entrepreneurs' behaviors, information processing, and decision making (Krueger Jr, 2005; Mitchell et al., 2002). As an antecedent of cognitive mechanism, Baron (2008) calls for more studies on affect and entrepreneurship. Entrepreneurship is different from

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organizational settings with higher unpredictability and fast changes, and entrepreneurial activities often include behaviors which are influenced by affect level (Baron, 2008).

Affect influences cognition through two major mechanisms: priming (affect as a filter for memory information and as a memory retrieval cue) and heuristic cue (affect as a basis of judgments and decisions; affect-as-information) (Baron, 2008). In theorizing the role of affect in entrepreneurship, Baron (2008) also points out the negative side of positive affect; entrepreneurs might make premature decisions, be too optimistic in decision making, make wrong judgment based on favorable memories. The theorizing effort of affect in entrepreneurship so far somehow focuses on the influences of positive affect, and not much can be found on negative affect. This might be due to the attention to entrepreneurial aspects such as creativity or problem solving, and to the fact that empirical studies in management or psychology have proven the effects of positive affect to such dimensions of entrepreneurial process.

Notable works in affect and entrepreneurship have been emerging. Cardon et al. (2009) suggest a theoretical framework for studying entrepreneurial passion. Since many entrepreneurs refer their businesses as their babies (Cardon, Zietsma, Saparito, Matherne, & Davis, 2005) and show strong attachment to the businesses (Shepherd, 2003), Cardon et al. (2005) call for more attention to the emotional aspect of entrepreneurship process. Cardon et al. (2009) argue that emotions play an important role in determining and regulating entrepreneurs' cognitions and behaviors. Foo et al. (2009) conducted a longitudinal study and examined the influences of negative and positive affect on subsequent effort level by entrepreneurs. Their findings suggest that both positive and negative affect increases venture efforts on tasks immediately required as well as on tasks beyond what is immediately required. They followed entrepreneurs for 24 days, and showed that the influences of affect with within-day effort and next-day effort level. This

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study shows that affect influences entrepreneur's intention and behavior, and authors encourage further efforts in examining the affect-intention relationship. They suggest that different patterns might emerge from longer-term observations, since their research captured the pattern over about a month. These studies show the potential and challenge of affect research in entrepreneurship— although affect is likely to influence entrepreneurs' behavior, the effort in capturing affective states as well as their consequences is still in developmental stage.

In relation to affect research, scholars have also suggested the influence of uncertainty in decision-making processes (Baum, Frese, & Baron, 2007). Since entrepreneurs have to make decisions in a short period of time without sufficient information, the role of affect likely increases since entrepreneurs have to make decisions in rather an incomplete way (Bryant, 2007). In short, affect is likely to play an important role during the startup stage when uncertainty is high and little information is available. Entrepreneurs' behavior is more susceptible to what they are feeling than in organizational settings.

These theories and studies indicate that this thesis needs to incorporate the role of affect in understanding entrepreneurs' perseverance—how they manage to stay engaged in the startup when they cannot see achievements, success, or their paths. Theoretically, both positive and negative emotions influence people's behavior, yet majority of research focuses on negative emotions (Seligman & Csikszentmihalyi, 2000). In a similar manner, entrepreneurship research on affect has theorized the influence of affect in the context of failure (e.g. Patzelt & Shepherd, 2011; Shepherd, Wiklund, & Haynie, 2009). It is true that setbacks and difficulties are abundant during their startup stage, yet it is also true that entrepreneurs feel more satisfied and happy compared to other employed people (Carree & Verheul, 2012; Vos, Yeh, Carter, & Tagg, 2007). Most people feel positive emotions on average (Diener & Diener, 1996), or at least, people feel

positive emotions while feeling negative emotions (Larsen & Mcgraw, 2011). As such, positive psychology would be useful in understanding entrepreneurs' perseverance during the startup stage.

2.3.3 Positive Psychology

Positive psychology is a recent development and 'a science of positive subjective experience, positive individual traits, and positive institutions' that 'promises to improve quality of life' (Seligman & Csikszentmihalyi, 2000: 5). Furthermore, positive psychology deals with positive subjective experiences such as well-being, contentment, and happiness (Seligman & Csikszentmihalyi, 2000). Most psychology theories and studies have mainly focused on the negative aspects of human psychology; that is, how people manage negative situations or how people with psychological disorders are treated or cured The underlying logic of positive psychology is that people are motivated to maximize their positive experiences through rather benign situations (Seligman & Csikszentmihalyi, 2000). In short, positive psychology attempts to understand how people flourish in everyday situations.

To understand positive experience, however, scholars must first determine what is meant by positive; in other words, 'what is a good life?' (Waterman, 2007). The two schools of well-being studies that have developed as a result of the different interpretations of this question include the hedonic and eudaimonic views (Ryan & Deci, 2001). Hedonic well-being is often closely related to happiness studies and subjective well-being studies (Diener, 1984), and as such, this hedonic perspective regards maximum pleasure and minimum displeasure as a better life. The eudaimonic view, on the other hand, is based on the contention that fulfilling the purposes of life—achieving the full potential of the individual—is the better life (Ryan & Deci, 2001). The most prominent theory of eudaimonic well-being is self-determination theory (SDT),

which posits that human beings are driven to achieve a meaningful life (Deci & Ryan, 2002). In the following section, these two schools of thoughts are presented.

2.3.4 Hedonic Well-being

The hedonic view of well-being is closely related to the studies on subjective well-being and happiness (Diener, 1984). According to the hedonic view, well-being is about experiencing pleasure while minimizing pain/displeasure. The major starting point for understanding is the hedonic psychology literature (Kahneman et al., 1999). Hedonic psychology deals with the full range of hedonic experiences – joy, pleasure, pain, depression, ecstasy, and enjoyment (Kahneman et al., 1999). The hedonic psychology framework analyzes people's experiences with regard to what they feel, how they evaluate an experience, and what guides their future decisions. The basic assumption is that people are driven to maximize their future hedonic experience level—the most pleasure and least displeasure.

When examining people's experiences, however, the causes of pleasure/displeasure differ greatly for individuals and based on timing and contexts. As people do not have the complete information on choices, and their preferences are never stable, the hedonic view of well-being contends that people make rational choices in maximizing their future hedonic experiences (Kahneman & Thaler, 1991). Thus, hedonic psychology attempts to capture moment-to-moment experiences to understand people's ever-changing preferences and to understand why people behave in predictable ways. The measurement of happiness is an important topic in subjective well-being studies. Thus far, though many scales have been used, most measurement scales show moderate correlation (Diener, 1984). On the other hand, when examining what contributes to happiness, no single major factor explains enough of the variance as income, personality, and demographic characteristics all influence the level of happiness, though it seems that many

factors contribute simultaneously to happiness (Diener, 1984). For example, the role of income in one's level of happiness continues to be debated (Diener, Ng, Harter, & Arora, 2010; Kahneman & Deaton, 2010). The above-mentioned points will be summarized herein with respect to the research design.

In entrepreneurship research, happiness among the founders has been examined in the context of what makes entrepreneurs happy. Blanchflower and Oswald (1992) have measured entrepreneurs' satisfaction levels in the US and UK and found higher levels of satisfaction among the self-employed than among the employed. Happiness is measured at the utility level from their overall satisfaction with their jobs. Similarly, Carree and Verheul (2012) examine what contributes to entrepreneurs' happiness, though they interchangeably use the terms job satisfaction and happiness. Psychological well-being is measured as the psychological burden of business startups, and it does not necessarily correspond to studies on happiness.

Overall, happiness has been attracting much attention as a behavioral goal and driver of human behavior. However, the concept has not been fully integrated into entrepreneurship research, especially when explaining entrepreneurial behavior or the perseverance of the entrepreneur. In this thesis, I attempt to capture the hedonic aspect of well-being in the startup process to determine whether this aspect indeed explains entrepreneurial behavior during the startup processes.

2.3.5 Eudaimonic Well-being

In contrast to the hedonic view of well-being, scholars suggest a somewhat overlapping, yet separate, view of well-being, namely, eudaimonic well-being (Ryan & Deci, 2001). Eudaimonic well-being is defined as 'the extent to which a person is fully functioning' (150:

Ryan & Deci, 2001), and it separates well-being from feelings of positive emotions. As such, this view holds that self-realization is the central tenet of well-being[5] (Ryan & Deci, 2001), thus striving to achieve the full potential of oneself means greater well-being. The prominent theory of eudaimonic well-being is self-determination theory (SDT), which posits that fulfilling basic psychological needs—autonomy, competence, and relatedness—leads to well-being and that human beings are driven to fulfill these needs in their lives (Ryan & Deci, 2001).

Eudaimonic well-being is not about happiness or subjective well-being that focuses on life satisfaction and positive moods. For example, some people may be pursuing personal goals in such an intense manner that they do not feel happy, though they may be fulfilling psychological needs such as competence and a feeling of being 'fully-functioning' as a person. SDT instead suggests that fulfilling basic psychological needs results in both subjective well-being (happiness) and eudaimonic well-being, since people who fulfill their basic psychological needs feel an increased positive affect as an outcome of a eudaimonic life (Ryan & Deci, 2001).

Most importantly, the eudaimonic view emphasizes the different aspects of people's behavior from a hedonic view, that is, people's behavior to pursue and strive for a goal. Ryan and Deci (2001)suggest that 'the most interesting results may be those that highlight factors leading to divergence rather than just convergence in the hedonic and eudaimonic indicators of well-being' (Ryan & Deci, 2001: 148). As such, eudaimonic well-being could explain entrepreneurs' career choices that do not maximize income since materialistic goals alone do not fulfill people's basic psychological needs (autonomy, competence, relatedness), thus this area of

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[5] In a similar manner, psychologists have also suggested an overlapping yet distinct concept: psychological well-being (PWB). PWB consists of six dimensions: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness (Keyes, Shmotkin, & Ryff, 2002).

literature would imply that an entrepreneur's career choice must offer other benefits that fulfill these psychological needs as they strive to achieve goals.

2.3.6 Summary

As the two different views of well-being—hedonic and eudaimonic—complement each other (Ryan & Deci, 2001), this thesis builds a framework integrating these two views of well-being as the basis for explaining entrepreneurs' persisting efforts during their startup processes. Based on SDT, I posit that entrepreneurs are driven to fulfill their basic psychological needs – autonomy, relatedness, and competence. Pursuing materialistic goals itself would not result in life satisfaction, thus entrepreneurs deviate from what traditional economic frameworks assume (e.g., profit maximization). While entrepreneurs are driven to fulfill basic psychological needs, actions taken to fulfill those needs produce affective states, both positive and negative in their daily lives. The hedonic psychologist assumes that people make choices to maximize their hedonic experiences, even if it harms their well-being (e.g., smoking, drinking). From the hedonic view, I assume that everyday decisions made by entrepreneurs are likely to be explained by hedonic psychology frameworks such that entrepreneurs behave in ways to maximize pleasure and minimize displeasure. Eudaimonic well-being or basic psychological needs satisfaction would play a more foundational role as the driver of entrepreneurship than hedonic well-being.

I also argue that entrepreneurs engage in manipulation of their affective states on the basis of these two views of well-being. Entrepreneurs are driven to satisfy their basic psychological needs, and as a result, they feel better when those needs are fulfilled. Once entrepreneurs learn that certain actions result in more positive affects because such actions fulfill psychological needs, they will continue to engage in similar actions to maximize their hedonic

experience level. This view explains entrepreneurial decisions such as serial entrepreneurs –

why some entrepreneurs leave their successful business to engage in another startup process.

Entrepreneurs are driven to feel better, and such moments are more prevalent when their

psychological needs are fulfilled. From this proposition, persevering entrepreneurs are good at

feeling good and at satisfying their psychological needs through what they control during the

startup processes.

2.4 Research Design

As I have summarized, entrepreneurship research has been silent about how

entrepreneurs persevere during the startup processes. Many motivation theories have been used

to explain the career choice—whether to start or quit, yet we are about to see motivation theories

that explain how entrepreneurs keep working toward their goals for a prolonged period of time

without seeing tangible achievements. Since theories are absent, I first need to build theory

(Edmondson & Mcmanus, 2007). After building a theoretical framework, I will then need to

design research that enables researchers to test the theory. In order to achieve these purposes, I

need a specific research design that captures the startup processes in great details, such as

entrepreneurs' actions, affect, and cognition. Thus, in this section, I summarize literature that

informs the research design of this thesis.

2.4.1 Conceptualizing Processes

Process aspect of entrepreneurship tends to be treated in a retrospective manner—for

example, interviews to entrepreneurs or surveys to entrepreneurs often ask them to recall what

they did in the past. This gives us biased views of the entrepreneurship process since many

people justify the past process based on the current results (Erdfelder & Buchner, 1998; Pohl,

2007). As shown in the previous sections, however, capturing people's perception and

experience as they experience it informs the underlying mechanisms of behavior without

recollection bias (Kahneman, 2005). In this section, I first introduce the literature of process

study in management and entrepreneurship. This thesis requires the substantive conception of

process as a research design. Next, I summarize the literature on affect/emotion since the

theoretical framework of well-being studies use affect/emotions for measurement. The summary

highlights the recent development of affect studies in management and entrepreneurship, thus

shows the potential contribution this thesis would make.

2.4.1.1 The Meaning of Process

In management, studying process has multiple meanings and depending on the meaning,

the research design varies (Van De Ven, 1992). Researchers typically use the notion of process

in three ways: a) a causal link between independent and dependent variables, b) a variable as

actions of individuals / organizations, and c) a sequence of events to show changes over time

(Van De Ven, 1992). In the first usage, the process is not observed but is a black box to explain

why independent variables give certain degree of variance to dependent variables. The second

usage, process as a category, changes the meaning depending on a study. The process might be

defined as a performance, and is given a numeric value based on scale (low – high). This usage

only shows whether the process variable has changed over time, not how the process changed.

The third meaning, process as a sequence of events, focuses on how changes occur and examines

the underlying factors that lead to such changes. This meaning requires researchers to put the

actor in the center of the process and observe the sequence of events and activities around the

actor (Van De Ven, 1992).

This thesis answers to the question, 'how do entrepreneurs persevere during the startup processes?' As shown in the previous sections, an entrepreneur's decision preferences change across time and contexts. Effectuation theory points out that entrepreneurs' goals might change over time, and their paths may be non-linear (Sarasvathy, 2001, 2008). Thus, I study the entrepreneurial process in the third meaning, process as a sequence of events. In order to capture the changes over time, I need a specific research design—capturing entrepreneurs' perception and experience as they experience them, with little recollection bias.

In entrepreneurship research, the process view is also summarized as contrasting views: retrospective and substantive. The retrospective view is more suited for the process studies in the first and second meanings (causal link or a variable) of van de Ven's categorization of process (van de Ven, 1992). Yet retrospective studies often bias the findings since knowing outcomes of certain events alters the perception of people and fail to capture the change over time. Thus, in order to study the process as sequence of events, real-time data collection – data without the knowledge of outcomes – is desirable (Van De Ven, 1992). To study processes as a sequence of events, entrepreneurship research with substantive view is in great need, yet the call for re-constructing processes from entrepreneurs' perspectives has come mostly unanswered (Dimov, 2011).

2.4.1.2 Retrospective View of Entrepreneurial Process

As summarized in the previous sections, entrepreneurship research has often taken a rather linear view of entrepreneurial process. In other words, researchers are interested in what factors would lead entrepreneurs to achieve profit, growth, or sometimes to close their businesses – the effect of independent variables on a dependent variable. In linear view of process, the focus become explaining the variance, or entrepreneur's behavioral deviation from the most

efficient path to achieving their goals. Although many scholars acknowledge that the process is actually non-linear, non-linearity in this context often means different orders of sequence or a simultaneity of certain steps (e.g., Shane, 2003).

The linear view enables us to statistically analyze and predict the relationship between antecedents and their outcomes, imposing the assumption of ceteris paribus. In other words, scholars need to assume that entrepreneurs make a rational decision in optimizing the outcome (e.g., maximum profits, maximum psychic income) considering various antecedents, and all the other factors should be treated as constant and stable (Dimov, 2011). For example, we can analyze the relationship between a new venture's performance and entrepreneur's educational background, assuming that an entrepreneur's education has influence on the venture's performance holding all else constant. This view has resulted in various entrepreneurship policy recommendations and advice for entrepreneurs, showing what factors would influence profitability or achieving sales. Thus, in entrepreneurship research, process has been often treated as a connecting device between independent and dependent variables, imposing the assumption of ceteris paribus.

The retrospective, linear view imposes a framework that assumes process or time passage connects the dependent variables (outcomes) with independent variables (antecedents). For example, traits, cognition, and industry environment are treated as antecedents of entrepreneurial outcomes such as opportunity discovery, opportunity exploitation, or new venture performance. In so doing, scholars implicitly assume that dependent variables such as opportunity discovery, opportunity exploitation, or new venture performance, are the goals of entrepreneurs—goals are fixed in this view and entrepreneurs always try to achieve the goals throughout the process. This

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framework thus implicitly adopts the assumption that entrepreneurial decisions are always made with stable preferences.

Yet, this thesis challenges this assumption that entrepreneurs' decision preferences do not change. I instead examine what guides entrepreneurial decisions and behavior throughout the process. The retrospective view does not allow me to examine the entrepreneur's behavioral change over time. I take the position that entrepreneurs make an ad hoc decision at each point in time. The decision might be made for profit maximization, autonomy, happiness, or basic psychological needs satisfaction. Probably all these factors influence entrepreneurs' different types of decisions. Process theory implies that studying a sequence of events leading to the change would shed light on the development of process of ideas, strategies, or organizations (Van De Ven, 1992). In order to develop process theories, a sequence of events has to be observed at each point in time. Thus, I take research designs that have used in well-being studies which correspond to process research.

In the next section, I introduce the other view of entrepreneurial processes, largely based on the perspectives of entrepreneurs who are facing unknown and uncertain future.

2.4.1.3 Substantive Conception of Entrepreneurial Process

The other important perspective of the entrepreneurial process is a 'forward-looking' perspective (Dimov, 2007). This view posits that an entrepreneur's goal setting is not necessarily a linear and straight path. Dimov (2011) radically challenges the current dominating view of entrepreneurship as a 'formal' conception which imposes a linear assumption to entrepreneurship processes, thus makes up overlook what actually occurs in the startup processes. Instead, he insists on a substantive conception of entrepreneurship behavior and

process. For example, the current views of entrepreneurial opportunity are dominated by the formal conception of entrepreneurial behavior; the underlying assumption is that entrepreneurs behave in a way to maximize their utility levels and use the best means to achieve such ends. In the formal conception, 'opportunity' is just an imaginative construct; it is exogenously defined and given a role to connect entrepreneurs' action and its consequences, and positioned as a central driver of entrepreneurial behaviors only for analytical purpose (Dimov, 2011). In contrast, the substantive conception of entrepreneurship views the entrepreneurship process from entrepreneurs' perspectives to understand the paths entrepreneurs eventually take.

The substantive conception is interested in making sense of how entrepreneurs act as well as in theorizing about entrepreneurial behaviors and actions through an inductive approach. In this conception, entrepreneurial opportunity exists in the interaction between entrepreneurs and their environments, and such opportunities themselves evolve and change as entrepreneurs take actions and make decisions based on their perception of environment and expectations (Dimov, 2011).

In a similar manner, Sarasvathy (2001) also makes an argument that entrepreneurs need not pursue pre-determined goals in a linear fashion; instead, many entrepreneurs may use effectual thinking in actually creating goals with available means for them (Sarasvathy, 2008). When goals are clearly set, many people would choose the best measures to achieve the goal; this is managerial thinking and it is suited for achieving efficiency. When the future is uncertain, however, people create goals based on what is available to them; this is effectual thinking and the order of means-ends is reversed from managerial thinking. A sequence of people's decision-making thus cannot be expressed in a tree structure, but 'overlapping semi-lattice' (Sarasvathy,

2008, p. 87). With high uncertainty in the process such as pricing products and marketing into a new areas, entrepreneurs often have to use non-causation type logic to determine their behaviors.

This stream of theories indicates that entrepreneurs might not have a clear set of goals or directions in place, but within a certain range of preference, they decide what has to be done and act based on such an ad hoc decision. This view explains that future paths leading to a goal are not straight and linear processes and that goals might not be the major driver of entrepreneurial process. Rather, this view highlights the importance of circumstance in which an entrepreneur acts and makes decisions. Each entrepreneur has to make decisions constantly, either to pursue clearly determined goals or sometimes to create their own new goals.

The call for longitudinal studies to examine entrepreneurship process has been made (Davidsson, 2006; Davidsson & Wiklund, 2001) since we need to consider the effects of time passage and time context on the variables of our interests. The prospective view or substantive conception urges us that we need to pay attention to the potential paths entrepreneurs can take, which are not only infinite at each point in time but also are quite complex linking back and forth with past and future events. The perceived future for each entrepreneur is yet to unfold and undetermined, not necessarily leading straight to their desired goal.

Although this view sounds promising, we are yet to see research designs to capture what this view distinctively produces. Even if we agree that entrepreneurs make decisions facing an uncertain future and possibly indefinite future paths, a very limited number of studies has captured unique dimensions of entrepreneurial decision making under uncertainty (Sarasvathy, 2008). This view also does not address the perseverance of entrepreneurs—why entrepreneurs stay engaged in the startup processes for a long period of time.

I intend to contribute to the advancement of entrepreneurship process research by incorporating research methods that capture the non-linear process. Well-being studies, especially hedonic psychology, offer what substantive conception of process calls for, and enables us to capture the unique phenomena that might have been overlooked under the retrospective view of processes. Based on the past studies that capture people's behavior, Study 1 uses entrepreneurs' diary blogs to reconstruct the entrepreneurial processes as entrepreneurs perceive the future at each point in time. Study 2 modifies a type of diary methods which has been also developed in well-being studies (Kahneman, 2005) so that we would be able to capture entrepreneurs' daily lives. The details of research design are explained in chapters 3 and 4.

2.4.2 Capturing Affect and Well-being

Capturing affect in the context of this thesis places a challenge; affect changes frequently throughout a day and there could be significant bias if the data are collected at a later time (Stone & Shiffman, 1994). However, the efforts in capturing what people do and experience in real time have evolved in medicine and behavioral science fields. In this section, I summarize two aspects that are relevant in designing this thesis: capturing real-time data in natural settings and capturing affect and well-being.

2.4.2.1 Real-time Data Collection

Ecological Momentary Assessment (EMA) or Ecological Momentary Intervention (EMI) research utilizes data collection methods that repeatedly collect 'real-time data on participant's momentary states in the natural environment'(Stone, Shiffman, Atienza, & Nebeling, 2007b: 3) , thus 'maximizing ecological validity while avoiding retrospective recall' (Stone & Shiffman, 1994: 199). EMA/EMI methods are characterized with four qualities: 1) assessment of phenomena at the moment of occurrence, 2) data sampling at relevant moments, not at the

convenience of researchers or participants, 3) repeated observations, and 4) data collection in the natural environment (Stone & Shiffman, 1994).

EMA is designed to avoid biases around people's memory or recalling past events (Shiffman, Stone, & Hufford, 2008). The major concern is that when people are asked to recall certain events or experiences in the past, there is systematic bias, involuntarily and unintentionally, that distort past events (Shiffman et al., 2008; Stone, Shiffman, & Devries, 1999). Cognitive processes significantly influences the recall and 'autobiographical memory (memory from our own experience)' (Stone et al., 2007b: 6). Significant, unique, or salient experiences are likely to be encoded and put in memory but most routine experiences are not stored in memory, which makes them harder to recall (Shiffman et al., 2008).

When asked to recall minor, daily experiences, people search and collect pieces of information and reconstruct the experience (Shiffman et al., 2008). Such heuristics strategies cause bias: effort after meaning, retroactive reconstruction, reconstruction bias, and current state bias (Stone & Shiffman, 1994). Effort after meaning occurs when a person reconstruct an event so that the recall is consistent with the person's view of how human in general or he/she should behave (Stone & Shiffman, 1994). Retroactive reconstruction is similar to effort after meaning, and a person asked to recall an event reconstruct the event while knowing what happened after the event (Schwarz, 2007; Stone & Shiffman, 1994). Reconstruction bias is a general term to explain people's strategy in recalling an event while relying on availability of information as well as on the ease of access to the information (Stone & Shiffman, 1994). The current state of the person also influences the accessibility of information as well as the recall of the content of the past experience (Shiffman et al., 2008; Stone & Shiffman, 1994). Another important aspect of recall is that when people are asked to 'summarize' the states for an extended period of time

('how happy were you, on average, yesterday?), people do not actually average such events but rather estimate the summary based on significant events or lengths of certain events (Schwarz, 2007). In addition, memory decays; salient and significant events are likely to be stored in memory while minor, daily events are not (Shiffman & Stone, 1998). In short, events of minor significance that occur daily and frequently have to be captured real time in order to avoid the reporter's bias.

EMA/EMI can use a wide range of data collection methods, and the nature of event and experience in which researchers are interested mainly determine the design. Major methods include diaries (pencil and paper or electronic), behavioral observation, self-monitoring, ambulatory monitoring time budget studies, Experience Sampling Method (ESM) (Stone et al., 2007b), and the Day Reconstruction Method (DRM) (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004a).

Diaries or diary methods have been long used in collecting people's daily experiences in the natural setting (Bolger, Davis, & Rafaeli, 2003). The text data are rich in individual's thoughts and emotions (Green, Rafaeli, Bolger, Shrout, & Reis, 2006). Such data allow researchers to understand the contexts of events and how each event and person's perception evolve over time. Diary can be kept using either paper or electronic devices (Bolger, Shrout, Green, Rafaeli, & Reis, 2006; Broderick & Stone, 2006; Green et al., 2006; Takarangi, Garry, & Loftus, 2006; Tennen, Affleck, Coyne, Larsen, & Delongis, 2006), and depending on the research question, the frequency can be time-based (e.g., one day), fixed schedules (e.g., interval), variable or random, and event-based (e.g., right after a certain event occurs) (Bolger et al., 2003). Diary methods are suitable for capturing person-level information, within-person

change over time, and individual differences in within-person change over time while it can also be used for a causal analysis of within-person changes (Bolger et al., 2003).

Behavioral observation is often used for research focusing on behavior rather than subjective state (Stone et al., 2007b). Researchers are trained before the data collection, and observe participants for a limited amount of time while coding participants' behavior (e.g., Naber et al., 2008; Robertson et al., 2004). This method requires resources (skilled researchers and training) as well as time for data collection. Thus, behavioral observation is mostly used in conjunction with other data collection method as complementary data.

Self-monitoring has been often used in conjunction with behavior therapy (Stone et al., 2007b). Participants record a targeted event such as smoking (Shiffman et al., 2000) or drinking (Litt, Cooney, & Morse, 1998) as well as the event's antecedents and resulted states. Although useful especially in behavioral change, it has been also pointed out that the self-monitoring behavior has its own effect in changing participants' behavior; people pay more attention to their own behavior thus encourage behavioral change (Sieck & Mcfall, 1976).

Ambulatory monitoring is an extension of behavioral data, and has been used to collect physiological data (Stone et al., 2007b). Devices are used to monitor and record blood pressure (O'brien et al., 2000), heart rate (Farrell et al., 1991), and physical movement such as fall (Tamura, Yoshimura, Horiuchi, Higashi, & Fujimoto, 2000). The data is often combined with participants' diaries to show the context of collected data (Stone et al., 2007b).

Time-budget research is concerned about how people spend time, and has been mostly used to contrast the difference by geographical locations/countries (Szalai, 1966b) or gender (Bittman & Wajcman, 2000). Time budget carries information on the value of non-market activities—how people allocate non-monetary resources, time, to various activities. Its

application thus extends to urban planning (Anderson, 1971) as well as tourism (Pearce, 1988). In collecting data, researchers use either survey/diary type of instruments in which participants record their time usage (Knauth, Kiesswetter, Ottman, Karvonen, & Rutenfranz, 1983), or interview participants directly to understand how individuals spent a day (Szalai, 1966a). This type of study gives researchers information on minor events such as leisure or break, which is usually hard to correctly recall (Stone et al., 2007b).

Experience Sampling Method (ESM) was developed based on the idea that researchers can sample people's daily lives at an interval or random times (Csikszentmihalyi & Larson, 1987). Originally started with a beeper as a reminder to record their states (Diener, Napa Scollon, & Prieto, 2009b; Stone et al., 2007b), with the development of PDAs and smartphones, the potential for data collection and processing has vastly increased (Oorschot, Kwapil, Delespaul, & Myin-Germeys, 2009; Uy, Foo, & Aguinis, 2010). Participants receive signals/reminders to fill out a survey multiple times a day for on average two-three weeks (Oorschot et al., 2009; Uy et al., 2010). Most importantly, the method allows researcher to collect data on people's experience—thoughts and emotions from the participants' perspectives. The limitation of this method is a rather high attrition rate (Christensen, Barrett, Bliss-Moreau, Lebo, & Kaschub, 2003) as well as the lack of time budget data (Kahneman et al., 2004a). Since ESM measures participants' experience at multiple times a day for more than two weeks, motivating participants to record their experience within a certain time frame as well as for the duration of data collection becomes a challenge (Christensen et al., 2003; Uy et al., 2010). ESM is also designed to collect data at multiple times with intervals, thus researchers are likely to miss information during such intervals. Yet, this powerful data collection tool offers detailed

information on people's daily lives, and has been applied to entrepreneurship context (Foo et al., 2009).

The DRM combines the benefits of time budget study and ESM's affect data collection (Kahneman et al., 2004a). By using ESM's approach to affect, DRM captures emotions and feelings as the participants experience with little recollection bias (Dockray et al., 2010). DRM asks participants to recall 'yesterday' as a sequence of activities that participants experienced. After rebuilding the whole day, then participants are asked to fill out the survey about the context of activity as well as affective experience (Kahneman et al., 2004a). The developers of DRM suggest that DRM is superior to ESM because DRM 'imposes less respondent burden; does not disrupt normal activities; and provides an assessment of contiguous episodes over a full day'(Kahneman et al., 2004a: 1777) in addition to time budget data collected from DRM.

EMA/EMI methods and tools were developed and evolved in separate fields, but with technology advancement as well as increased interests in understanding people's daily lives, the framework and tools for capturing people's real time experience in the normal setting have been integrated and evolving further (Stone et al., 2007b). This thesis takes advantage of this development, and capture entrepreneurs' experience during their startup processes to understand how they manage to keep motivated.

2.4.2.2 Affect and Well-being Scale

This thesis examines entrepreneurs' experience including their emotional experience. Emotions also influence their assessment of well-being (Kahneman et al., 1999). Capturing emotions and well-being requires careful planning in collecting data. In this section, I briefly summarize the literature on affect and life satisfaction/well-being measurement.

Definitions of emotions vary, and depending on research purpose, researchers need to select appropriate emotion measures (Larsen & Fredrickson, 1999). Emotions can be conceptualized as either discrete or dimensional (Frijda, 1999). Circumplex model (Russell, 1980a) corresponds to dimensional conceptualization of emotions, which assumes that emotions can be mapped on a circular model according to the two axis: negative-positive and high-low arousal. The model thus maps similar emotions close to each other (e.g., relaxed and calm) while 'opposite' emotions at 180 degrees away (e.g. miserable and happy) (Russell, 1980a). Researchers who take discrete conceptualization of emotions assume that each emotion has unique features that distinguish from each other (Ekman, 1992). Discrete conceptualization of emotions focuses on the meaningful distinction between emotions, while the dimensional view tend to blur the boundary of two adjacent emotions (for example, frustrated and annoyed) (Larsen & Fredrickson, 1999). If emotions are measured with discrete view of emotions, the results can be converted to dimensional view later, yet the opposite is impossible (Larsen & Fredrickson, 1999). Thus, researchers need to examine whether the distinction between two adjacent/similar emotions would be necessary or not.

Data collection methods of emotions also vary, and researchers need to consider theoretical underpinnings and characteristics of collected data. The methods include self-report, ratings by observer, facial measure, nervous system-based, brain-based, vocalization (content and stylistics), and emotion-sensitive tasks (Larsen & Fredrickson, 1999). Since this thesis will mainly rely on the person's experience of emotions, I summarize emotion measurement/scale through self-report.

Self-report measures assume that the person has the best understanding of his/her own emotional experiences and is willing to report such experiences (Larsen & Fredrickson, 1999).

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Single-item measures ask a question about a specific emotional construct (e.g., 'how happy are you?') (Larsen & Fredrickson, 1999). The potential response scale is either unipolar (e.g., 'not at all happy-extremely happy') or bipolar (e.g., 'unhappy-happy'), and often use Likert-type scales. Although single-item measures have problems such as representativeness and variance, these measures should be used when brevity of the measure is important (Larsen & Fredrickson, 1999). Majority of emotion measures are multiple-item instruments which often include lists of adjectives. The check list type of measures includes Mood Adjective Check List (MACL) (Nowlis, 1965) and Multiple Affect Adjective Check List (MAACL; later MAACL-R) (Zuckerman & Lubin, 1985). Since check list type of measures only indicate whether the respondent feels the specific emotion or not, the data do not imply the strengths of the emotions. Thus, emotion measurements with scale are commonly used in emotion research. The Positive Affect Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988b) is developed based on the concept of the circumplex model of affect (Russell, 1980a). The PANAS scale uses 5-point Likert scale (1: very slightly-5:extremely), with 20 emotion adjectives (e.g., excited, irritable) (Watson et al., 1988b). The PANAS scale has been criticized for the potential correlation between positive and negative affect (Larsen & Diener, 1992), yet the validity and reliability have been widely confirmed (Crawford & Henry, 2004). With the real-time capture of emotions and emotional experience, the PANAS scale could be too long, and researchers need to examine the tradeoff between the brevity and accuracy (Schimmack, 2003).

Life satisfaction and well-being measurements are related to affect measurements, yet have distinct features that require specific attention. Well-being studies measure people's good life, which often involves measurement of affect and satisfaction. In examining people's experience, however, what causes pleasure/displeasure and satisfaction differs greatly across

individual, time, and contexts. So far, many scales have been used to measure well-being and happiness, and most measurement scales show moderate correlation (Diener, 1984).

The Satisfaction With Life Scales (SWLS) was developed in order to measure life satisfaction in general (Diener, Emmons, Larsen, & Griffin, 1985). This measures the person's overall judgment of life, mostly by comparing his/her circumstances with what he/she believes to be appropriate life standard (Diener et al., 1985). The scale includes five items (e.g., 'in most ways my life is close to my ideal') with seven point Likert scale (e.g., 1: strongly disagree-7:strongly agree). Although SWLS do not measure affective or emotional well-being, the scale's reliability and validity have been tested and confirmed (Pavot & Diener, 1993). With the lack of emotional well-being measure, SWLS should be used with other affective measurement. Yet, the brevity and accuracy of SWLS are well-suited for real-time data capture (Pavot & Diener, 1993).

2.4.3 Summary

In order to understand how entrepreneurs persevere during their startup processes without achieving tangible results, I need a specific research design that captures a sequence of events while avoiding entrepreneurs' recollection bias. Well-being literature also informs that capturing affect in addition to perception of entrepreneurs would be important in understanding what drives entrepreneurs' behavior. Entrepreneurship research on the relationship between affect and cognition has just started, and there is a significant gap in our understanding of the subject (Baron, 2008; Foo et al., 2009; Uy et al., 2010). Entrepreneurs experience various emotions in their startup processes (Morris et al., 2010), yet we do not know how affect might influence entrepreneurial behavior and startup processes (Stanley, 2010). Thus, examining the influence of affect in the startup processes would help our understanding of entrepreneurial behavior (Baron,

2008). Especially, affect research in entrepreneurship needs a research design that captures the

process aspect of entrepreneurship—so far, most studies focus on the dispositional affect and its

influence on the firm performance (Baron, Hmieleski, & Henry, forthcoming; Baron, Tang, &

Hmieleski, 2011). Although such traits are important in determining the general behavioral

patterns of entrepreneurs, they do not necessarily explain how entrepreneurs manage to keep

putting efforts for startup regardless of their given characteristics. Thus, I take a substantive

conception of process and incorporate the conception in the thesis's research design. This

dissertation, in turn, is intended to contribute to the affect research in the entrepreneurship field

in both methodological and theoretical aspects.

2.5 Conclusion

As argued in this chapter, past research on entrepreneurial motivation has mainly focused

on career choice (self-employment); what motivates entrepreneurs to start businesses. Profit

motive and non-pecuniary motives have been examined to explain the high level of business

startup (Koellinger et al., 2007). Yet these studies only examine one major decision (to start

their own businesses) while imposing the assumption that entrepreneurs behave in ways to

achieve the goals they set out at the beginning. Theories of entrepreneurial motivation have been

silent about how or why entrepreneurs persevere during their startup processes despite financial

setbacks and high levels of stress (Carree & Verheul, 2012). Entrepreneurial motivation theory

needs to incorporate entrepreneurs' perception throughout their startup processes.

In this chapter, I argued the urgent need for a comprehensive framework for theorizing

entrepreneurial motivation toward perseverance. It is imperative to observe entrepreneurs'

experience as they experience it in order to understand what drives their behavior. Well-being

studies theoretically inform entrepreneurs' perseverance during the startup processes by presenting two possible drivers of behavior: happiness and basic psychological needs. Entrepreneurial behavior can be driven by the desire to maximize hedonic well-being (pleasure or happiness) as well as eudaimonic well-being (full potential of human being).

In order to further our understanding on entrepreneurs' perseverance, I need to observe entrepreneurs' perception and behavior at each point in time. I take a substantive conception of entrepreneurial process, and view the process as a sequence of events. Together, this dissertation will build a theoretical framework that explains entrepreneurs' perseverance during the startup process.

3. Study 1: Entrepreneurs' Perseverance during the Startup Process: A Multiple Case Study

3.1 Introduction

As seen in previous chapters, entrepreneurs' perseverance—how entrepreneurs keep making efforts toward founding their own businesses—has not been well theorized. Many entrepreneurs do not achieve profits for a few years, and about 60 percent of nascent entrepreneurs do not found a firm after two years (Reynolds & Curtin, 2008). Past entrepreneurial motivation theories have focused on the question about career choice of entrepreneurship, and do not necessarily address perseverance or making effort toward business startup for a prolonged period of time. For example, entrepreneurs are believed to miscalculate their future income thus choose self-employment over hired positions (Taylor, 1996). The role of non-pecuniary motives has been pointed out, but non-pecuniary benefits of business startup are also hard to assess—how much benefits are enough to compensate the loss of income? Are non-pecuniary benefits such as job satisfaction enough for nascent entrepreneurs to carry on their startup processes without achieving profits/sales for more than two years? In either explanation, we do not know how entrepreneurs keep making efforts toward business startup after not achieving their goals for a prolonged period.

Motivation theories try to explain the direction, strength, and duration of people's effort (Landy & Becker, 1987). Specifically, work motivation theories focus on employees' motivation in an organizational context where the goal and effort level are rather easy to assess. As mentioned above, however, entrepreneurs' efforts toward startup cannot be correctly assessed as to the achievement level against goals due to high uncertainty.

Thus, I tackle the puzzle—how do entrepreneurs keep making effort toward business startups while not achieving the goal itself for a long period of time? Some persevering entrepreneurs eventually found their businesses after more than two years of pre-founding period, and existing theoretical framework does not clearly explain what mechanisms contribute to such long-term perseverance.

In this study, I reconstruct the process of organization emergence from entrepreneurs' point of view, and identify the factors that enhance or hinder entrepreneurs' motivation for putting efforts toward business startups. I use a multiple-case study methodology (Eisenhardt, 1989; Yin, 2003), and analyze entrepreneurs' diary blogs from pre-launch to post launch period of their first product for on average two years period. Specifically, I analyzed entrepreneurs' affect (emotions and mood; Baron, 2008), cognition/thoughts, and actions/behavior during the business startup processes in order to identify the factors that influence entrepreneurs' motivations for making efforts toward business startups. The identified patterns were then compared to existing motivation theories and incorporated as a model of entrepreneurs' motivation for perseverance during the business startup.

As I mentioned in the first chapter of dissertation, entrepreneurs' behavior showed a consistent patterns as to what makes them keep making efforts toward realizing their business ideas in highly uncertain environments, regardless of the nature of their business ideas (charitable or for-profit). Especially, entrepreneurs' affect-behavior patterns marked three distinct stages of business startup: pre-launch, launching, and post-launch of the first product. Throughout the business startup process, entrepreneurs seem to manipulate their affect states through their actions/behavior in order to keep making efforts toward realizing their business ideas. In other words, since it is impossible to assess whether they are closer to achieving their

business goals or not, entrepreneurs instead need to feel good about themselves or what they do in order to keep their motivation toward business startup.

This study contributes to entrepreneurship literature by suggesting an alternative framework to capture the drivers of entrepreneurship: entrepreneurs' attempts to maximize their well-being, or to achieve contentment and happiness. I also contribute to affect literature by illustrating the role of affect as an outcome as well as a trigger of positive-affect-inducing behaviors. In addition, this study offers empirical observations on how two concepts of well-being (hedonic and eudaimonic) co-exist and influence people's decisions in real life settings, thus contributing to well-being literature.

3.2 Research Questions

How do entrepreneurs keep making efforts for realizing their business ideas, without achieving tangible goals for a long period of time? How do various drivers of entrepreneurial behavior (profit motive as well as non-pecuniary motive) operate during the business startup processes?

3.3 Methods

In order to answer the research questions, I conducted a multiple-case study (Eisenhardt, 1989; Yin, 2003) with theoretical sampling approach (Corbin & Strauss, 2008; Locke, 2001). Qualitative design is suitable for asking an open-ended question (Edmondson & Mcmanus, 2007). I used nine entrepreneurs' diary blogs as a main data source to capture a series of decisions during their entrepreneurship processes.

3.3.1 Data Source and Sampling

The idea of observing entrepreneurs' daily experience throughout their business startup process cannot be easily executed without the access to their daily thoughts and records of their days. It would be ideal if I could follow multiple entrepreneurs during their business startup periods, yet it is not feasible. Instead, I collected entrepreneurs' diary blogs, and analyzed on average for two years of their startup processes. Many people keep diaries in the form of blogs—publicly accessible web sites where people write their thoughts and events. Authors of diary blogs mostly document their personal lives (Nardi, Schiano, Gumbrecht, & Swartz, 2004), and reveal information that is unlikely to be told via face-to-face communication (Miura & Yamashita, 2007). Although the intentions of blogging is for social interaction and contents are controlled, bloggers reveal emotional states in blog diaries (Nardi, Schiano, & Gumbrecht, 2004). The automated analysis software for mood analysis of blog contents is still being developed (Balog, Mishne, & De Rijke, 2006; Mishne, 2005), but the basic assumption is that the language a person uses reflect the affect state of the person and researchers can map the affective state on dimensions such as positive and negative. Thus, I used blog diaries to reconstruct entrepreneurs' experiences during their business startups, especially focusing on affect, thoughts, and actions that lead to their motivation to put efforts toward their business startups.

Blog data as a main data source are ideal for the research questions. First, the data show events, activities, actions, and emotions as they occur at a particular point in time. Diary methods have been employed in management research (Balogun & Johnson, 2004), and are well-suited for collecting in-depth data with little time discrepancy because it avoids the problems of memory decay, recollection bias, and reverse causality while offering rich text data for

identifying patterns (Bolger et al., 2003). Second, blog systems verify the date of entry with a time stamp. Third, the data contain less social desirability in the dimensions of affect. Blogs are kept for the purpose of being read, but the data were not generated specifically for this research—bloggers are unaware of my research intention on reading their emotions, thoughts, and actions. Although entrepreneurs do not necessarily reveal all their personal lives or secrets in blogs, it is also highly unlikely they consistently fake their feelings for more than a year. Thus, I believe that diary blog serve as the ideal data source for answering my research questions.

I used theoretical sampling approach (Corbin & Strauss, 2008; Locke, 2001), and selected cases that are 'particularly suitable for illuminating and extending relationships and logic among constructs' (Eisenhardt & Graebner, 2007: 27). I initially sampled 100 blogs using blog search engines, simply using the criteria of the frequency and duration of diary (at least twice a month entry on average, and more than one year of entry). After reading all the 100 blogs, I selected one blog out of the 100 and refined the search criteria. The most important criterion was that the diary should reveal his/her perception in order for me to identify major constructs that play roles during the entrepreneurship process. Blogs that mainly promote their products and firms were thus discarded. I also discarded blogs that authors write from outside of North America, since different business environment might influence their motivations toward business startups. Yet I included both commercial entrepreneurs and social entrepreneurs since the mix of these two types would help me understand the common mechanism that drives their behavior. As a result, I sampled nine entrepreneurs' blogs from more than 5,000 blogs.

The selected blogs were kept for 2-5 years of duration, and on average, each blog had more than 70 entries per year. Thus, in total, this study covers more than 2,000 diary entries.

These entrepreneurs seem to be comfortable with using websites, computer, or technology.

Some entrepreneurs use multiple social media including Twitter and Facebook, and often blog

more than once a day. The entrepreneurs are a mix of serial entrepreneurs (Westhead & Wright,

1998) and novice/first time entrepreneurs. Their ages range from mid-20s to 50s. Although

these entrepreneurs are aware of public access to their blog and writing, they reveal personal

information such as whereabouts (e.g., when and where to go on vacation with whom), cell

phone number, their plan for coming weeks, and what is happening to their relatives and close

friends. In order to protect the privacy of entrepreneurs, however, I used the pseudonym for each

entrepreneur and some descriptions about each entrepreneur are intentionally made vague. The

brief description of cases is in Table 1.

Table 1: Case Description

	Analyzed Blog Duration	Business Idea	Additional Data Source	Notes on Entrepreneur
Nancy (Nonprofit)	September 2007 – April 2011 (147 entries)	Build a school in a developing nation; eventually would like to expand their microfinance scheme to all over the world	Press releases, Podcast interviews, Guest blog entries, Conference speech, Newspaper articles, Tweets (3,400+), Facebook, MySpace	Has a co-founder; the co-founder has to work full-time elsewhere to pay the bills. Did not pay salary for herself for 2 years.
Suzanne (Business consulting)	August 2006 – May 2008 (46 entries) + January 2009 – January 2011 (187 entries) *Video entries included	Career consulting, would like to become a billionaire as a motivational or inspirational speaker	Video entries, Newsletters, Guest blog entries, Blog comments (sometimes exceeds 100) & Tweets introducing her blogs, Facebook	Call herself as a typical entrepreneurial type; "Mom-preneur"
Ben (Smartphone business)	March 2008 – December 2010 (206 entries) * Video entries included	Business idea changes frequently, based on his co-founders and what seems to 'sell'. Switched from career consulting for students to mobile phone application	Video entries, Co-founder's blogs, Guest blog entries, Comments to other blogs, Tweets	Uses full-time job to supplement finance; "entrepreneurship as a lifestyle" and works on various startups
Mike (Consulting, software development)	November 2005 – December 2008 (242 entries)	Productivity improvement software; business ideas constantly change depending on where opportunities might lie	Comments to other blogs, interview with other entrepreneurs	First business 'failure' after three years. Used to work for a stable job.
Greg (Environment / sustainability)	December 2006 – March 2010 (136 entries)	Trying to change the human-planet relations, causing a systematic change in the world	Invited lectures, comments to other blogs, interviews	Serial entrepreneur; decided not to get involved in any more startup, yet started another business, resides in Canada
Tina (Nonprofit)	March 2007 – December 2009 (243 entries)	NGO consulting, educating NGOs for better management	Interviews, lectures	Serial entrepreneur; teaches NGO management courses at universities
Bruce (Web magazine)	October 2005 – December 2009 (747 entries)	Internet domain-related business, web-magazines on how to make money using internet	Comments, his comments to other blogs	Resides in Canada; "Blogpreneur"; writes monthly revenue reports; serial entrepreneur
Elena (Career & life consulting)	December 2006 – December 2011 (170 entries)	Educate women to start businesses, establish connections among women's groups to empower women	Comments, her interviews of other mompreneurs	"Mom-preneur"; has authored books. Works as a life coach
Joe (Software development)	June 2006 – November 2009 (111 entries)	Programmer, consulting on how to make most of internet/website	Comments, newsletter,	Reviews goals and achievement monthly; reads business books

Out of these nine entrepreneurs, I interviewed three entrepreneurs (Nancy, Suzanne, Ben). The purpose of interviews is to cross-examine what I found in the blogs as well as to analyze what they think about their own startup process. Although the interview data are not the main data source I use in my analysis, the interview data have been compared to the findings from the blog diary analysis.

3.3.2 Data Analysis

The unit of analysis for this study is the relationship between a factor (affect, thoughts, action) and motivation level for founding their business. For the purpose, I used qualitative software to manage the analysis results.

Specifically, after downloading data from each of the selected blog sites, I conducted a series of within-case analysis. Each case was coded for on average two years before I moved on to another case. Each case was analyzed in the following manner. First, I simply read through a series of blog entries to make sure that the blog is suitable as a case as well as to see if there is a time gap in the entries. I took notes as I read through the case, yet I did not start coding. Second, I collected supportive material such as organizational reports, newspaper articles, and the founder's or their organization's social networking sites (Twitter, Facebook, MySpace). These data were used to verify the contents of diary blogs as well as to find out what was going on when there was a long gap in blog entries. Third, I coded the texts.

The third and main step of the process, text coding, was implemented through revisions. The initial coding was done at sentence level with qualitative analysis software (NVivo)—I assigned codes of emotions such as angry, happy, and sad as well as major actions and motivation changes of the entrepreneur. 'Codes' here mean words and phrases that would be

used for identifying events. This initial coding process refined the research question and the focus of the study, yet the number of codes exceeded 1,500 and was not manageable to identify any patterns. Thus, I started the coding again for the second time with programmed key codes.

Specifically, I used language to measure emotions (Sweeny & Whissell, 1984), and programmed emotions that appear in the circumplex model of affect (Russell, 1980b). The emotion key codes are 'happy, delighted, excited, astonished, aroused, tense, alarmed, angry, afraid, annoyed, distressed, frustrated, miserable, sad, gloomy, depressed, bored, droopy, tired, sleepy, calm, relaxed, satisfied, at ease, content, serene, glad, pleased'(Russell, 1980b: 1166). The emotions are categorized in four quadrants based on two dimensions: high/low arousal level and positive/negative emotions (Russell, 1980). I also used general codes (Bogdan & Biklen, 1998) for identifying major events and constructs in the entrepreneurial processes. The suggested general codes are designed to capture details of settings, perspectives of people, processes, and relationships (Bogdan & Biklen, 1998). I coded three cases with this method. At this stage, however, the results were still chaotic. I coded too many emotions as well as events; emotions were too many to distinguish meaningful patterns, and many of events and actions were not much relevant to the motivation of entrepreneurs.

Thus, for the third time, I focused on 10 emotions (excited, glad/happy, satisfied, calm/relaxed, tired, bored, sad, frustrated, afraid, angry) while paying attention to other emotions from the second stage such as sleepy, depressed, and tense. When I coded these 10 emotions, however, I focused more on mapping the observed emotion in one quadrant—arousal level on the y-axis, and positive/negative continuum on the x-axis.

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Figure 1 Coded Emotions
(Russell, 1980; modified)
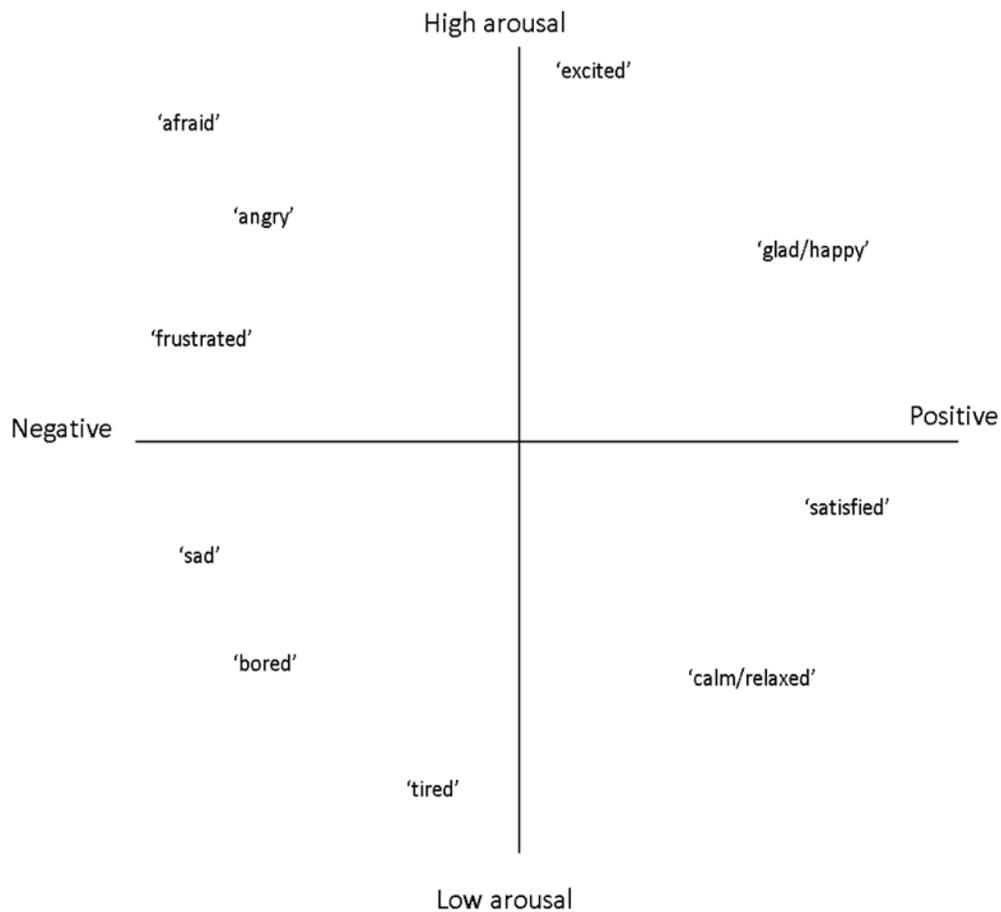
As to events and actions, I narrowed my coding efforts to major triggers of motivation changes in the entrepreneur's efforts toward startups, and evidences of their efforts toward business startup.

I also utilized the NVivo functions of categorizing lower order codes into a tree structure (higher-lower order codes) so that I can associate similar events/emotions with each other under an over-arching theme. For example, codes such as brother, mother, uncle are categorized a parent code, 'family'.

After the first case was coded with new programmed codes, I coded two more additional cases to see if the codes work for other cases. Through coding two more cases, I kept adding and modifying the code table.

Fourth, after coding three cases, I reviewed the coding patterns and saw if there are similar or dissimilar patterns across cases. Since I found the similar affect-behavior patterns across cases, I added six more cases to validate and examine the emerging patterns, and coded them with a consistent code table.

Fifth, after identifying patterns across cases, I reconciled the patterns with existing theories and generated the theoretical model.

The coding was initially done with NVivo, software to manage text/visual data and codes. I also tested software the LIWC (Linguistic Inquiry and Word Count: Pennebaker & Francis, 1999) and the DAL (Dictionary of Affect in Language: Sweeny & Whissell, 1984) to quantify emotion languages in the blog text. The DAL measures emotions along three dimensions: evaluation (pleasant/unpleasant), activation (passive/active), and imagery (mental picture), and gives scores on these dimensions (Sweeny & Whissell, 1984). The DAL also gives the average score in general written texts, thus enables comparison between the specific analyzed text and general written language. The LIWC contains detailed analysis on general language usage with over 70 dimensions. It counts each dimension's words frequency in the text, and report the percentage. Emotion languages are categorized into either positive (positive feelings, optimism, energy) or negative emotions (anxiety, anger, sad). These two programs have been developed based on vast amount of written English texts, and measure the frequency of emotion related words in texts. Since the DAL gives a numerical score for emotion language use, I

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mainly used the DAL for the analysis. The obtained results from the DAL are presented in the following sections to show the correlation between the manual coding results and the DAL results.

3.4 Findings

Through within-case analysis, I found that entrepreneurs go through the cycles of different affect states. The affect cycles experienced by each entrepreneur seem to have common patterns across cases. More precisely, in their own words, entrepreneurs experienced 'ups and downs of startup,' and their affective states also change from high arousal, positive affect to low arousal, negative affect. Typically, entrepreneurs before launching their products or services are passionate and excited about their new business ideas and they are driven to launch their new businesses. Toward the launch date, entrepreneurs' affect states are characterized as highly aroused in both positive (e.g., excited) and negative (e.g., afraid) ways. Yet once their businesses are established, they start to find mistakes in their planning or face little sales growth. Although still passionate about their businesses, entrepreneurs struggle to make their business more profitable and/or more successful. After launching their new businesses, as a result, entrepreneurs experience negative affective states such as frustration or depression more often than they did before launching their businesses. Eventually, entrepreneurs start working on their new business ideas or have a larger scale success than previous times. As their businesses establish legitimacy and achieve stability, their emotional experiences seem to be of smaller scales than their previous startup duration. This section describes this common pattern of affective states which the case entrepreneurs experienced, and how their associated motivation levels change during their startups.

3.4.1 Affect Patterns during Organization Emergence

I describe the identified patterns of entrepreneurs' affective states based on their business startup stages; pre-launch, launching, and post-launch of their first product. Although some entrepreneurs do have previous experience in business startup, when they launch a product/service in a new area, I treated it as 'first product' launch.

3.4.1.1 Pre-launch stage.

The time between a new business idea conception and actual launch seems to characterize the dynamic environment where entrepreneurs thrive. The texts from their blog diaries are filled with excitement. At the same time, entrepreneurs also experience anxiety often due to the unknown future and outcome. Overall, entrepreneurs typically show affective states of high arousal level in both positive and negative emotions.

Positive emotions are caused by small, often tangible achievements such as getting praised by friends and purchasing office equipment for their new business. Although the case entrepreneurs differed in the aspect of how feasible their business idea originally was, once the idea was transformed into a plan, entrepreneurs worked according to their plan. More precisely, all the entrepreneurs set various short-term goals until the launch date, or in a way, wrote down a to-do list for themselves. Ticking off their to-do list items comes with positive emotions such as glad/happy or satisfied/content. They also tracked and reported their progress on their blogs, inviting people to praise their efforts.

The most frequently observed positive emotion, excitement, was mostly associated with recognition or something new to them. Recognition at this stage seems to be an important factor for entrepreneurs to confirm their approach or perspective. For example, Mike was interviewed by a trade magazine when he launched the test website for his business. When he found how well his test site was praised in the magazine, Mike was ecstatic and fueled to work on details to make the site better. Although not all the entrepreneurs get recognized by experts or competitors, even comments on their effort from friends or family seem to give affirmation and motivation to work on the startup.

It also seems that this duration requires entrepreneurs to experience something new constantly. The entrepreneurs do complain the aspect that they have to do everything for themselves, from marketing to production. Most of them are aware of how minor things such as writing blog diaries take up their time. They sometimes get frustrated or pressured due to the amount of work they have to do. However, entrepreneurs are also proud of the fact that they learn new skills during this hectic time. After completing most of tasks, entrepreneurs feel happy about having done so much by themselves.

Since all the entrepreneurs had working experience in the corporate world, they often contrasted how different startup life had been and would be. Whenever they contrast the life as an employee and entrepreneur, they seem to confirm their career choice as an entrepreneur. The reason for choosing the career as an entrepreneur differs, but all persevering entrepreneurs realize how much they are enjoying the life as an entrepreneur. This excitement of a life as an entrepreneur is well-described in the following Nancy's statement.

"So, while I must admit I'm totally spent from weeks filled with all-nighters writing web content, editing our video, planning fundraisers, composing press releases, networking with potential donors and collaborators, building a board, drafting legal agreements, setting up bank accounts, arguing endlessly amongst ourselves about the "right" approach to each task, and doing everything else that goes along with setting up any entrepreneurial endeavor, I am more invigorated than I've been in a long time. Sleep is highly overrated."

Although this beginning stage is filled with descriptions of excitement and joy, this stage also shows many descriptions of high arousal, negative affect—frustration and fear. These negative emotions are mostly expressed after they came over such experiences, thus I interpreted the emotional ups and downs in the diaries carefully. Since most entrepreneurs write about negative experiences after they emotionally overcame the results, the diary descriptions tend to contain both positive and negative emotion words in the same text.

Fear is associated with the uncertainty of the future. Even for experienced entrepreneurs, new products or projects are always unpredictable, and make entrepreneurs wonder whether what they are about to do would be successful or right. The emotional experience about their new business idea is a mix of excitement and fear. Elena, who has a long experience in launching new project, describes this type of experience at the beginning of her new project;

"In my mind, when you're diving into something new or big, there are two kinds of fear that can come up. There's the "uh-oh" feeling in your gut .... I'm not sure if this is the right direction for me and there's the I am so scared, but so excited ...but so scared, but so excited kind of fear."

Frustration often comes from the lack of progress and support, or getting criticism. Entrepreneurs' startup process is a series of trial and error. Although entrepreneurs are confident about their business ideas to be successful and innovative, they cannot be sure until they launch the actual product or service. Elena writes about the beginning of her idea and the process before the official launch.

> *"I felt the hair stand up on the back of my neck. I remember thinking, "something is going on here and I have a feeling, it's bigger than me." Fast forward almost four years and numerous life changes later, and I have made the (crazy?) decision to cash out our savings/retirement and self-fund a* XX *[startup]. Our formal launch is this month and the response to the program has been incredibly encouraging… But, it doesn't mean I don't have many hours and days when I wonder "did I sign up for this?", "when do I get my old life back?" and "how do I sustain a* XX *emotionally and financially through its early stages?" And the answer is, "who knows?" … Who's to say what will unfold over the next twelve months…"*

As her description shows, while entrepreneurs believe in their ideas, they are also uncertain about how their business ideas would turn out until they officially launch their first products. Until the time they launch their first products, entrepreneurs do not know whether their business ideas are actually good enough to attract customers. As a result, they experience the mixed affective states until they launch the products.

Due to such uncertainty, entrepreneurs test their ideas by asking their friends or relatives for feedback, or talking to potential funders. Some entrepreneurs get affirmation that they are heading to the right direction, but other entrepreneurs get shocked by receiving criticism. Mike,

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after sending out emails to his friends to test his test website got 'stunned' after receiving negative reviews.

> *"Now let me preface this with one thing - there were many people who did offer constructive criticism, … so overall I am content with the results of my little test. But many people also ruthlessly tore it apart. It shocked me that some people absolutely HATED it and said that it's something that they would never use, nor did they think anyone else would use it. How could that be? Could they not at least respect the proposed innovation? I was absolutely stunned."*

I note that after this description, Mike went on to analyze why so many people hated his test site, and conclude that '*every entrepreneur will likely to go through these things*'. He concluded that he was happy regardless of the criticism, because he had learned from the experience. I note that entrepreneurs often use this twist to the negative events—'I learned from this'. It seems to be the common way to overcome negative events.

Other negative emotional experience includes threats to their innovative business ideas. Some entrepreneurs have found that other entrepreneurs had already developed the product or service in line with what they originally thought. For example, in early days of his business startup, Ben goes to a web-based technology conference and finds what they have just started to work on.

> *"It was a very eye-opening experience for me because I got to see with my own eyes how many web 2.0 companies are actually out there! There is a ridiculous amount of companies who are literally doing the same things… I had this idea for a Gen-Y generated XXX* (software/online products) *and had one of my team members start*

recruiting authors to build the blog; however, I went to the event and what do you think I saw? YYY (similar products to XXX). After taking a deep breath and looking at all of the companies at the event, I now understand the level of competition in the Web 2.0 industry and just how difficult it is to make it big and stand out above the crowd."

Similarly, Nance finds that her business idea (microfinance) is not innovative and many organizations have been involved with such initiatives. Nonetheless, persevering entrepreneurs seem to convert the shocking facts into learning experience, or from something negative to something positive. In the above example, Ben mentions that the web conference was a good learning opportunity for him to come up with better business ideas. Nancy looks at what other microfinance organizations do, and redefines her business as 'focusing on middle to larger level finance' thus 'not exactly microfinance'. It seems that potentially threatening facts for entrepreneurs have not discouraged these persevering entrepreneurs during the early stage of startups.

All the analyzed entrepreneurs show the mix of positive and negative affective states during the pre-launch stage. It seems that persevering entrepreneurs have managed to overcome the effects of negative emotions. As mentioned at the beginning of this section, I note that people probably do not express their negative experience until when they get over it. Yet I point out that these persevering entrepreneurs managed to reach certain positive conclusions or positive affect states. Most entrepreneurs struggle financially at this stage. Elena's husband got laid off during her startup, and she needed to reassess her business plan. Bruce, who reviews monthly income on the blog, describes his embarrassment of making little money. Ben constantly works on potential business ideas, but reaches to the point that he needs to borrow

money from his girlfriend. Anxiety is constantly felt. Yet, these persevering entrepreneurs overcome the anxiety with optimistic thoughts. Ben mentions;

> *"I have been working "non-stop" for 1.5 years on my startup company….I have made $8000 in savings last me this long, but now, I am at the brink of completely running out of money…. I will work for whatever they (potential clients) decide to give me. I feel that working alongside X* (potential client) *will be well worth any time or monetary sacrifices….if we can survive this economic crisis, we will come out ON TOP! I still got high hopes and energy which is more than half the battle."*

I also note that optimistic thoughts or positive affective states are sometimes the results of affirmation from society. Entrepreneurs seem to use their blogs and networks to get affirmation on what they have been doing. Joe periodically reviews what he has done in the past moth or year. His most frequent phrase is "I need to make sure I am on the right track and heading to the right direction." By revealing his review, his blog attracts encouraging and sympathetic comments. Similarly, Bruce announces his to-do list and reviews monthly, and gets admiration and encouragement on his blogs.

In sum, at the stage before entrepreneurs have their first products/service, entrepreneurs experience high arousal affective states in both positive and negative ways. Negative affective experiences are mostly fear and frustration. Positive affect states are mostly excitement. High uncertainty makes them afraid of the outcomes or future. The long to-do list makes them frustrated due to the lack of time and energy. Yet these persevering entrepreneurs overcome the negative experiences with a positive twist—calling it as learning experience, or get affirmation

from society. As a result, persevering entrepreneurs keep excited about the life as an entrepreneur, and keep pursuing their business ideas.

It should be also noted that these persevering entrepreneurs seem to focus on short-term, rather tangible goals, not on the longer-term business goals. Although they have long-term business goals, they need to work on tasks that are necessary to start their businesses. Entrepreneurs work hard, and they seem to be proud of the fact that they work hard. This is probably because it is hard to measure whether they are approaching their long-term business goals or not—if there is no clear criterion or template for business success, their efforts and steps toward business goals cannot be appropriately assessed as good or bad. As a result of such ambiguity and uncertainty, entrepreneurs seem to switch the focus to what they do or who they are. In other words, entrepreneurs need to affirm their own endeavor not against business goals but for the fact that who they are becoming as a result of their entrepreneurial effort.

3.4.1.2 Launching stage.

Although I separate pre-launch and launching stages, the transition is rather gradual and I do not assign launch date as the transition date. It is true that a certain date is their official 'sales' or 'launch' day and they write so, but such events seem to be so tightly embedded in the startup process that I rarely notice a hike or bump. In other words, the official launch day seems only one of many transition points in their startup process, and it does not dramatically changes what is going on in their lives or businesses.

Toward the official launch day, entrepreneurs' affective states are marked with high-arousal, positive affect, mostly excitement and happiness. The use of '!' increases, and emotional language increases—this could be because of their intention to promote the new

product launch, yet it is the general tendency across all the cases. The launch seems to mark a certain level of achievement for them, and entrepreneurs usually thank family, friends, or co-founders for their support so far. It seems to be the timing to reflect on their startup experiences. Elena writes on her experience when the launch nears;

> "*Whatever it* [startup results] *may be, I am grateful for the experiences thus far and while serving others is incredibly fulfilling.*"

Although they are happy about the product launch, entrepreneurs are also eager to know the response from customers. Entrepreneurs often check back their websites, comments from people, and how their businesses are doing. Entrepreneurs who use other social media such as Twitter and Facebook also write a lot through these other media. The gradual increase in their excitement level peaks at their official product launch, when entrepreneurs see tangible results for the first time. The official launch verifies their past efforts and entrepreneurs receive clear assessments of their achievement. Thus, the emotions and mood described around the official launch time are generally positive and show high-arousal level. The post written by Ben shows the typical excitement level of launching stage entrepreneurs.

> "*The time has finally come. We have sacrificed everything to get to this point: I gave up my full-time job,* [co-founders] *have given up full-time offers, and* [co-founder] *is risking getting deported. We have put blood, sweat, and tears into this product.*
> *Will we launch on time, or will the immense pressure and technical difficulties get the better of us? Watch and find out…*"

After the first product/service launch and having achieved the initial success, however, the environment around entrepreneurs changes. Many of the first-time tasks become routines, and the uncertainty surrounding their business dramatically decreases. Entrepreneurs have to execute many small-scale yet time consuming tasks for managing their businesses. Interestingly, during the pre-launch stage, this aspect of business is usually described as a 'typical entrepreneurial life.' Entrepreneurs are surprised by the fact that they have to do everything on their own, but they seem to enjoy the fact during the pre-launch stage. After launching stage, however, repeating the tasks feels mundane and boring, and sometimes, waste of their time. Greg writes his frustration.

> "*I've been filing the taxes and handling the bookkeeping myself since the beginning except for a short stint where I outsourced the annual filings… My frustration is that doing it myself is harder than it should be… I'm sure I'm not alone.*"

Launching stage seems to present a significant challenge to entrepreneurs. Although they know how to do the tasks better and more efficiently, the tasks do not challenge their mind any more. Their initial market—not only product but also various business exchanges—seems to be saturated by this stage. Bruce and Joe report their monthly achievement, and their numbers do not show much difference. I note that although Bruce is especially successful in securing enough income at this stage, he often writes about his lack of drive—entrepreneurs at this stage show a sign of guilt that they are not working as hard as they should be. Entrepreneurs are not meeting new people or getting strong affirmation for what they are doing as much as they used to during the pre-launch stage. On the blogs, the number of people who make comments significantly decreases. It seems that in exchange to the establishment of their organization's legitimacy, entrepreneurs receive less support and encouragement from society. In almost a mirroring

manner, the diary texts written by entrepreneurs show lower levels of excitement and joy from entrepreneurship.

At this stage, as a result, entrepreneurs' motivation seems to get lower. They seem to feel stuck—without major tangible results, new things that bring in excitement, or strong affirmation—and frustration is often observed. Two typical examples of this stage show their frustration, guilt, and uncertainty.

> **Nancy** *"For the past few weeks, I've been glued to my couch-turned-deskchair, part of my mind occupied with creating a plan for the next six months, the other impatiently obsessed with what we've yet to accomplish and sometimes overwhelming self-doubt. Though constantly feverishly busy, I've felt like I'm standing still, mired in a thick mud of fear."*

> **Joe** *"I felt that I am walking alone in the dark on my journey with only one small lamp. I know where I am heading to, but I am uncertain what I will run into. A dear?*[sic.] *A tree or a car…? So I started reaching out to local people like me. I am hoping to find other people who felt like walking alone in the dark. … I felt guilty that I did not actually code* [=programming] *everyday."*

As a result, launching stage is characterized by dominant negative affect states such as frustration, boredom, and sense of guilt for not working as much as they should be. Even with financially successful entrepreneurs at this stage, it seems that the success actually hinders their motivation to work on their startup. Bruce mentions such aspect as 'lack of threat' and 'getting comfortable'. Mike also uses the word 'too comfortable' and blames himself for not working as much as he should be.

Another factor that seems to reduce entrepreneurs' motivation is negative feedback—either direct criticism or failure. In combination with the amount of work and lack of time, entrepreneurs seem to feel lost at this stage.

Suzanne *"this morning I woke up with a case of the melancholies. It's nothing. It's everything. My daughter being* [away from Suzanne] *full time…. The instability of my business, where half of my launches fail or underperform, I'm constantly living on the edge, ….. The status or lack thereof of my bank account. The uncertainty of where I will be, in any part of my life, in 6 months from today….Most of the time all of those things* [startup events, family and love life] *are amazing and exciting, interesting and challenging, full of deliciousness and ecstasy. Today, I just feel blank. Unclear. Alone."*

Ben *"There are many times when I have gotten discouraged, felt like I was being crushed by the amount of work that I have, felt frustrated because the programmers weren't developing fast enough, felt alone because* [co-founder] *flew to* [city name] *for a business meeting, and felt like the company was going no where. The uncertainty, lack of money, lack of support from family and friends, and absurd competition is enough to make anyone run back to the corporate world."*

Nancy *"Of course there are moments, including several today, that are disappointing. This week, for instance, I just did not have enough hours. I ran up against a deadline today for submitting … for the* [competition for funding]*, and wasn't able to complete our entry to my satisfaction before the 5pm PST deadline…; our* [another competition for funding] *entry came in third or fourth place today & a few more votes would have made us one of finalists…"*

If entrepreneurs experience the negative low arousal affect state longer period of time, they think about getting a corporate job or quitting the process. They question why they are engaged in such troubles—startup brings a lot of difficulties. I note that these entrepreneurs have the alternative plan. For example, Mike, Bruce, and Ben mention that they would go back to the corporate world if their businesses cannot support them financially. Ben confesses such temptations, yet also confirms why he started his startup life.

> *"Last week I went through a severe depression. With no money flowing in, a lead*
>
> *developer that left the team, and student loans to pay off, I was pushed to my breaking*
>
> *point. I actually interviewed with a few firms… If you work in the corporate world, you*
>
> *will be forgotten, plain and simple. If you don't leave a legacy, if people forget about you*
>
> *the instance you leave this earth, and if your presence on this planet doesn't positively*
>
> *affect the people around you, then you might as well have not existed."*

Similarly, Mike often mentions how happy he is for doing what he loves, and even though he makes about a half of money that he used to make during his employed days, he confirms his motivation for starting his own business. After struggling for about six months of not getting enough funding, Nancy also experiences low arousal, negative affect state. She comes out from this negative affect state with a homerun success, which also brings her recognition and fame.

Interestingly, two entrepreneurs did not go through the doubt state. Greg and Tina do not specifically mention their low motivation or lower affective state at this stage. Although both of them show high arousal state before the product launch, their diary text does not show specific low arousal negative affect state after the launch. Their text lack high arousal affective state (e.g., excited) after the launch, but it does not threaten their motivation level. These two

entrepreneurs are serial entrepreneurs, and have extensive startup experience before the observed startup. It could be because of such previous experiences that they do not start questioning their current startup.

In sum, it seems that entrepreneurs face major challenges during launching stage, or after they launch their first product. There are many factors associated with the challenges—sometimes their first products/services are not 'good enough' to attract financial support and they run out of money. It could be because they are successful and they do not feel threats for working hard. The common pattern observed during this stage is the dominant, low-arousal, negative affect state. This affective state is especially striking since their pre-launch to official launch days are filled with excitement. It seems that this prolonged affect state triggers entrepreneurs to review and reflect on their startup process, and as a result, they need to confirm the reason they are engaged in business startups.

Launching stage is rather filled with self-doubt and loneliness. Entrepreneurs who exit this low-arousal, negative affect state seem to have a homerun success or a breakthrough with their thought; in other words, the entrepreneurs who continue to work on their business come to terms with why they are doing what they are doing.

3.4.1.3 Post-launch stage.

After getting out of the launching stage where low-arousal, negative affect dominates, entrepreneurs enter a mature stage where they have more recognition as well as stability. Recognition from society as a legitimate firm increases as they stay in business longer. Their customer base has expanded, and business network has grown. As stability in their environment

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increases, the predictability of their business path increases—as a result, it seems that business startup does not bring in as much excitement as it did during the pre-launch stage.

During this stage, entrepreneurs review their progress and think about growth strategy or new features to their existing product or services. If adding a new feature to their existing product, entrepreneurs get immediate results for such change, since most of their new features are tested by their existing customers. They soon know if their decisions led to success or not—excitement if success and disappointment if failure. Thus, the affect states that they experience during the post-launch stage change frequently. They feel positive affect (e.g., excited, happy) if they are engaging in new projects, while management tasks and failed initiatives make them feel negative affect states (e.g., frustrated, bored). They also often write that they do not have much to write on their blogs due to lack of new aspects in their businesses. In general, their affect level is not as highly aroused as in the pre-launch stage.

Unless they launch a new line of business or launch a growth strategy that requires them to learn new skills and different industry, their business decisions seem to be of smaller scale compared to the pre-launch stage.

In sum, after coming out from the doubt stage, entrepreneurs enter a stable stage of post launch. Entrepreneurs have achieved initial success, and they start to think about growth, second line of product/service, or another startup. Although entrepreneurs go through the frequent changes in their affect state, the arousal level is not as high as previous stages. By this time, entrepreneurs own stable firms, thus theories of entrepreneurs' perseverance change the focus—how entrepreneurs as manager need to manage their companies to achieve their business goals.

3.4.1.4 Summary

Throughout the startup processes, events are associated with certain affective states and in turn, the level of motivation. The pattern is summarized in Table 2.

Table 2: Events and Associated Affect Dimensions

Events / Behavior / Context	Affective States	Motivation Level	Time	Affect Changing Events / Context
Thinking / talking about new business ideas	Positive, High Arousal (Excited, Happy)	High	Pre-launch stage Post launch stage for another business	No support (Frustrated) Criticism (Angry)
Thinking / talking about additional features	Positive, Moderate Arousal (Happy)	High	Throughout the startup periods	Criticism (Angry, Sad) Failure (Sad)
Redefining business ideas	Mix of Positive High Arousal & Negative High Arousal (Excited, Happy & Shocked)	High	Pre-launch stage	
New product / service launch	Positive, High Arousal (Excited)	High	Pre-launch stage Post launch stage for growth / another business	Market saturation (Frustrated) Failure (Miserable / Sad)
Getting recognition / respect	Positive, High Arousal (Excited, Happy)	High	Throughout the startup periods	
Meeting new people	Mix of Positive High Arousal & Negative High Arousal (Excited & Afraid)	High	Throughout the startup periods; stronger effects on motivation during pre-launch stage	
Planning for short-term	Positive, Moderate-Low Arousal (Happy, Content)	High-Moderate	Throughout the startup periods	Feeling too much to do (Frustrated)
Planning for long-term	Positive, High-Moderate Arousal (Excited, Happy)	High-Moderate	Pre-launch stage Post launch stage	
Reviewing achievements	Positive, High-Moderate Arousal (Happy, Content)	Moderate-High	Throughout the startup periods (Higher arousal if earlier period & bigger achievement)	
Break / vacation after hectic time	Positive, Low Arousal	Moderate – High	Launching – Post Launch stages	New business ideas (Excited) Planning (Excited)

Events / Behavior / Context	Affective States	Motivation Level	Time	Affect Changing Events / Context
Getting criticism	Negative, High Arousal (Angry, Frustrated)	Moderate – Low	Throughout the startup periods	Analyzing the event (Content)
New product / service launch failure	Negative, High – Moderate Arousal (Angry, Frustrated, Sad)	Low – Moderate	Launching – Post Launch stages	Support (Happy) Analyzing the failure, time passage, 'Learning Experience' (Content & Happy)
Working on managing / routine tasks	Negative, Moderate-Low Arousal (Frustrated, Bored, Tired)	Low – Moderate	Launching – Post Launch stages	Reconnecting with the past, Focusing on learning aspects (Happy)
Financial insecurity / out of money	Negative, Moderate Arousal (Frustrated)	Low – Moderate	Post Launch stage	Reconfirming the reason to start business (Relaxed, Content)
Not knowing outcomes	Negative, High Arousal (Afraid)	Low	Pre-launch stage	Support, respect, recognition (Happy / Delighted)
Doing well for a while without much events	Positive, Low Arousal (Relaxed)	Low	Launching – Post Launch stages	Thinking about new business ideas (Excited), Reconnecting with the past (Happy)

I also analyzed the arousal level of emotions in text of diary entries for each stage to describe the general trend during the startup process, based on the results of DAL. The following figure shows the emotion words in the text of an entrepreneur's blog. The percentage of emotion words about pleasant, unpleasant, and sad in each day's entry is shown. The trend corresponds to the manual coding results, especially with the pleasant words. The X axis is the entry date of diary blogs, and the Y axis is the percentage of the emotion words in the each entry text.

Figure 2: DAL Emotion Language Trend
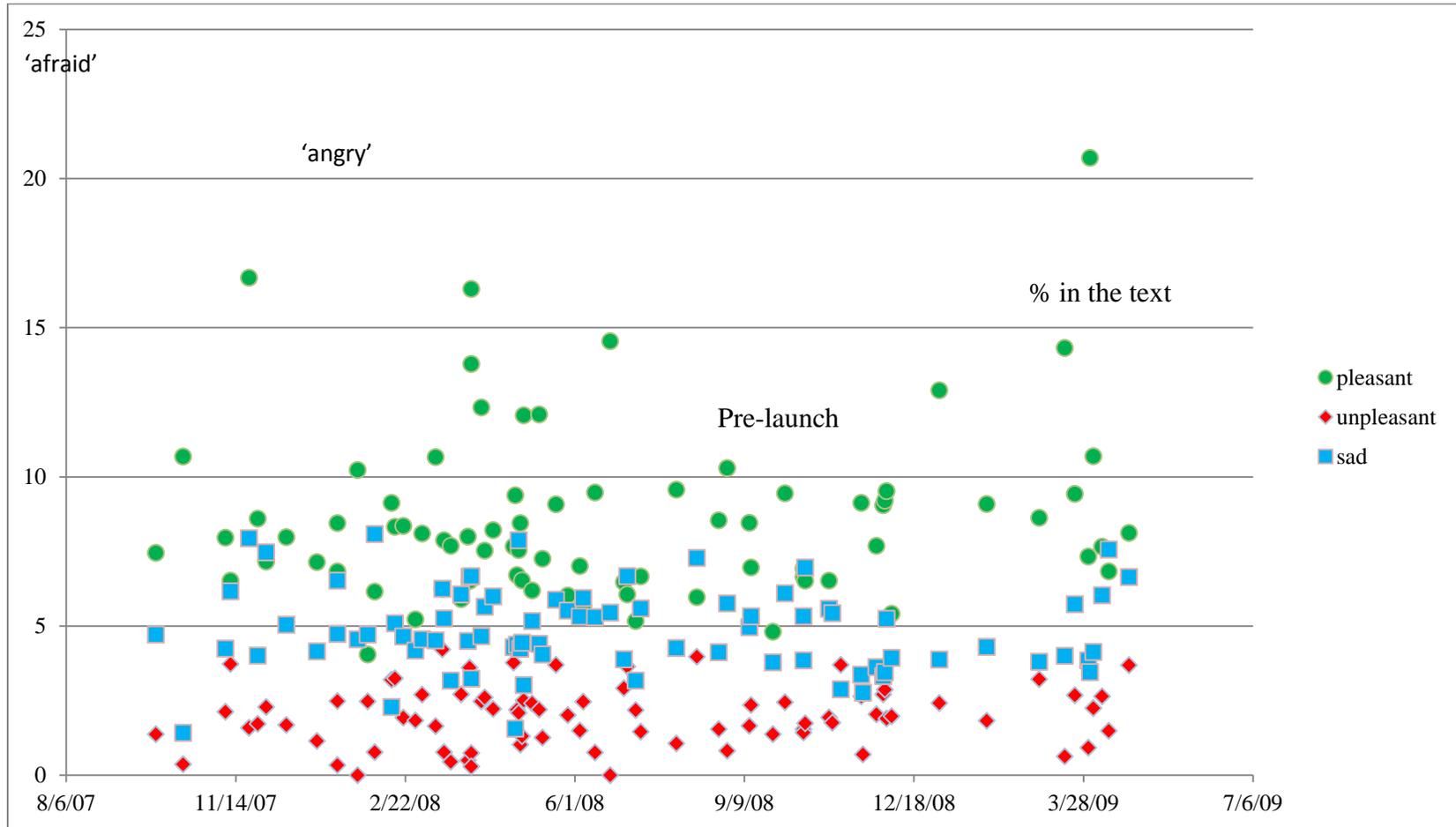
In order to see how reliable my manual coding results with NVivo were, I also contrasted the manual coding results with the DAL analysis results. Specifically, I chose random 100 blog entries and compared the ratio of DAL's pleasant/unpleasant analysis with NVivo's positive/negative emotion codes. The results show my manual coding results were in line with DAL results.

Table 3 NVivo and DAL Comparison

	Positive / Pleasant (%)	Negative / Unpleasant (%)
NVivo	10.08	3.73
DAL	7.52	1.45

The discrepancy between the two software results is due to the different unit of analysis. DAL uses the number of words as the unit while NVivo results are calculated the length of coded text within each diary entry. As a result, DAL results show lower ratio of emotion language compared to NVivo results. However, this comparison shows that manual coding results have appropriately captured emotion expressed in texts.

3.4.2 Entrepreneurs' Behavioral Strategy

Based on the general findings described in the previous section, I summarize what I found in the startup processes of persevering entrepreneurs—what entrepreneurs do in order to keep their motivation high and put efforts for their startups. Since entrepreneurs seem to manipulate their affective states through their behavior in order to persevere, I call it as entrepreneurs' behavioral strategy and look at the strategy more in detail.

3.4.2.1 Affirmation from Society

When entrepreneurs set out to pursue their business ideas, every experience is new, and s/he does not know if a new product launch, negotiation, or the business itself would be successful. Entrepreneurs of course hope to achieve business success, yet the paths to long term business goals are hard to predict. Facing high-level of uncertainty while holding a high hope of success, at this stage, entrepreneurs experience highly aroused states in both positive and negative affect.

Existing theories of affect suggest that positive affect and negative affect influence cognition or behavior in counter-effective ways. For example, Baron (2008) suggests the moderating effects of affect on opportunity recognition, as positive affect enhancing and negative affect reducing the effects. These theories have explained the results of a certain affective state in a previous time-period; if an entrepreneur is feeling positive affect, (s)he would respond to available opportunities better. From the cases I analyzed, entrepreneurs experience both positive and negative affect simultaneously. If entrepreneurs are feeling both positive and negative affect simultaneously at the pre-launch stage, the counter-effective direction of positive

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and negative affect should negate the influence of either affect. Foo et al. (2009) show that highly aroused states, either positive or negative, would increase the efforts in the subsequent time period, perplexing results from previously contended motivation theories.

The results from this study reveal what actually happens during the startup process. Feeling a high-level of uncertainty and anxiety, entrepreneurs proactively ask for affirmation whether their course of action is right. In other words, entrepreneurs intentionally control negative affect by using the positive recognition from society. The persistent entrepreneurs are given such affirmation from society—more precisely, they *find* affirmation from the people they trust or they know—and are able to control the feelings of uncertainty and fear. Entrepreneurs continue to work on, fueling their excitement with initial tangible results and controlling uncertainty with feedback and affirmation from reliable sources to convince them that they are right.

For example, Nancy constantly asks questions about their approaches or projects, and got affirmative comments on her blog. Nancy also mentions positive feedback from friends, colleagues, and acquaintances, drawing more affirmative comments. Such positive feedback makes the entrepreneur to say 'I am doing the right thing'. Ben writes *"There is SO MUCH uncertainty that it could drive an insecure, unmotivated person insane."* He mentions the support from and rapport with his co-founders, and feels happiness and excitement again as an entrepreneur. Both Bruce and Joe reveal their periodical achievements as well as plans for the next phase, asking questions and advice as to if they are heading in the right direction. Even serial entrepreneurs such as Greg and Tina ask for advice on their blog diaries, and their diary

text also indicates that they often talk with their trusted friends or colleagues as to whether their approach is right.

This pattern shows that entrepreneurs who successfully control the fear of startups strategically strike a balance of their affective state. Uncertainty about their new business ideas is unavoidable. It is natural that their fear would hinder their motivation level. Persevering entrepreneurs seem to decrease the perceived uncertainty level by obtaining information from their reliable sources as well as to control the effects of negative affect by using affirmations and positive feedback on their decisions. With high uncertainty in environment and many tasks at hand, entrepreneurs manipulate their affective state to stay in the positive side, so that they are motivated and highly engaged in entrepreneurial activities.

3.4.2.2 Overcoming Self-doubt and Negativity

Business startup seems to be full of setbacks. Especially after the official launch of their product or service, enthusiastic support which entrepreneurs use to enjoy during the pre-launch stage becomes rare. In the meantime, after the official launch, their business results become reality and most of them experience mediocre to low performance. Their financial situation gets worse. Even with successful financial situation, because of the financial security, entrepreneurs feel the lack of drive or motivation. Entrepreneurs often experience negative affect states during the startup, such as frustration, boredom, and misery.

The extant theories of affect indicate that entrepreneurs in negative affect would find fewer opportunities and become less creative (Amabile et al., 2005; Baron, 2008). Or they would try to work on correcting what is not going right (Foo et al., 2009). The negative affect

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should also limit the side effects of positive affect; entrepreneurs should be able to critically review what is wrong and exercise better judgment (Baron, 2008).

The results of this study add another dimension to these theories. While feeling frustrated or bored, entrepreneurs actually try to get out of such a negative affect state. Entrepreneurs try to replicate behavior which used to make them excited, thus think about new business ideas. They also use their personal lives and events to feel something positive, or even use personal experiences to get affirmation from society. As a result, negative affect states actually prompt entrepreneurs to engage in positive affect generating activities such as seeking affirmation or thinking about new business ideas.

For example, Nancy had a homerun success with the fundraising effort using Twitter. It made her and her organization famous. With much excitement, she analyzed the success carefully, and devised a similar initiative about a half-year later. She failed miserably. Around the same time, she spoke as a guest speaker about her success in fundraising. Although she was initially excited about being a guest speaker, later she found out that her approach was criticized by philanthropists or people who work for fundraising and were present at her speech. It took her for about a month to recover from the negative affect state—anger and disappointment from the failed initiative and from getting openly criticized. Nancy tried to re-connect with her original experience, take a rest, and not to think about the negative experience. After a month, she mentioned that the world had not denied her, and got stronger affirmation from society. She set out to win a competition for start-up funds, which she had previously failed to win, and she finally won. She goes through this type of up and down throughout the process, yet every time

she comes out from the 'down' state, she finds an affirmation from society or some type of positive experience from the startup.

Another example of coming out of negative affect states comes from Suzanne. In her second year of re-launch, Suzanne's work was becoming a routine, without new dimensions in her business. Suzanne made a video revealing that she was going through divorce; as a result, she drew the most comments on her blog to the date, praising her courage to reveal such a negative event. Before the entry, her blog attracted on average a few comments per entry. This video entry drew strong words of encouragement, praising her strength and independence. Afterward, Susanne soon launched a new project.

Another important role of negative affect states during the business startup process is the opportunity to review the startup motivation. Prolonged exposure to negative affect states seems to trigger entrepreneurs to find an answer for perseverance. Entrepreneurs often mention how much sacrifice they have made for their business startup. Persevering entrepreneurs seem to find an answer for why they keep making efforts for their businesses regardless of their sacrifice. In order to find an answer to their doubt, entrepreneurs need a significant event which in some ways characterizes their answers. Entrepreneurs engage in activities that make them feel positive affect—launching new projects, seeking praise from society, obtaining good reputation, or winning a competition—and as a result, entrepreneurs confirm why they are involved in business startups.

For example, Ben uses his blogs to get affirmation. Facing no income stream and his core team member's departure, he went through several job interviews. He wrote about his

experience on his blog with a title 'suicide'—career suicide for getting a corporate job—and stated that he was a born entrepreneur and he could never get satisfied with a corporate job. Ben's this diary entry also attracted many comments that encourage him to pursue his dream as an entrepreneur. Bruce, with his financial security, loses his motivation to work harder on his company. He writes that he is not making as much money as other entrepreneurs, and not proud of himself. One day, he reviews his life as an entrepreneur—meeting great people from all over the world, learning new skills, managing contracts and people, and living the life he wanted— and set out to work on new projects.

The observation also indicates that many entrepreneurs might quit after experiencing negative affect for a prolonged period of time. Although entrepreneurs use strategies to feel positive affect, many projects or business ideas fail in reality, thus negative affect can be dominant, especially after their official launch. Negative affect states make entrepreneurs to question why they are involved in business startup. At this point, profitability and financial aspects of their businesses do not serve as a goal that drives entrepreneurs. A breakthrough or an event that result in high arousal, positive affect state is necessary for entrepreneurs to come out of this self-doubt state. All the entrepreneurs who came out of self-doubt used coping behavioral strategy—to do something new, or soliciting stronger support from society—to counter the negative affect and to gain positive affect.

It is also noteworthy that entrepreneurs' behavior seems to change its nature after they launch their product. Pre-launch period is full with short-term business goals such as setting up a bank account, renting office equipment, and setting up their websites. After the launch, business related goals seem to weaken their influences on entrepreneurs' behavior. Instead, seeking

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excitement, self-fulfillment, and society's recognition often seem to be the purpose of their behavior. This is probably related to the fact that entrepreneurs often question their motivation to get involved in business startup. With clear business results in hand (e.g., profit, sales), entrepreneurs need to decide whether they keep working on the business startup or not. In order for them to persevere in the process, entrepreneurs need to find an answer instead of simple financial indicator or business performance. Entrepreneurs need to know what drives them to keep working on their current startup—self-fulfillment, freedom/autonomy, or their own passion. One entrepreneur I interviewed said;

> *"It is not about quitting startups, but I often think about when I start another startup, or when I quit this current startup."*

This type of 'serial' or 'habitual' entrepreneurs (Westhead & Wright, 1998) might be partially explained by the desire for feeling positive affect from what they do, yet it would require a different lens for analyzing the motivation to engage in more than one startups, thus it is beyond the scope of this thesis. Yet, from this observation, entrepreneurs seem to be driven not by business performance but other values they believe in.

3.4.2.3 Learning from experience.

Another interesting observation of the cases relates to their failure. In literature, entrepreneurial failure is often said to be a great opportunity for them to review what they did wrong (Baron, 2008). From the cases, however, entrepreneurs rarely review what they did wrong in the past. Rather, they reflect upon the experiences when they first started out, and try to reconnect with the feelings of the earlier stages. Even though they have many 'failure' and

'mistakes' during the startup process, they forgive their past mistakes. They regard past mistakes as a symbol of their growth as an entrepreneur, and intentionally use such episodes to draw affirmation from society. This aspect of failure as learning can be the result of affect manipulation attempt by entrepreneurs—they only write about their negative experience when they have a positive twist to it.

I should also note the difference between serial entrepreneurs and relatively new entrepreneurs. Three entrepreneurs in this study call themselves as experienced or serial entrepreneurs (Greg, Tina, Bruce). Although these entrepreneurs show personal reflections and notes on blogs, their expression of emotions around product/service launch is calmer or smaller in scale compared to other six entrepreneurs.

This is not to say that serial entrepreneurs do not experience emotional up and downs during the business startup; they also get excited about new ideas as well as worried about the results of their service/product launch. Yet, all three experienced entrepreneurs seem to recover from negative affect state quicker than other six entrepreneurs, and they do not seem to experience 'doubt' as often as others do. It could be because they do not write about their doubt, or they are more realistic about their service/product launch. Even with the product/service failure, the experienced entrepreneurs seem to move on with their life without much difficulty.

For example, Tina writes about her failed fundraising efforts.

"We have declared victory, with just $1,000 in the bank from this campaign. No, that is nowhere close to our financial needs. But as we have said all along, our goal was not just the funds, but what we learned along the way. Most of what we have learned might be called "failure" or "mistakes"…. Theory becomes reality, sometimes it [reality] *is simply*

not pretty. This is our 3rd start-up, and while we've learned a lot, there are still some lessons that repeat themselves each time…."

This entry is surprising since other first-time entrepreneur also raised a lot more than $1,000; the amount of money they raised is far from the results that experienced entrepreneurs could raise. Other entrepreneurs in the analyzed cases have raised more than $20,000 during their fundraising efforts. With such a dismal result, other entrepreneurs would change the tactics and continue the fundraising efforts. Tina decided otherwise, and shut down the effort within 14 days. She concludes:

"Thank you to all of you who are learning with us, and to all who have donated to our short-lived…campaign…. We cannot wait to get moving on building amazing programs that will help you make your community the most healthy, vibrant amazing place to live."

I do not deny the possibility that experienced entrepreneurs do not reveal negative emotions on their blogs. Yet, since they do not hide their failure or mistake on blogs, the lack of strong resentment or negative emotions was the only common factor among these three experienced entrepreneurs.

3.4.3 Entrepreneurial Motivation and Perseverance

3.4.3.1 Goal Setting

One striking pattern emerges from this analysis: the gap between goals. Entrepreneurs' long-term business goals and their short-term goals do not usually match from my perspective as an outsider. The degree of mismatch increases as the process unfolds. Since business startup processes are complex and non-linear, entrepreneurs need a tool to keep them stay engaged in the

business startup processes by using their behavior to feel good about what they do and who they are. Thinking about business goals itself does not help them to stay motivated; rather, thinking about what their business has achieved often seems to lower motivation by contrasting how little they have done against their goals, or by realizing how much uncertainty they see in the future.

This supports the contention of forward-looking view of entrepreneurship (Dimov, 2007), and points to the overlooked aspect of entrepreneurial process under formal conception of entrepreneurial behaviors (Dimov, 2011). If I interviewed these entrepreneurs, they probably do not report their 'irrelevant' activities in their startup processes. They would tell me the stories about their failed attempts and successes, how much effort they made, or how much they enjoy the business startups, yet they would not tell me that certain events made them feel good in the startup process. They believe in themselves and their business ideas, but when it is hard to assess the achievement level against such pre-determined goals, entrepreneurs use their behavior/action to feel good.

With such new observations, I showed that long term goals such as business success are not the major driver of entrepreneurial process. It has been shared among entrepreneurship scholars that the startup process is not a linear path toward business goals. If it is not a linear path, it is impossible to correctly assess how close they are in achieving business goals. Thus, business success itself cannot keep motivating entrepreneurs to put efforts in the business startup. In this study, I described a different picture of entrepreneurs; entrepreneurs are more flexible, creative, and proactive in creating their own paths and goals by manipulating their emotions and by feeling good about themselves. This pattern resonates with the view of effectuation (Sarasvathy, 2001, 2008).

For example, the sampled entrepreneurs have long-term business goals from the beginning, such as raising $250,000 in two years or obtaining Visa black card by certain age. Yet their focus wanders off from the most efficient path for achieving the long-term goal. Suzanne sometimes mentions that she would become a millionaire as a motivation speaker. Ben mentions that his life goal is to become a millionaire by 27, be invited by Ivy League business schools by 30, and have three successful startups by 30. Nancy wants to be a micro-lending organization which funds projects from all over the world. They still mention such long-term goals some times, but in the process, their actions have become more geared toward recognition, affirmation, and excitement. Their short-term projects are not crafted in order to achieve their long-term goals, but more to feel positive affect.

What I add to effectuation theory is the role of alternative drivers of entrepreneurship; their short-term goals or projects can change as long as entrepreneurship brings in positive affect and contentment, thus make them persevere in the startup process. I agree that entrepreneurs do think about their business success and profits, yet financial indicators do not primarily drive them. Persevering entrepreneurs enjoy the process of business startups, creating something new, or verifying their ideas. Thus, what effectuation posits as opportunity creation is sometimes a result of entrepreneurs' behavioral strategy to induce positive affect. It is not only because entrepreneurs are flexible in adopting new business goals, but it is because entrepreneurs need to feel good about what they are doing. As a result, entrepreneurs engage in various entrepreneurial activities which cannot be explained as causal thinking.

Various setbacks in the startup processes have started to gain attention of entrepreneurship scholars such as failure and grief (Patzelt & Shepherd, 2011). Yet from goal

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setting perspective (Locke and Latham, 2002), how to overcome setbacks in the startup processes have not been clearly answered. This study offers one way to explain how entrepreneurs overcome setbacks in the startup processes; when entrepreneurs feel negative affect and doubt—due to the lack of sales or profit, or product failure, entrepreneurs engage in entrepreneurial behavior to induce positive affect. By feeling good about their businesses or themselves, entrepreneurs persevere. Entrepreneurs find an answer to 'why am I doing this?' and engage in symbolic actions that characterizes their answer to 'why am I doing this?'

In sum, if we look back entrepreneurs' behaviors after we have the complete knowledge of their business outcomes, their decisions throughout the process do not make sense in regard to their long-term business goals. The results show why entrepreneurs have acted irrationally in our eyes; such irrational behaviors to us now were rational for entrepreneurs then to persevere in the startup processes.

3.4.3.2 Affect and Motivation for Perseverance

What motivates entrepreneurs persevere in their startup processes despite high uncertainty and various setbacks? The results show that entrepreneurs use entrepreneurial behavior to induce positive affect. For example, entrepreneurs solicit support from society to reinforce their activities. In pre-launch stage, entrepreneurs ask for advice to control the feeling of anxiety from uncertainty. Their close friends', experts', or business partners' ideas often get listened, and entrepreneurs fuel their excitement with their supporters' encouraging words.

Entrepreneurs also learn how to induce positive affect or intentionally avoid negative affect. One example is the selectivity around their advice-taking behavior. Entrepreneurs often

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try to analyze the reasons for success or failure of their past attempts. Their analysis of success or failure is not necessarily correct. Yet they constantly try to replicate past success based on their analysis. If such attempts at replicating the past success work, entrepreneurs build in the behavior in their routine. If an attempt at replicating a past success fails, however, entrepreneurs try to ignore the failure while not changing anything of the past success. Entrepreneurs do not invite comments on failure. This is an interesting contrast since the analysis of success often invites comments and entrepreneurs are willing to listen. This selectivity shown by entrepreneurs illustrates the picture of proactive and strategic actions; the behavior is rationale for them to negate the effects of negative affect and to induce/prolong positive affect.

This study has also revealed that the answer to the question, 'how do entrepreneurs keep making efforts?' depends on what stage the entrepreneur is in. The affect-behavior patterns mark three distinctive stages of business startup: pre-launch, launching, and post-launch of the first product.

Pre-launch stage is marked by high arousal affective states, both positive and negative. At this stage, as their intention to pursue their business ideas becomes stronger, they seek initial steps to be taken to implement the ideas. Although general steps for establishing an organization are available, specific paths to successful execution of their business idea are unknown. Since entrepreneurs engage in new activities, excitement dominates the most of the time, but anxiety is felt concurrently. In order to find a path to the best way to execute their business ideas, entrepreneurs seek affirmation from reliable sources and constantly confirm that they are on the right track. During the pre-launch stage, goal orientation is clearly observable; entrepreneurs want to successfully execute their business ideas. Their short-term goals are more of a to-do list

to launch their first product. General steps to launching their product occupy entrepreneurs' time and effort. As a result, this stage becomes full of excitement, and entrepreneurs often try to re-connect with experience of this stage later in their startups.

In order to persevere in pre-launch stage, entrepreneurs need to negate the effects of negative emotions felt due to high uncertainty around their business ideas or setbacks. At this stage, entrepreneurs ask for affirmation from experts, other entrepreneurs, and potential customers as to whether their business approach is appropriate. Entrepreneurs also fuel their excitement with the affirmation from family and friends. At pre-launch stage, since their product/service is not in place yet, it is easy for entrepreneurs to ignore negative feedback or setback about their business ideas. Entrepreneurs at this stage select to whom they listen, and stay in positive affect state.

During the launching stage, after achieving initial success, entrepreneurs enter in lower arousal, negative affect states. With their initial market saturation, favorable feedback from their initial customers stops and enthusiastic support from their reliable sources seems to cease. With their product/service actually in place, they see the reality—how good their product/service is in the eyes of customers. At the same time, most tasks around their business become routines and mundane, which takes time and effort but brings in little joy or excitement. As a result, boredom and frustration dominate in this stage. Thus, entrepreneurs ask themselves why they are doing what they are doing.

In order to persevere beyond the launching stage, entrepreneurs need to feel positive affect by reconnecting with their initial experience or by starting something new. Although

friends or family members sometimes give affirmation, such affirmation is not enough to clear the doubt about their business. Entrepreneurs need to find an answer to why they are doing what they are doing, and most of time, need a success in their business setting that affirm their answer is right.

Once successfully moving out from the launching stage, entrepreneurs enter post-launch stage when positive and negative affect states change frequently. Entrepreneurs' behavior deviate from the path aligned to achieve the long-term business goal, and positive affect inducing behavior become prevalent. At this stage, entrepreneurs experience project failures or criticisms thus experience negative affect. Reputation-seeking and novelty-seeking behaviors are observed frequently at this stage.

Reaching this stage, entrepreneurs can strategically manipulate their affective states in order to stay in the positive affect state. At the same time, the environment around their business ideas becomes more predictable than previous stages. After achieving initial business success, entrepreneurs start considering growing their businesses or adding different product lines. It seems existing work motivation theories start to apply more appropriately at this stage, rather than the theory of perseverance.

I also note that throughout the stages, positive affect induces entrepreneurs to start new products or new initiatives, as suggested in the literature (Amabile et al., 2005; Baron, 2008). Thus, if their behavioral strategy always works, then entrepreneurs should able to stay in positive affect states all the time—doing something new induces positive affect states, and then feeling positive affect induces more new projects. That is not usually the case. What interferes in this

cyclical relationship of affect-behavior is 1) negative feedback from society, both active (criticism) or passive (ignorance), and 2) anxiety from high uncertainty due to engaging in something new. Throughout stages, entrepreneurs constantly experience both positive and negative affect simultaneously. The purpose of affect regulation is to overcome the influence of negative affect and feel positive affect more strongly. In order benefit from positive affect, entrepreneurs control the influence of negative affect through behavior—by soliciting positive feedback, launching a new project or another firm, and re-connecting with pre-launch stage experience which was full of excitement.

3.4.3.3 Summary

Entrepreneurship is a setting in which entrepreneurs can try new things to feel positive affect. What we observe as entrepreneurial behavior is sometimes the results of such strategic manipulations of their affective states. Tangible outcomes often work as a tool of verification of themselves—stronger sales mean that customers see value in what they are doing.

The data showed me how a substantive conception changes the view of entrepreneurs' startup processes. By rebuilding the startup processes, the blog data described the constant attempts by entrepreneurs to feel positive affect and find contentment. In other words, when business goals are far to reach and other personal goals and achievements are hard to assess, entrepreneurs need to manipulate negative affect in order to persevere in the startup processes. What we regard as entrepreneurial behavior serves well in inducing positive affect. Entrepreneurs also learn from their startup processes what kinds of activities make them feel good. Especially when in doubt, a prolonged low-arousal, negative affect state, they need to find

an answer to the question 'why am I doing this?' The answer should be strongly supported with

a business success or affirmation from society if they were to persevere in the entrepreneurship

process.

The relationships between goals, affect, and behavioral strategies are summarized in

Table 4.

Table 4: Stages, Goals, Affect, Behavioral Strategies

Pre-launch	Launching	Post-launch
Goal - Goals deadline for establishing their business - General steps for startup available -No specific information is available for how to successfully execute the business idea	**Goal** - Initial grand plan still in place - In doubt state, examine the reason why they are doing what they are doing→examining their goals for life in general	**Goal** - Short-term, tangible goals are set - Growth strategy is in place
Affective state - Excited to engage in something new - Scared of Uncertainty, worried = Need affirmation to strike the balance between 'scared' and 'excited' - People's affirmation fuels excitement	**Affective state** - Excitement and confidence to see achievements at the beginning - Frustration, confusion, and exhaustion after initial market saturation - Routine work feels mundane=boredom **Breakthrough needed to move beyond**	**Affective state** - Excitement and disappointment frequently change
Behavioral strategy - Seeking affirmation - Listening to people selectively (ignoring negative feedback) - Don't know what to do = information collection effort (ask people, attend events) - Experiment = just do what I can do	**Behavioral strategy** - Launching similar projects in the past that caused excitement - Examine why they are entrepreneurs -Engage in behavior that symbolizes 'why I am doing this' -Receive strong affirmation about their answer	**Behavioral strategy** - Try to replicate what has been successful=new product launch or new projects are preferred; try to solicit positive affirmation from society

3.5 Theoretical Framework of Entrepreneurs' Motivation for Perseverance

Through the entrepreneurial process, entrepreneurs manipulate their affective states by engaging in certain behavior. With high uncertainty around the new business, entrepreneurs use their behavior to induce positive affect in day-to-day operations, thus feel good about what they do or themselves. Since achieving business goals (profits, sales, securing investments/clients) takes time and hard to correctly assess their progress toward such goals, entrepreneurs need to use behavioral strategies to persevere in their startups. The motivation levels, associated major business startup event, and affective states are illustrated in Figure 3.

Figure 3: Motivation Levels during Startups
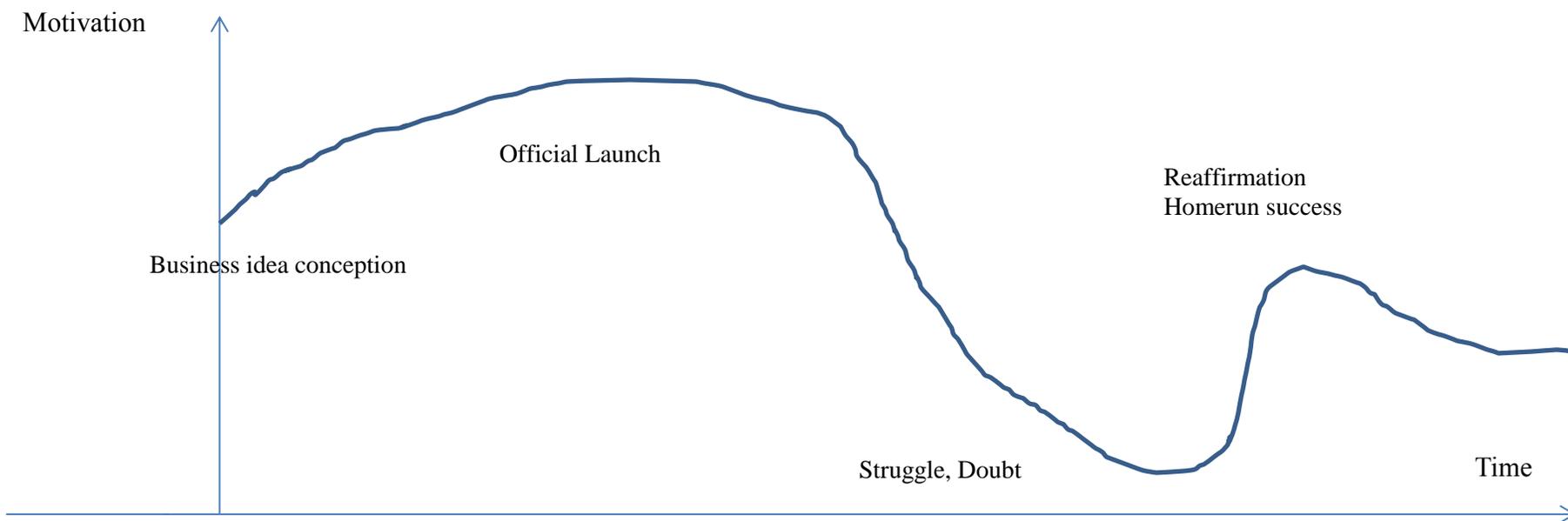
Frequent Affect				
	Positive	Excitement (High Arousal) Happy / Glad (High – moderate)	Content (Moderate Arousal) Calm, relaxed (Low Arousal)	Content (Moderate Arousal) Excitement (High Arousal) Happy / Glad (High – moderate)
	Negative	Anxious (High Arousal) Frustrated (High-Moderate Arousal)	Angry (High Arousal) Frustrated (High-Moderate Arousal) Bored, Tired (Low Arousal)	Tired (Low Arousal) Frustrated (High-Moderate Arousal)

The pattern offers coincides with human motivation theories suggested in well-being studies. Well-being literature has two different definitions of well-being: hedonic and eudaimonic (Kahneman et al., 1999; Ryan & Deci, 2001). Hedonic view measures well-being with happiness—if a person stays longer in a positive affect state, the person has a higher level of well-being (Kahneman et al., 1999). Eudaimonic view takes the position that people are driven to achieve basic psychological needs (autonomy, relatedness, competence), and to find a meaning to fulfill their lives (Ryan & Deci, 2001). In eudaimonic view, even if a person is feeling happy as a result of winning a lottery, the person is not fully functioning in a way to maximize eudaimonic well-being. The two views of well-being overlap, yet they are distinct concepts of well-being (Ryff & Singer, 2008). In this section, I link the findings of this study to the well-being studies and show how general human behavior/motivation theories operate in the business startup processes.

3.5.1 Hedonic Well-being and Perseverance

Hedonic well-being studies suggest that people behave or make choices in ways to feel good as a result of behavior. People's behavior is thus intended to maximize positive emotions (pleasure) while minimizing negative emotions (pain) (Kahneman et al., 1999). Hedonic well-being studies further suggest that people manipulate their emotions through their behavior (emotion regulation) (Frijda, 1999) while people anticipate certain emotions based on the assessment of their past similar experiences (Kahneman & Thaler, 2006). Hedonic well-being scholars suggest that people enhance or reduce the emotions for anticipated outcomes; for example, people express sadness to create social bonds (Frijda, 1999).

Hedonic well-being theories support entrepreneurs' behavior in the startup processes. Especially, it seems that their experience in the early stage or pre-launch stage might be the most

influential in determining the perseverance of entrepreneurs. During the pre-launch of their first products, entrepreneurs experience high level of excitement due to engaging in interested tasks while high level of worry due to uncertainty around their business ideas. Entrepreneurs express worry or concerns only to selectively listen to supportive voice from society. Excitement in this stage is also perceived as positive experience for entrepreneurs, which often make them work harder with less sleep.

With hedonic well-being lens, entrepreneurs who do not experience enough pleasure relative to pain in the early stage might not be able to persevere in the startup process. Since entrepreneurs remember excitement and pleasure from their early stage of startup processes, they will replicate such events in the later stage of startup processes. Stated differently, when entrepreneurs are experiencing positive, high arousal affective states, the pleasure level prompts the entrepreneurs to engage in behaviors to reproduce the pleasure, positive affective state. Most entrepreneurs try to replicate the event that caused such pleasure affective state through their behavior, or even make the influence of the event larger than the original experience. If such attempts at replicating pleasure or positive experiences are successful, entrepreneurs will stay in the positive, high arousal affective state longer.

The data show that entrepreneurs experience high level of pleasure or positive emotions as a result of entrepreneurial behavior such as product development, networking, or simply experiencing something new to them. Persevering entrepreneurs seem to enjoy brainstorming, value creation, being called innovative or brave or visionary, being recognized by society, or meeting new people. Since such entrepreneurial tasks cause them more pleasure than pain, entrepreneurs keep replicating such experience repeatedly, resulting in perseverance in the

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startup process. In other words, persevering entrepreneurs find joy and pleasure in engaging in startup tasks.

In hedonic well-being studies, scholars have also discussed the concept of 'hedonic treadmill' (Diener, Lucas, & Scollon, 2009a). Hedonic treadmill suggests that people's emotions as a result of good or bad events move back to a certain average point eventually. For example, people's daily moods and emotions are on average, positive, not a neutral as in between positive and negative. Findings from this study confirm that people indeed cannot stay in the high-arousal, positive affect state forever—entrepreneurs feel exhausted eventually, or some of their positive-affect replication strategies fail. Most of the time, entrepreneurs experience lower arousal level of affect state after a period of high arousal, positive affect state, as a result of exhaustion or failure.

Low-arousal, positive affect states do not influence entrepreneurs' perseverance in significant ways. Such emotional states even seem necessary for entrepreneurs to replenish or take a break. Persevering entrepreneurs show, however, that after a certain period of low-arousal positive affect state, they expect to experience high-arousal, positive affect states as they experienced in the past. In other words, entrepreneurs learn from their startup experiences that certain tasks make them feel good, and when they are ready, they engage in similar tasks to feel pleasure.

Entrepreneurs will persevere in the business startup processes as long as their assessment of past experience around business startup remains positive relative to negative. Specifically, entrepreneurs will stop pursuing their business startups if their assessment of the future processes

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causes avoidance behavior tendency (Frijda, 1999) rather than excitement or positive expectations due to past experience or certain threats.

For example, if an entrepreneur goes to a negative affect state due to failure, the entrepreneur goes into a high-arousal, negative affect state (angry, frustrated), followed by a low-arousal, negative affect state (disappointed, sad). When they are in high-arousal, negative affect state, they respond against the event—attack the cause of the negative emotions. In this state, entrepreneurs still persevere since their behavior is for protecting their feelings. When a low-arousal state follows, however, entrepreneurs might assess the past event as more painful rather than pleasure, thus altogether, might want to avoid repeating such emotional experience in the future. Such avoidance behavior could cause entrepreneurs to pursue their business startups.

Persevering entrepreneurs in the cases did not show the process of analyzing the causes of failure in details, or even when some initiatives failed, they tend to label such results as not failure. By ignoring failure or not regarding events as failure, persevering entrepreneurs do not attach the negative emotions to the event that might result in avoidance.

Another affective state that is explained by hedonic well-being is a state of boredom. Even when entrepreneurs do not experience major setbacks or failure, due to exhaustion or burnout, entrepreneurs go into a low-arousal, negative affect state. Persevering entrepreneurs use behavior to induce positive affect. Some entrepreneurs took a break from their businesses and had vacation. Entrepreneurs are replenished, and ready to engage in business startup again. Some entrepreneurs try to re-connect with their early stage experience, and feel positive emotions as a result. They also try to solicit support from society about what they are doing and who they are. As a result, they go back to positive affect states.

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The patterns moving across different arousal levels and positive/negative affect show that entrepreneurs do not always know why they are doing what they are doing. Especially when they are in positive affect states, entrepreneurs tend to replicate what has caused the positive affect state, without examining whether it contributes to their business startups. In a high-arousal, negative affect state such as frustrated or angry, it looks that entrepreneurs simply defend what they are doing and do not change their views or plans.

The key state is when entrepreneurs are in a negative low-arousal affect state, or when they are in doubt. Entrepreneurs ask the question—why am I doing this?—in a path changing way. The process of asking the question and finding the answer takes a while when entrepreneurs are in negative affect states. This state needs the other view of well-being, eudaimonic well-being.

3.5.2 Eudaimonic Well-being and Perseverance

Eudaimonic well-being is defined as "the extent to which a person is fully functioning' (150: Ryan & Deci, 2001). This view strongly suggests that desire for self-realization drives people's behavior (Ryan & Deci, 2001). The Self-determination theory (SDT) posits that fulfilling basic psychological needs—autonomy, competence, and relatedness—leads to well-being, and that human beings are driven to fulfill these needs (Ryan & Deci, 2001).

Eudaimonic well-being is different from hedonic well-being (happiness or subjective well-being) that focuses on positive mood. People might not feel happy when they cut back leisure time and work for achieving their goals. Yet, they are driven to do so since striving for their goals fulfill their psychological needs – competence, and more 'fully-functioning' as a

person. SDT suggests that fulfilling basic psychological needs result in positive emotions, yet the two views of well-being need to be clearly differentiated.

Eudaimonic well-being well explains entrepreneurs' career choices while not maximizing income—materialistic goals themselves do not fulfill people's basic psychological needs (autonomy, competence, relatedness), thus entrepreneurship or career choice as an entrepreneur offers other benefits that fulfill these psychological needs by striving for goals.

More importantly, eudaimonic well-being becomes most influential when entrepreneurs enter the state of doubt. The doubt state is experienced when entrepreneurs are in a low-arousal, negative affect state (bored, tired, sad) for a long time. Entrepreneurs ask a question, 'why am I doing this?' In order for entrepreneurs to persevere and pursue their business startups, they need to affirm what their business startup is about. It can be challenging themselves (competence), doing what they want to do (autonomy), or leaving a legacy and being remembered (relatedness/competence). Entrepreneurs affirm that their business startup processes are not about making profits but what they enjoy to do as their life.

As eudaimonic well-being studies suggest, persevering entrepreneurs regard their startup processes as a process to grow personally. Although they do not feel happy all the time due to various setbacks and non-eventful days, they do remind themselves what entrepreneurship is about to themselves time to time. Eudaimonic well-being lens suggest that persevering entrepreneurs feel life satisfaction from engaging in business startups. Entrepreneurship becomes important value for them to fulfill what they are born to be.

3.6 Discussion and Conclusion

Entrepreneurs persevere by manipulating their affective states and by challenging themselves. I did not set out to test the two views of well-being (hedonic and eudaimonic), but theoretical frameworks from these two schools illustrates how persevering entrepreneurs try to maximize their well-beings in different settings. Nonetheless, this study is not a simple extension of well-being studies, but offers a richer meaning to why people do what people do.

This study's findings show that the two concepts of well-being, hedonic and eudaimonic, co-exist and influence entrepreneurs' decisions in significant yet different ways. Hedonic aspects of well-being influence entrepreneurs' daily decisions in a way to maximize happiness—entrepreneurs replicate positive affect inducing behaviors such as new product development or exploring new business areas. At the same time, entrepreneurs control the effects of negative affect states by soliciting support from society. Even strong negative affect contributes to perseverance—they protect their value by attacking the cause of negative affect. The critical affective state is rather low-arousal, negative affect states, which might cause entrepreneurs to avoid repeating such experience. If entrepreneurs' assessment of past experience cause them to avoid repeating past events, they potentially stop pursuing their business startups. As a result, persevering entrepreneurs make decisions and behave in a way to stay in a positive affect state in general, which matches the hedonic view of well-being. This type of behavioral strategy toward perseverance is more applicable in explaining why entrepreneurs engage in entrepreneurial tasks. Entrepreneurs are entrepreneurial because entrepreneurial tasks cause more pleasure.

On the other hand, eudaimonic well-being is most influential when entrepreneurs are in doubt. When they are in low-arousal, negative affect states, entrepreneurs need to find an answer to the question, 'why am I doing this?' Entrepreneurs are in doubt, and in order to persist in the entrepreneurship process, they need to find their own answer to the meaning of what they are

doing, and how it relates to the meaning of their lives. This pattern coincides with what eudaimonic well-being literature suggests; entrepreneurs find entrepreneurship as a self-fulfillment process.

This study makes contribution to several areas. First, I contribute to the research on affect in entrepreneurship. This study suggests the role of affect as an intended outcome. Entrepreneurship research on the relationship between affect and cognition is still in an early stage, and currently, affect research in entrepreneurship focuses on the role of affect as an antecedent of behavior (Cardon et al., 2009; Foo et al., 2009). The logic is that affect influences cognition (Baron, 2008), and cognitive bias such as over-confidence and optimism influence entrepreneurs' decisions. Although this relationship between affect and behavior does exist, since business startup is a long process, the behavior would cause certain affective states which would then influence the subsequent process. Trying to replicate past events to stay in the positive affect greatly influences entrepreneurs' behaviors. Although many of entrepreneurs' behaviors look irrational in achieving business goals or maximizing profits, entrepreneurial decisions and behavior are actually rational in maximizing positive affect, or controlling the influence of negative affect. This study thus shows the complex way that affect and behavior interacts and influences the perseverance of entrepreneurs.

The theorizing effort of affect in entrepreneurship so far also focuses on the influences of positive affect, and not much can be found on negative affect. This might be due to the attention to entrepreneurial aspects such as creativity or problem solving, and to the fact that empirical studies in management or psychology have proven the effects of positive affect to such dimensions of entrepreneurial process. In this study, I showed how negative affect influences the

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perseverance of entrepreneurs, and especially, how critical the negative affect state is for the perseverance.

Secondly, this study contributes to general entrepreneurship literature by offering the alternative drivers of entrepreneurship: entrepreneurs' attempts at finding happiness and contentment. In the past, entrepreneurs' perseverance has not been clearly theorized. Profit motives as well as non-pecuniary motives have been suggested as influential factors in career choice (Amit, Maccrimmon, Zietsma, & Oesch, 2001). Entrepreneurs seem to enjoy autonomy (Benz & Frey, 2008), psychic income (Gimeno et al., 1997), and job satisfaction (Blanchflower & Oswald, 1998). By observing nine entrepreneurs' startup processes for more than two years, I offer a comprehensive theoretical framework that explains how these factors contribute to perseverance of entrepreneurs.

As this study suggests, entrepreneurship is a process in which entrepreneurs constantly experience emotions and make decisions as they see fit the best in time. Although some business decisions are made to maximize profits and sales, most of the time, entrepreneurs do have their own answers to why they are entrepreneurs. Especially when they are in a negative affect state and have a doubt, they need to find an answer to continue in the process. Persevering entrepreneurs find an answer that makes them persevere despite the financial setbacks or criticisms. They find a joy in entrepreneurship; entrepreneurship becomes a setting for them to challenge themselves as well as a process of self-fulfillment.

Third, this study contributes to well-being studies. The two definitions of well-being—hedonic and eudaimonic—have been discussed in a separating, contrasting way. The two schools ask a different nature of questions and the two concepts of well-being are treated as two

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distinct constructs. I offer an explanation how these two well-being concepts can or should co-exist in a real-life setting, and how the two well-being notions influence people's life decisions. Since most of well-being studies have focused on how accurately measure people's well-being, the understanding on the co-existence and co-influence of the two well-being concepts is still limited. I believe that this study show the two well-being concepts are not either-or, but both influence our life in different manners.

Lastly, this study makes methodological contributions to process research. By using a novel data source, I reconstructed entrepreneurship process from the perspective of entrepreneurs. The substantive conception of process (Dimov, 2011) informed me what actually drives the entrepreneurship process, and this study offers a way to conduct a process study with substantive conception of process. The rich description of entrepreneurs' diaries enabled me to capture their reflections, thoughts, and emotions in detail, thus offered me a unique opportunity to examine the overlooked aspects of entrepreneurship processes. The data showed that entrepreneurs make rational decisions in fulfilling the meaning of their life, and maximizing their happiness. I hope that the research methods would inspire more process-oriented research in our field.

Of course, this study has limitations. The blog diaries as a data source are of a great concern of fellow scholars. The first concern is that entrepreneurs do not reveal all the information about their experience. I am aware of this bias, but at the same time, since I did not reveal my research intention to bloggers, the diaries are not biases in relation to my research questions. I also did not directly compare across individuals, but I first identified pattern changes within individuals then contrasted the pattern changes across individual. Thus, I believe the bias in bloggers' expressions places minimum threats to my research question. The second

major concern is to use personal diaries in qualitative study. This study uses publicly available information, yet the individuals might be identified and the study might undermine their efforts. I have been careful in presenting the findings, and try to reveal only enough amount of information to support the arguments.

I also note that the theory only applies to the decisions made at the individual level and do not have links with business performance or implication toward society. I suspect that once their firms grow and when their role becomes more of managers, different decision preferences—profit maximization—would start dominating their decisions at the organizational level. Such decisions would have more direct influence as to whether the company achieves profits/sales or grows fast. When a company grows, decisions have to satisfy various decision-makers who have different value sets. Thus it is likely that money serves as a currency or medium to mediate the different values hold by decision-makers, thus profit maximization logic would dominate decisions made at the firm. This transition from individual entrepreneurs' well-being maximization to firm's profit maximization would be another interesting research question of entrepreneurial decision-making, but is beyond the scope of this paper.

In the similar line, it is possible that strongly-cohesive team startups would have different mechanisms that influence each team member, thus perseverance mechanisms differ. Although the cases include entrepreneurs who have co-founders, their decisions and reflections were made quite independently. If I were able to collect all the team members' diaries, the data would add another dimension to the theory.

Another limitation, if I must say, is the generalizability of the findings—I built a theory of entrepreneurs' perseverance based on nine cases, persevering entrepreneurs in North America.

Yet the purpose of this case study is to inform the theory of perseverance and motivation, and is not the generalizability. Multiple-case study needs to find extreme cases that inform a theory (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Generalizability of a new theoretical framework is an important next step, yet I do not believe that this study needs to address generalizability.

While I acknowledge these limitations, I firmly believe that the analysis have brought in more insights enough to compensate the limitations. Entrepreneurs constantly make decisions as they perceive the best at the point in time. Viewing an entrepreneurial process from the viewpoint of an entrepreneur sheds light on the overlooked aspects of entrepreneurial decisions and behavior. The results illustrate a picture of entrepreneurs as active agents who manipulate affective states throughout the process. With uncertain future and the infinite number of potential paths, their business success itself is not necessarily the driver of the process; affective states greatly determine the paths and process. The results also showed the aspect of affect as a trigger of behavior; certain actions result in excitement, and entrepreneurs repeat such actions. Entrepreneurs are aware of their affective states, and try to stay in positive affect. The past experience of feeling positive affect triggers entrepreneurs to repeat an action to cause another positive affective state; entrepreneurship becomes an excitement-seeking and self-fulfilling behavior, not a goal-driven, profit maximizing behavior.

I showed the role of affect as a behavioral trigger, as well as entrepreneurship as well-being maximizing behavior. Entrepreneurs in this perspective are indeed dynamic agents, creating their own paths. This study is one of the first attempts at incorporating entrepreneurs' various and changing decision preferences to fully explain organization emergence as well as entrepreneurs' perseverance. The model shows that persistence is not a product of certain

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personal characteristics. Rather, this theory contends that entrepreneurs' actions of regulating

affect and of finding life satisfaction ultimately lead to perseverance. The model also shows

which factors are most influential at different stages of entrepreneurial processes, giving a

complete picture of the mechanism of how various and conflicting motives of entrepreneurs

operate and contribute to perseverance. This study thus offers a robust foundation for future

empirical research in testing entrepreneurial persistence in the context of organizational

emergence.

4. Study 2: Entrepreneurs' Behavioral Strategies and Real-time Data—Application of DRM to Business Startup Prosesses

4.1 Introduction

Based on the theory developed in Study 1, this study explores entrepreneurs' behavioral strategies that are used on daily basis. Specifically, I use Day Reconstruction Method (DRM) (Kahneman et al., 2004a) to capture entrepreneurs' affect levels and associated actions to the affect changes (Diener et al., 2009b; Stone et al., 2007b) throughout a day. Using the data, I also demonstrate the data analysis, and tests two hypotheses; 1) whether entrepreneurial tasks are more efficient in inducing a positive affect, and 2) whether entrepreneurs learn to manipulate their affective states from their startup experience.

DRM is a type of survey that enables data collection of frequently changing states with little recollection bias. DRM data show the relationship between actions and associated affect level as well as the affect level changes over time (within a day, within individual). The data were collected from entrepreneurs of three different stages (pre-launch, launching, post-launch) on two non-consecutive days per week.

From this exploratory study, I suggest the high potential of DRM as a data collection method while also suggesting necessary modifications for future research in the context of business startups. For example, although I pre-tested the survey tools with entrepreneurs before I launched the Study 2, the list of activities needs to be further improved to fully and efficiently capture the rich context of entrepreneurs' daily lives. The collected data showed that

entrepreneurs often multi-task, which makes it difficult to differentiate entrepreneurial tasks from managerial ones. The details of future modification are explained in section 4.6.

Study 2 completes this thesis, and shows a greater promise of the diary methods in business startup research. The pilot study has collected data from entrepreneurs for a week period of time, but in the future, researchers can collect data for probably one year or more to gain further insights of business startups. It will produce longitudinal data of entrepreneurs' affect and actions in details, although it would take tremendous time and effort.

This study is one of the very first studies to use DRM in the entrepreneurship contexts, and collect data on people's lives of both work and personal life settings. Thus, this study has a strong potential to contribute to both entrepreneurship and well-being research.

4.2 Methods for Real-time Data Collection

As summarized in Chapter 2, Ecological Momentary Assessment (EMA) or Ecological Momentary Intervention (EMI) has been developed to collect data from participants in their natural or daily settings. EMA/EMI is superior in avoiding participants' biases in data, especially memories regarding minor, frequent events such as affect and daily routines. In this section, I summarize purposes, types, and past use of diary methods in research.

4.2.1 Purposes of EMA/EMI

When people are asked to recall certain events or experiences in the past, people's memory is often influenced by systematic bias that distort past events (Shiffman et al., 2008; Stone et al., 1999). It does not mean people are deceptive; such distortions are unintentional.

Yet, the biases place a threat to the validity of collected data if researchers are interested in people's experiences.

People's memories are prone to the biases especially when they are asked to recall minor, daily experiences (Shiffman et al., 2008). Due to the insignificance of such events, people have to search and collect pieces of information and reconstruct the experience (Shiffman et al., 2008). This search-collect-reconstruct process causes various biases generally known as reconstruction biases (Stone & Shiffman, 1994). Reconstruction bias is a general term to explain people's strategy in recalling an event while relying on availability of information as well as on the ease of access to the information (Stone & Shiffman, 1994). In addition, memory decays; salient and significant events are likely to be stored in memory but minor, daily events are likely to be forgotten (Shiffman & Stone, 1998).

Another problem of data collection about people's past experience is how people summarize or average their past experiences. Generally, when people are asked to summarize the states for an extended period of time—for example, 'how sad were you, on average, last month?'—they do not actually add all the events then average the events, but rather, they are more likely to estimate the value based on significant events or lengths of certain events (Schwarz, 2007).

EMA/EMI has been developed to capture events or experiences that occur frequently but are of minor significance without people's biases. The methods have been often used in behavioral health/medicine in collecting people's mood and associated behavior such as smoking or drinking (Ebner-Priemer & Trull, 2009; Shiffman et al., 2008).

4.2.2 Different Types of EMA/EMI

EMA/EMI refers to a wide range of data collection methods. Here I introduce diaries, self-monitoring, time budget studies, Experience Sampling Method (ESM) (Stone et al., 2007b), and the Day Reconstruction Method (DRM) (Kahneman et al., 2004a).

Diaries methods have been long used for collecting people's daily experiences (Bolger et al., 2003). Participants are often instructed to keep diaries for an extended period of time, mostly for identifying target behavior and its triggering events (Shiffman et al., 2008). The text data offer individual's thoughts and emotions (Green et al., 2006), and capture person's perception or perception change over time. The text data can be combined with a repeated short survey (Bolger et al., 2006; Broderick & Stone, 2006; Green et al., 2006; Takarangi et al., 2006; Tennen et al., 2006). Depending on the research question, the frequency of diary entry can be time-based (e.g., one day), fixed schedules (e.g., interval), variable or random, and event-based (e.g., right after a certain event occurs) (Bolger et al., 2003). Diary methods capture person-level information, within-person change over time, and individual differences in within-person change over time (Bolger et al., 2003). As such, diary data can be used for a causal analysis of within-person changes.

Self-monitoring is often used with behavior therapy (Stone et al., 2007b). Participants are instructed to record a targeted event such as smoking (Shiffman et al., 2000) or drinking (Litt et al., 1998) as well as the event's antecedents and resulted states. This method is useful in collecting data for the intended behavioral change by identifying potential triggering events for patient. However, the method could be problematic since the self-monitoring process itself can be influential in changing participants' behavior. Self-monitoring method makes the participants to pay more attention to their behavior and as a result, encourages behavioral change (Sieck & Mcfall, 1976). The collected data thus can contain biases around the targeted behavior.

Time-budget method has been used to understand how people spend time, and has been

mostly used to understand differences between people from geographical locations/countries

(Szalai, 1966b) or of gender (Bittman & Wajcman, 2000). Especially, the data contain

information on the activities that economic or market data do not explain—how people allocate

their own time to various activities such as housework or during leisure time. Time budget

research has been used in urban planning (Anderson, 1971) as well as tourism (Pearce, 1988).

Researchers use surveys in which participants record their time usage (Knauth et al., 1983) or

interview participants directly to understand how individuals spent a day (Szalai, 1966a). The

method is excellent in collecting information on minor events such as leisure or break, which is

usually hard to correctly recall (Stone et al., 2007b).

Experience Sampling Method (ESM) was developed based on the idea that researchers

can sample people's daily lives at an interval or random times (Csikszentmihalyi & Larson,

1987). Originally started with a beeper as a reminder to record their states (Diener et al., 2009b;

Stone et al., 2007b), the potential for data collection and processing has recently increased

significantly with the development of technologies such as smartphones and mobile computers

(Oorschot et al., 2009; Uy et al., 2010). In ESM, participants receive signals/reminders to fill out

a short survey multiple times a day for on average two-three weeks (Oorschot et al., 2009; Uy et

al., 2010). This allows researchers to collect data on thoughts and emotions on hourly or daily

basis, thus to capture within-person change over time (Csikszentmihalyi, 1991).

Although quite versatile in collecting finer data points, the limitations of ESM are a high

attrition rate of the participants (Christensen et al., 2003) and the lack of time budget data

(Kahneman et al., 2004a). ESM prompts participants to fill in a survey multiple times a day for

more than two weeks, and the survey must be filled out within a certain time frame (e.g., within

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30 minute of the reminder) (Christensen et al., 2003). Motivating participants to correctly follow the protocol as well as to complete the series of survey are major challenges that researchers need to consider in their research planning (Christensen et al., 2003; Uy et al., 2010). ESM is suitable for randomly sampling participants' experiences throughout the data collection period, yet the experiences during the intervals are not captured (Stone et al., 2007b). Thus, if researchers are interested in understanding how people spend time rather than collecting random moments' data, researchers need to conduct time budget research.

The Day Reconstruction Method was introduced in 2004 by Kahneman and colleagues as a method that combines the benefits of time budget study and ESM's affect data collection (Kahneman et al., 2004a). Kahneman and his colleagues are leading scholars in hedonic well-being studies, and the 2004 study was intended to show the robustness of the DRM data by contrasting the data collected from the same participants with DRM and ESM (Kahneman et al., 2004a). DRM is designed to reconstruct yesterday as a sequence of activities and events that participants experienced. After rebuilding the whole day from the time they got up and to the time they went to bed, participants are asked to fill out the survey about the context of activity as well as affective experience (Kahneman et al., 2004a). By using ESM's approach to affect, DRM captures emotions and feelings as the participants experience with little recollection bias (Dockray et al., 2010). DRM is said to be superior to ESM because DRM 'imposes less respondent burden; does not disrupt normal activities; and provides an assessment of contiguous episodes over a full day'(Kahneman et al., 2004a: 1777) in addition to time budget data collected from DRM.

As shown, EMA/EMI methods and tools were developed and evolved in various yet separate fields. With the increased interests in understanding people's daily lives, however, the

framework and tools for capturing people's real time experience in the normal setting have been integrated and evolving further (Stone et al., 2007b). This thesis takes advantage of this development, and capture entrepreneurs' experience during their startup processes to understand how they manage to keep motivated.

4.2.3 EMA/EMI in Entrepreneurship Research

Notably, EMA/EMI has been applied in entrepreneurship research. Foo et al. (2009) used ESM and conducted a longitudinal study which examined the influences of negative and positive affect on subsequent effort level by entrepreneurs. Their findings suggest that both positive and negative affect increases venture efforts on tasks immediately required as well as on tasks beyond what is immediately required. They followed entrepreneurs for 24 days, and showed that the influences of affect on within-day effort and next-day effort level. This study shows that affect influences entrepreneur's intention and behavior, and authors encourage further efforts in examining the affect-intention relationship. They suggest that different patterns might emerge from longer-term observations, since their research captured the pattern over about a month. These studies show the potential and challenge of affect research in entrepreneurship— although affect is likely to influence entrepreneurs' behavior, the efforts in capturing affective states as well as their consequences are still in developmental stage.

Uy et al. (2010) describes potential usage of ESM in entrepreneurship research. The article is an excellent guideline for researchers who are interested in collecting and analyzing real-time data using ESM. Specifically, ESM can be utilized in understanding entrepreneurs' motivation, or their thoughts throughout their entrepreneurial processes.

However, not many studies have been conducted using real-time data collection. As such, this study is intended to examine the potential of DRM in the entrepreneurship research context.

4.3. Research Questions

This study examines the potential application of DRM to entrepreneurship research. Overarching research questions are; how should DRM be modified to be used in entrepreneurship research context? What types of hypotheses can researchers test with the DRM data?

In the following section, I develop hypotheses, and then show how DRM has been used in other academic fields.

4.3.1 Hypotheses

Based on the results of Study 1, I developed hypotheses that might be able to test with the data collected through DRM.

From the results of Study 1, I expect that entrepreneurs in pre-launch stage shows higher levels of arousal in both positive and negative affect. Entrepreneurs at this stage are excited about their business ideas and experiencing new areas of business, thus show higher arousal, positive affect states more often. At the same time, since the uncertainty around their business ideas is high and they cannot know what the right approach to successfully execute their ideas. Thus, entrepreneurs concurrently experience both positive and negative affect at high arousal level.

In contrast, entrepreneurs in the launching stage would feel low-arousal, negative affect state dominantly. This is due to decreased level of uncertainty as well as newness to what they are doing. In the launching stage, most startup tasks have become routine thus cause less excitement. Such experience then causes boredom on what they are doing, while disappointment about their business—mostly, the initial enthusiastic response from their business launch has ceased to exist, thus the same business routine does not bring in strong reactions from customers.

After exiting launching stage when they experience negative, low arousal affect frequently, entrepreneurs enter post-launch stage. At this stage, entrepreneurs start thinking about growing their businesses or launching the second line of products/service. By this stage, entrepreneurs know certain tasks make them feel good, thus they have become good at manipulating their affective states. Thus, their affect states change frequently; since their business experience setbacks and criticisms as well, they experience low arousal level of both positive and negative affect.

Stated formally,

Hypothesis 1: Entrepreneurs at pre-launch stage of their first product exhibit both positive and negative affect at high arousal level more frequently than other stages.

Hypothesis 2: Entrepreneurs at launching stage of their first product exhibit negative affect at low arousal level more frequently than other stages.

Hypothesis 3: Entrepreneurs at post-launch stage of their first product exhibit more frequent changes in their affective state than other stages.

I will also analyze whether entrepreneurial behavior is more effective in inducing positive affect, and whether entrepreneurs learn to manipulate their affective states through behaviors. Study 1 suggests that entrepreneurs engage in entrepreneurial tasks in order to feel good about what they are doing. As a result, entrepreneur experience high level of excitement, happiness, and joy.

Well-being literature suggests that people are driven to satisfy their basic psychological needs (Ryan & Deci, 2001), and try to feel good as a result of their choice (Kahneman et al., 1999). Basic psychological needs—autonomy, relatedness, competence—innately drive people's behavior (Deci & Ryan, 2002). Thus in the entrepreneurship context, entrepreneurial behavior, such as verifying their idea as a product, expanding business networks, or exploring new areas of business, is likely to fulfill basic psychological needs, more than managerial tasks and behaviors. When their basic psychological needs are fulfilled, they feel positive affect, content and happy (Ryan & Deci, 2001). Formally stated,

> *Hypothesis 4: Entrepreneurs feel more positive affect when they are engaged in entrepreneurial tasks than when they are engaged in managerial tasks.*

Since entrepreneurship is a process, it is likely that entrepreneurs learn from their past behavior that entrepreneurial behaviors induce positive affect (Gross & John, 2003), and entrepreneurs are drawn to engage in similar behaviors. Thus, persevering entrepreneurs are better at manipulating their affective states than entrepreneurs at the very early stage. Similarly, entrepreneurs who have more startup experiences are likely to know what makes them feel positive emotions. I will analyze the learning aspect of entrepreneurs' behavioral strategy. Formally stated,

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Hypothesis 5: Entrepreneurial experience positively correlates with the frequency of positive affect inducing behavior.

4.3.2 Day Reconstruction Method in Use

The DRM has been developed and employed in well-being studies (Kahneman et al., 2004a) in order to assess people's time budget information (how people spend their time) and the perception of life experience (how they experience activities and settings). DRM is a type of survey which asks participants to recall yesterday, then fill out the survey for the day. Understanding people's perception of life events—*how* they experience each moment of their lives—is the key to understand their decisions.

The DRM was developed to overcome the shortcomings of ESM (Kahneman et al., 2004a). The DRM is less burdensome for participants, does not interrupt daily activities, generates a full-day account of events and time budget information (Kahneman et al., 2004a). DRM asks participants to first answer general questions about themselves, then recall yesterday from the time they got up to the time they went to bed. After reconstructing a whole day, participants answer questions about the nature of tasks, feelings, and contexts of each event throughout the day. Thus, the DRM captures a whole day of a person with little recollection bias (within 24 hours). The affect/feeling data generated by the DRM and ESM have been compared, and it has been verified that the DRM produces compatible data for assessing mood with ESM (Dockray et al., 2010; Kahneman et al., 2004a).

In the past DRM studies, scholars were simply interested in the influence of personal or episodic characteristics on the person's mood. As a result, the DRM survey tool focuses on a homogenous population (e.g., school children, women with a full-time job), and examine the

general trend in mood change. For example, Kahneman and colleagues seem to use the same

data structure to examine working women (Dockray et al., 2010; Kahneman et al., 2004a;

Krueger & Schkade, 2008; Stone et al., 2006). These studies mostly examine when in a day

women feel happier or more irritated—mood change throughout a day. In these studies,

although post-survey questions contain job-related questions, researchers have not incorporated

the nature of work and its relationship with their mood.

4.4 Collecting Data with Day Reconstruction Method

4.4.1 Examining Existing DRM

The DRM starts with a questionnaire (packet 1), a kind of pre-survey, asking

participants' mood in general, attitude toward life, education, income, and racial background

(Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004b; Schkade). Many questions regarding

family composition and co-habitation were also included. This probably results from the

research questions that well-being scholars ask: what makes people happy. Specifically, the

DRM projects led by Schkade and Kahneman (Kahneman et al., 2004a; Schkade) seem to focus

on women's happiness level and causes for such states. Thus, the DRM packets made available

to public do not contain questions regarding the respondent's gender. Instead, the first packet

extensively asks family members, including ages of all the children, biological or not. This

seems to assume that women take care of family members and bear significant amount of

housework, or original design reflects their research question.

After filling out the first booklet of survey, participants proceed to the second packet

which prompts them to recall 'yesterday'. The booklet (packet 2) asks participants to think about

a whole day and reconstruct a day. Specifically, it asks what time they got up, what they did in

the morning, afternoon, evening, then what time they went to bed. Researchers do not collect the

second packet to ensure the participants' privacy. The packet specifically mentions that it would

not be collected by researchers, thus participants should write notes as freely as possible. Each

action or event the participants experienced should be segmented from 20 minutes to two hours.

If the action is shorter than 20 minutes, the survey encourages participants to group the event

with another event. If the event is longer than two hours, then the survey asks the participants to

split it into more detailed events. In this way, the packet 2 enables participants to rebuild a day

as a sequence of events.

The third booklet is the major data collection effort. The booklet (packet3) is the thickest

of all the booklets. After re-constructing yesterday with the packet 2, the participants are asked

to fill out questions about each event throughout the day. Participants rate their affective state,

the environment/context, and the nature of each event, while referring to the packet 2. The

packet is thickest since each event has two-page long questions while there are enough forms for

the participants to answer 30 events. In most cases, participants do not need forms for more than

20 events, thus many blank sheets usually remain.

The fourth booklet is a post-survey, asking today's mood as well as general information,

their preference about life events, and habits. This includes how others see the respondent, what

generally satisfies the respondent, and what makes them feel negative emotions.

4.4.2 Modifications for Business Startup Contexts

Based on the past studies using the DRM, I modified the survey to suit the research

purpose. I modified the packet and inserted questions about their business, especially business

startup stage they are in. I also deleted many questions regarding their family or general life status to decrease the burden for respondents.

Since participants in this study repeat the survey for another day, packet 1 was only delivered at the first day. Similarly, most part of packet 4 has been deleted for the second day. In line with past DRM surveys, I put packets (booklets) in envelops. Participating entrepreneurs received packets consisting of three envelops: consent form and cover letter in a big envelop, and two smaller envelops that contain DRM survey. Entrepreneurs are asked to re-construct the previous day for two non-consecutive days within a week, according to previous DRM studies.

Although the DRM is said to be less burdensome to participants, it still requires 45-75 minutes to fill out the first set of survey. As a result, some entrepreneurs told that they filled out the packet 3 throughout a day while carrying it around. This would reduce recollection bias, but at the same time, increase the influence of the mood when the entrepreneur filled out the packet.

4.4.2.1 Affective states

In the DRM survey, participants are asked to recall 'yesterday' as a sequence of episodes from the time they woke up to the time they went to bed. After they constructed the whole day, participants are asked to rate their feelings during each episode. Participants rate the feelings on a series of 7-point scales from 0 (= not at all) to 6 (= very strongly). The affective states asked are happy, competent/confident, interested/focused, affectionate/friendly, calm/relaxed, impatient for it to end, tense/stressed, depressed/blue, irritated/angry, and tired.

Positive affect is the average of happy, interested/focused, and affectionate/friendly (Kahneman et al., 2004a). Negative affect is the average of tense/stressed, depressed/blue, and irritated/angry (Kahneman et al., 2004a). This measurement corresponds to PANAS scale items

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as well as ESM studies (Foo et al., 2009; Watson & Clark, 1994; Watson, Clark, & Tellegen, 1988a).

I analyze other moods / affective states separately: impatient for it to end, competent/confident, calm/relaxed, and tired. These moods load to other affective states than positive/negative: fatigue and serenity (Watson & Clark, 1994).

4.4.2.2 Behavior / activity

Participants are asked to categorize each episode as a type of activity, and I categorized these activities into three major categories: non-work activities, management tasks, and entrepreneurial tasks. Past DRM studies have not categorized each activity; rather, the studies examined the relationship between each activity and moods. Most importantly, past DRM studies did not differentiate the nature of 'work' the participants are engaged in.

Based on the results of Study 1, I have added work-related items while keeping non-work related items (Kahneman et al., 2004b; Schkade). Non-work activities are commuting / traveling, talking / conversation, grooming / self-care, relaxing / nothing special, playing, eating, shopping / errands, watching television, exercising, doing housework, listening to music, walking, preparing food, listening to radio / news, making love, taking care of children, home computer, rest/sleep, reading (non-work), and praying/worshipping/meditating. Management related activities are management / supervisory work, reading (work-related), emailing, web-browsing, and meeting (routine). Entrepreneurial tasks are research, networking, product development, brainstorming, and meeting (ad hoc).

Although the above categorization is a general guideline, since people can check more than one activity thus I examined the combination of activities as well as the person's situation in

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the business startup. Some activities which are hard to be categorized are discarded and not used in the analysis.

4.4.2.3 Control variables

Context of each episode/activity. The DRM survey collects the data about the context of each episode. For example, each episode is reported with the length of time (what time it started and ended), the place of occurrence, and the people present in the episode. This helps me to correctly classify each episode into types of activities (non-work, management, entrepreneurship) as well as to identify influential factors affecting their moods.

Overall mood. Overall mood throughout the day is measured with a series of 7 point scales, same as the scales used for the mood measurement of each episode. The overall mood could show high correlation with the each episode's mood, thus the effects will be taken into consideration at the analysis stage.

Other questionnaire items such as statement agreement ('happiness is difficult to reach') and word-association are used to assess the overall mood of the person in general. This data is not included in the current analysis, but is used to verify the individual level factors that influence daily mood change.

Overall satisfaction with life. I included questions regarding the entrepreneur's satisfaction with life (4 point scale) as well as being an entrepreneur. The questionnaire asks in which aspect of entrepreneurship/business startup they enjoy; this adds to the verification of this thesis.

Entrepreneurial experience. From the preliminary results of study 1 as well as well-being literature, entrepreneurs are likely to have learned how to manipulate their affective states from their entrepreneurial experiences. Thus, the survey asks the entrepreneur's experience in years. More precisely, the entrepreneurial experience is asked 1) the length of the involvement with the current startup, and 2) startup experience in general, including the startup with the current business.

Other control variables. Since women are likely to feel more joy and sorrow (high intensity) (Fujita, Diener, & Sandvik, 1991), gender is included. Although findings are mixed about the influence, income level is another important factor that might influence moods (Diener et al., 2010; Easterlin, 2001; Kahneman & Deaton; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006). Other control variable includes age (young people are happier), race (white reports higher well-being state), and marital status (any relationship works positive) (Diener, 2009). I also collected data on pleasure/joy and worry/unhappiness in various domain of life such as religion, television, family life, and hobby. These tendencies should correlate with the mood of each activity they conduct throughout the day.

Other questionnaire items such as statement agreement ('happiness is difficult to reach') and word-association are used to assess the overall mood of the person in general. This data are not included in the current analysis, but is used to verify the individual level factors that influence daily mood change.

4.4.3 Sample and Data Collection

I sampled three groups of entrepreneurs based on their entrepreneurial stage—pre-launch, launching, and post-launch. Since this data collection results in multiple observations from one

entrepreneur, the sample size can be small (Uy et al., 2010). I excluded 'portfolio' entrepreneurs who run two or more of their own businesses concurrently, since the mixture of the time spent on different startup stages would make the data analysis and interpretation complicated. I did, however, include 'serial' entrepreneurs, who have experiences in more than one business startup.

The sample entrepreneurs were reached through Small Business Development Center in Syracuse, Syracuse Technology Garden, Falcone Center of Entrepreneurship, and WISE. I relied on the people who have strong networks with entrepreneurs since the data collection greatly relies on the relationship between researchers and respondents (Uy et al., 2010). As a result, I reached out 122 entrepreneurs, and 20 entrepreneurs have filled out the survey. The entrepreneurs are classified to each stage of startup—pre-launch, launching, and post-launch of their first product based on their answers about their business. As a result, seven pre-launch, seven launching, and six post-launch entrepreneurs are included in the study. More female entrepreneurs responded to the survey (13 female).

Total number of observation is 533, averaging 26.65 observations per entrepreneur. More than half of the respondents hold graduate degrees. Other general information about the survey respondents are summarized in Table 4.

Table 5: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Age	43.76654	12.3979	22	71
Current startup (year)	3.991268	4.498923	0.2	18
Startup Experience (Year)	5.589706	5.042289	0	18
Typical Work Day Positive	4.716299	0.947241	2.666667	6

Affect[*]				
Typical Work Day Negative Affect[*]	1.469363	0.85295	0	3.666667

*0:not at all, 6: Very much

4.5 Data Analysis

Analysis of the resulting data is through 1) descriptive statistics, 2) ANOVA (t-test), and 3) multi-level modeling due to the observations' interdependence (Schwartz & Stone, 1998; Uy et al., 2010). Since my hypotheses include the sequence of events or reciprocal relationships between affect and behavior, the modeling includes ragged effects into consideration (Uy et al., 2010).

Specifically, hypothesis 1 (pre-launch stage entrepreneurs experience high-arousal level of affect) is tested with nested ANOVA. I examined the frequency of which each positive affect state (happy, competent/confident, interested/focused, affectionate/friendly, calm/relaxed) exceeds the overall mood of the day for each individual. Similarly, I tested each negative affect state (impatient for it to end, tense/stressed, depressed/blue, irritated/angry, tired) and compared with the day's overall mood. Each stage of startup is categorized as a dummy variable, and I tried to see the difference across the each category.

Hypothesis 2 (launching stage entrepreneur feel low arousal, negative affect) is tested similarly, focusing on launching stage entrepreneur's negative affect states. I expected that entrepreneurs in launching stage experience more negative affect states. I also tested if they experience stronger negative affect for their overall day mood.

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Hypothesis 3 (post-launch stage entrepreneurs experience frequent mood change) is tested as the frequency of affect change of more than scale 1 between episodes. For example, if an event has the value of 3 positive affect (average), then only when the consequent event had positive affect value of more than 4 or below 2, it is counted as mood change. Similarly, I created the negative affect change frequency variable.

Hypothesis 4 (entrepreneurs feel more positive affect when engaging in entrepreneurial tasks than when in managerial tasks) is tested with nested ANCOVA. By treating each entrepreneur as a dummy variable, all between-person variance is controlled, and the main effect of entrepreneurial tasks on affective state is tested (Schwartz & Stone, 1998). I also conducted robustness check with HLM (unconditional model).

Hypotheses 5 (engaging in mood-changing behavior) are tested with ANOVA as well as HLM since the serial autocorrelation is highly influential in these hypotheses and the dependent variable is binary (Schwartz & Stone, 1998; Uy et al., 2010).

I also followed other DRM and ESM studies and analyze general tendencies of mood change with descriptive statistics (e.g., Csikszentmihalyi, 1991; Kahneman et al., 2004a).

4.5.1 Findings

The ANOVA results about difference in positive affect states between pre-launch stage entrepreneurs and launching/post-launch entrepreneurs are summarized in Table 5.

Table 6: ANOVA (positive affect)

Summary	Mean PosAff		
Stage	Mean	Std. Dev.	Freq.

Prelaunch	3.842632	1.121679	88
Launching	3.597785	1.3381	69
Post Launch	4.188084	0.677339	79
Total	3.886684	1.091761	236

F-statistics was significant (.004), thus in order to examine the detail, I conducted

Bonferroni test. The frequency difference of positive affect between pre-launch and launching

stages is statistically insignificant; the same applies for the difference between pre-launch and

post-launch. Only launching stage and post-launch stage show statistical significance, where

post-launch stage entrepreneurs experience higher levels of affective state (.60 on scale, .003

significance).

Similarly, I tested the negative affect state difference between different stages of

entrepreneurs.

Table 7: ANOVA (negative affect)

Summary	Avr_NegAff		
Stage	Mean	Std. Dev.	Freq.
Prelaunch	1.106922	0.591982	88
Launching	0.629664	0.387591	69
Post Launch	1.236382	0.817691	79
Total	1.010721	0.677017	236

F statistics was also significant (.000), thus with Bonferoni test, I examined the detail.

For negative affect state, launching stage entrepreneurs experience lower levels of negative

affect (p=.000) compared to pre-launch stage entrepreneurs. Yet, pre-launch and post-launch

entrepreneurs do not show statistically significant difference. Launching stage entrepreneurs and

post-launch stage entrepreneurs show statistically significant difference, where post-launch entrepreneurs experience higher level of negative affect.

Both hypotheses 1 and 2 are testing arousal level, while DRM measures typically average three affective scales into score. These two variables are not necessarily measuring the same concept, thus I tested each affective state to see whether entrepreneurs in different stages indeed experience certain affective state more often. All positive affect states were inconclusive, while two negative affect state (Impatient it to end, Depressed) show differences between pre-launch stage entrepreneurs and launching stage entrepreneurs. Yet, this analysis did not consider individual level influence.

In sum, hypotheses 1 and 2 receive partial support. Specifically, post-launch stage entrepreneurs experience higher levels of both positive and negative affect compared to launching stage entrepreneurs. Since hypothesis 2 predicts that launching stage entrepreneurs experience low arousal, negative affect states more often than other stages of entrepreneurs, this shows that post-launch entrepreneurs indeed experience higher level of positive affect. Hypothesis 1 predicts that pre-launch stage entrepreneurs experience high arousal affective states. Although averaged affective states did not show any difference, negative affect state (Impatient it to end, Depressed) were both higher for launching stage entrepreneurs. Thus, it seems that pre-launch stage entrepreneurs indeed experience stronger negative affect states.

Hypothesis 3 (the difference in mood change) is also tested with ANOVA. Hypothesis 3 is supported; entrepreneurs at post-launch stage experience more frequent mood change throughout a day.

Hypothesis 4 about the nature of task (entrepreneurial versus managerial) was not

supported. The results show no difference in the means of affective states, both positive and

negative affect, between these two types of tasks. I also tested whether each affective state

would be different between entrepreneurial and managerial tasks; the result is also inconclusive,

showing not much difference between the nature of tasks.

Table 8: ANCOVA (tasks)

Source	Sum of Squares	Deg of Freedom	Mean Square	F_0
Task (Ent=1, Mgr=2)	1.03	1	1.03	0.71
Individual-Task	252.21	35	7.21	0.00
Residual	25.61	199	.13	
Total	280.11	235	1.20	

Number of observation = 236 R^2 = 0.9086

Adj R^2 = 0.8920

Hypothesis 5 predicts that experienced entrepreneurs engage in positive affect inducing

behavior more frequently. This hypothesis was not supported. The mood change frequency was

tested in two ways. First, the frequency mean was compared across three different stages of

entrepreneurs with ANOVA. I also tested t-statistics for overall startup experience. ANOVA

results are generally inconclusive; entrepreneurs do not differ in the frequency of mood change

based on their business startup stages. Simple regression results show that startup experience

weakly decreases the mood change; the opposite of what I expected as hypothesis.

I tested the magnitude of difference from the day's overall mood with the first-order

autocorrelation. I also used Toesplitz model, assuming that the influence of the previous episode

to the next decrease slower than exponential function (Stone, Shiffman, & Atienza, 2007a). Yet,

the HLM analysis has too much noise to have any statistical significance. I explain the limitation

and necessary modification for future research in the next section.

4.6 Modification for Future Research

After analyzing the data, it has become clear to me that the DRM survey needs modification for properly testing the hypotheses. I elaborate my findings around the structure of the survey and the nature of data.

4.6.1 Potential Research Questions: Perseverance and Behavioral Strategy

At the planning stage of this study, I assumed that I would test entrepreneurs' mood changes throughout a day. I focused on the association between the mood and activity including activities for personal purpose. This is in line with past well-being studies.

If researchers want to test entrepreneurs' perseverance and its relationship with affect, however, the potential dependent variable needs further consideration. For example, should we test the entrepreneur's intention to persevere at each point in time? Or should we examine the association between their overall intentions to persevere at the end of the day/week/month and their average mood changes? Foo et al. (2009) used the question regarding their effort level as dependent variable for the use of ESM. Yet, we will need to examine whether their intentions toward perseverance can be used as proxy for perseverance itself.

The problem with the concept of perseverance is that perseverance is not necessarily a dichotomous variable. Rather, process aspect and longitudinal characteristics accompany the concept—entrepreneurs keep making efforts toward business startups, and some day, they do not make much effort but they are still persisting. Thus, we need to determine the moment of

'quitting' business startup, and then need to use survival analysis in order to accurately determine influential antecedents of entrepreneurs' perseverance during the startup processes.

More importantly, answering questions regarding entrepreneurs' perseverance requires long-term data collection. Researchers will need to collect data from more general population of nascent entrepreneurs continuously for at least one year, desirably, two years or more. The data collection needs to be implemented every week or every other week, thus each entrepreneur creates three levels of data: individual general characteristics (perseverance), day, and diary/each episode.

It should be also noted that when using multi-level analysis, the number of observations at level 1 (in this study, the number of episodes) do not matter as much as the one at level 2 (in this study, the number of respondents). Thus, considering attrition rate during the data collection period, researchers will need to reach out more than 200 nascent entrepreneurs if they are testing entrepreneurs' perseverance.

Since this study collected data for only two days, the sampling error of the day is significant. I also did not incorporate day-level characteristics in this analysis. Yet in future research, conducting three-level data analysis would clarify the source of variance and what leads to perseverance more clearly.

4.6.2 Multi-task and Nature of Task

Another problem I faced was the nature of tasks entrepreneurs engage in. In the past DRM studies, scholars were simply interested in the influence of personal or episodic characteristics on the person's mood. As a result, the DRM survey tool focuses on a homogenous population (e.g., school children, women with a full-time job), and examine the

general trend in mood change. In past DRM surveys, since the survey takers assumed to be working for a paid job, the nature of the work they engage in was not questioned or fully examined (Stone et al., 2006).

On the other hand, I used the survey to collect detailed data of tasks that entrepreneurs execute during the startup processes so that I can examine the influences of tasks on entrepreneurs' mood. Although most activity categories were identifiable through pre-test of the DRM surveys, there were many other tasks that I missed. Most importantly, entrepreneurs often 'multi-task', and sometimes I needed to drop observations only because it was hard for me to determine what the entrepreneur was actually doing. For example, many entrepreneurs emailed and texted while they listened to music. It was hard for me to determine whether the emails were related to their management work, startup tasks, or private nature. Similarly, even when entrepreneurs report that they met potential funders as well as customers with co-founders, it was hard to tell what actually happened during meetings. Such meetings could be for new rounds of funding, or could be simply reporting progress.

Similarly, the contexts of tasks need further clarification. For example, when entrepreneurs repeatedly work on similar tasks throughout the day, the negative affect level increases as it is repeated. This is also influenced strongly by the time of day. People experience negative affect toward the end of day, except the time they go to bed and relaxed (Schimmack, 2003). Another case is the duration of each episode. Although the DRM asks entrepreneurs to rebuild a day as a sequence of 20 minutes to two hour episodes, entrepreneurs seem to be caught in a situation when they keep working on the same tasks for more than two hours. Product development was such an activity category—they think, read, do research, make, and improvise

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what they are working on. The activity goes on for more than three hours, and as a result, it seems that people get irritated and tired toward the end of such activities.

In the future, researchers may identify the routine tasks for participating entrepreneurs, and then ask them whether/how an episode is out of routine as well as is entrepreneurial or managerial from their perception. It would be also necessary to control the effects of time of the day as well as the duration of the episode when analyzing the data.

4.6.3 Anchoring Effect and Variance

The biggest problem I faced was the anchoring effect (Stone et al., 2007a). In the past ESM studies, the influence of previous time has been controlled by using first-order autoregression, AR(1), or toesplitz model modification (Stone et al., 2007a). Yet these studies were mostly interested in the general mood change trend, while this study is interested in controlling such influence, or in using each observation as independent.

Simply put, the DRM survey is not designed to recognize where the neutral point or anchoring point for a person to rate each episode. The DRM is designed to measure happiness levels across individuals, as the happiness studies are interested in when people feel happy or what makes people happy. The variable of focus is the average positive and negative emotion levels. On the other hand, what I tried to test in this study was what makes entrepreneurs feel positive and negative emotions, resulting in their intentions to persevere in business startup. Thus, I need a reference point to compare different episodes and associated moods to understand what makes entrepreneurs happier/gloomier. The nature of emotion scale employed in the DRM survey is seemingly absolute, yet in reality, people's mood/emotion ratings are strongly influenced by previous episodes as well as by their past experience. An entrepreneur attend a

meeting, and the entrepreneur might be rating the emotions and moods at the meeting by comparing the experience to past similar meeting experience, or by comparing to how the entrepreneur felt in the previous time, or comparing to how the entrepreneur felt in general on the day. Current DRM questions do not specify the anchoring point.

In future research, it would be necessary to clearly set the anchoring point in a consistent manner for all the respondents. Potential anchoring points are 1) how the person felt throughout the day, 2) how the person feels on a typical work day, and 3) how the person felt in the previous episode.

4.6.4 Improving Response Rate

Another problem for the DRM is the volume of paper each participant receives. A set of survey requires more than 100 sheets of papers, although many respondents ended up with blank forms (packet 3). As a result, potential participants were often discouraged or intimidated by the volume of the survey. The structure of the DRM survey is also difficult to be conducted by email. Many entrepreneurs requested me to send the survey by email, yet filling out the survey on screen would be too cumbersome with referring to another file (packet 2) then rating their emotions at the time (packet 3).

Since the DRM is relatively new method published in 2004, it seems that survey modification is still an ongoing task. Although I contacted one of the authors of the DRM study (Kahneman et al., 2004a) about potential modification of the tool, some questions or rules used in the original DRM survey were adopted as in the original studies. As a result, I could not reduce the volume of the survey enough, and the survey tool became intimidating to participants while printing and mailing costs were significant

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Some participants suggested on-line or smartphone-based survey for easier access to the survey. In such cases, it would be helpful to construct a routine day/task for each respondent before they actually fill out their days, as a part of pre-survey process.

After conducting the DRM data collection as well as clarifying research questions for this study, however, I also believe that it would be feasible to incorporate an approach taken by event-contingent ESM (Diener et al., 2009b), particularly for answering hypotheses tested in this study. In order to test the effects of tasks on entrepreneurial perseverance, it would be desirable to identify events/episodes that strongly influence entrepreneurs' mood. Data collection should be focused on the difference between entrepreneurial tasks and managerial tasks as each entrepreneurs perceive, and how these tasks influence their mood or their intention to keep putting effort toward business startups.

Originally, I expected that private episodes such as grooming, hobby, or talking to friends would have significant effects in changing entrepreneurs' mood. Although it is still possible that these events influence entrepreneurs' mood, adding these personal events significantly increased the time that respondents need to fill out the survey. Personal tasks can be and should be eliminated from future data collection if researchers are not particularly testing the personal episodes.
4.7 Discussion and ConclusionThis study examined the DRM protocol in the context of business startup. As mentioned in the previous section, I believe that modifying the DRM to fit entrepreneurship or business startup contexts would be important for future research. My general observation of the DRM is that the DRM has been designed to collect data in some kind of organizational settings. By so doing, researchers are able to control common characteristics around the respondents' organizational environment. It also controls the range of sampled dates when respondents fill out the survey. Past ESM studies also control the sampled time. On the

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other hand, if a researcher collects data from entrepreneurs by interviews or mail with the DRM, the DRM allows larger sampling errors as well as unobserved biases in the data.

The DRM by design enables researchers to capture data of people's lives in detail, and researchers also get time budget information. This shows that the DRM has a great potential in collecting data on the startup processes. For example, what kind of tasks would be more beneficial for entrepreneurs to secure funding or achieving sales faster? How long per day should they work on if they want to succeed or persevere? The data would also capture the influence of entrepreneurs' personal lives on their business decisions.

The DRM data in general, however, need to consider the influence of autocorrelation. As discussed in the previous section, a t-1 episode seems to influence the mood in the time t period. For example, Study 1 results show that entrepreneurs at launching stage experience low arousal, negative affect states more frequently than other stages. However, when entrepreneurs are asked how they are feeling, they usually do not compare their current mood with their mood in different stages. Although I could determine different arousal levels and moods from their diary blogs, entrepreneurs are usually unaware of the absolute level of their emotions/mood. Thus, entrepreneurs answer how they are feeling based on their momentary assessment of the day, or what they experienced so far on the day. For example, even if an entrepreneur reports level 4 happiness on two separate days, the two observations of level 4 happiness do not necessarily mean the same level of happiness in absolute sense. Similarly, I was not able to examine whether the respondent refer to the previous time episode or to the similar episodes in the past when they rate their mood at current time. In the future, researchers need to instruct respondents on how to rate their mood/emotions (i.e., specifying anchoring point) so that the rated scales would have consistent meaning.

Although I see many limitations and necessary future modifications, this study makes two contributions. First, to entrepreneurship research, I offer a new data collection method which will give time budget information of entrepreneurs' startup processes. Although I only tested their affective states and the association with each event, this tool would be useful in understanding and analyzing entrepreneurs' time management and potentially, in predicting future business success.

Second, to well-being studies, especially for happiness studies, I offer an example to differentiate the nature of work/task people engage in. Since many entrepreneurs do not have a set schedule throughout a work week as most employed workers do, the data I collected capture a wide range of work/task categories that would be useful in understanding people's work-related motivation.

DRM opens up a great potential for data collection in entrepreneurship research. If researchers use DRM to capture entrepreneurs' daily lives and collect data longitudinally, collected data would enable us to understand many research questions that have been unanswered.

5. Entrepreneurial Behavior toward Perseverance

Through this thesis, I tried to find an answer to a simple question: how do entrepreneurs keep making efforts toward business foundation, without seeing tangible results for a prolonged period of time? Due to the lost income of entrepreneurs, current theories of entrepreneurship implicitly assume that entrepreneurs are somewhat unreasonable people—overconfident, optimistic, and risk-taking. Although these personal characteristics might explain some aspects of entrepreneurship and business startup, we also know that entrepreneurs are not blindly overconfident or optimistic. Even if we assume that entrepreneurs think that their businesses would be successful at the beginning, many entrepreneurs keep pursuing their business startup without achieving tangible results or profits for more than two years (Reynolds & Curtin, 2008). If entrepreneurs put efforts for business startups for a prolonged period of time, factors other than profit or business success might be playing important roles.

Through a multiple-case study, I showed that entrepreneurs use their behavior or actions to feel good about themselves or what they are doing. Since it is hard to measure their achievement level against their business goals, entrepreneurs' motivation for making effort cannot be fully explained by existing work motivation theories. Without the correct assessment of their achievement level, entrepreneurs need to feel good about themselves or what they are doing, and fuel their motivation toward business startup. With hedonic well-being literature, Study 1 showed how entrepreneurs use behavior to induce positive affect during the startup process.

Study 1 also showed that the most critical state for perseverance—doubt stage which is a prolonged, low-arousal negative affect state. Many entrepreneurs enter this state during the

launching stage when the reality about their business catches up. As a result, entrepreneurs ask a question, 'why am I doing this?' Persevering entrepreneurs find their own answers to their question such as challenging tasks, exciting experience, and creating value in this world, and they pursue their startup processes based on the answer. After this stage, entrepreneurship or business startup becomes a lifestyle, or something that entrepreneurs find their meaning of life in.

Study 2 explored the use of DRM for collecting data on entrepreneurs' business startup experience. The collected data show the great promise for using the DRM in the future. DRM allows researchers to see what entrepreneurs actually do during their normal days. Entrepreneurs' time budget data would be powerful in answering many research questions regarding business startup.

During the Study 2 data collection, I also asked questions about perseverance to participating entrepreneurs. Almost all the entrepreneurs answered that they have considered quitting the startup process. Yet, more than 80 percent of them said that quitting thoughts occurred when they saw salaried workers ('it would be so easy to earn money…') or when they thought about their financial stability. If entrepreneurs think about quitting when they consider financial aspects accompanying business startup, then past theories that assume business success drives entrepreneurs contradict what entrepreneurs actually tell us. These entrepreneurs also mentioned that entrepreneurship or business startup is 'so much fun', 'exciting', 'challenging', 'can see what I achieved'. It seems to me that entrepreneurial perseverance should be explained by such life satisfaction and fulfillment of human potential.

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This dissertation makes several contributions. First, I offer an alternative theoretical framework that explains entrepreneurs' continuous effort during their business startup processes. In the past, entrepreneurship research has been silent about how entrepreneurs keep making efforts toward business startup for more than a year. Of course, entrepreneurial resilience has been theorized and tested (Krueger, Schulte, & Stamp, 2008). Yet, the focus of resilience studies is how entrepreneurs overcome setbacks. This thesis offers a complete picture of what drives each entrepreneur to persevere—not only when they face problems, but what factors actually motivate entrepreneurs to make effort toward business startup.

Second, I contribute to well-being studies. In the past, two schools of well-being studies asked different research questions, thus debated over the definitions of well-being (Deci & Ryan, 2002). Happiness studies or hedonic well-being scholars have tried to identify when or what makes people to feel happy (=positive emotions) (Diener, Suh, Lucas, & Smith, 1999) while eudaimonic well-being scholars contend that people are driven to achieve the meaning of life or to satisfy their basic psychological needs (autonomy, competence, relatedness) (Deci & Ryan, 1985). Study 1 results show that the two concepts of well-being are equally important in explaining entrepreneurs' motivation and perseverance during the startup processes. From day-to-day operations, it seems that entrepreneurs tend to behave in ways to maximize their positive emotions. Yet in considering career choice or future paths, entrepreneurs need to define business startup as personal growth by challenging themselves. Basic psychological needs are the common factors that promote entrepreneurship—challenging themselves with new areas of business, doing what they are passionate about, meeting new people, and getting their ideas and themselves verified through the startup experiences. This dissertation offers how the two

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different well-being concepts operate and contribute to perseverance during the business startup process.

Third, I make practical contributions for entrepreneurs or nascent entrepreneurs. This thesis shows that pursuing financial success only would hinder their perseverance during the startup. Rather, nascent entrepreneurs need to know what is important for them as an entrepreneur during business startups. It is true that financial consideration is important for entrepreneurs to succeed; if they are only losing money, their business would not be feasible. However, if entrepreneurs mainly care about financial success during their startup process, they would face a challenging stage with doubt about their belief and themselves. As researchers have shown, employed position would generate more stable and larger sum of income than self-employment. Thus, entrepreneurs need to be able to enjoy the process of self-fulfillment, sometimes using their behavior to feel good about what they do and who they are.

This dissertation has a limitation. Study 2 ended as a pilot study. It would require at least one more year to have meaningful results on the same research questions after re-designing the survey tool. It is also necessary to consider acquiring funding for data collection; it would be either paper or online survey but website development as well as distribution/collection of paper survey would require some funding. Additionally, the incentives for entrepreneurs to collaborate data collection longitudinally need to be incorporated. Although many entrepreneurs filled out the survey for two days period of time, it was more burdensome than usual surveys. A couple of entrepreneurs specifically requested monetary compensation. Many entrepreneurs declined after looking at the survey or knowing how long it takes; in the end, entrepreneurs are busy. Careful planning and execution would be necessary for future research.

Yet, I strongly believe that this dissertation advances our understanding of organization emergence. With the process research design, I showed how people persevere during their business startup processes, thus eventually, establish legitimate organizations. With the theoretical framework, entrepreneurship becomes a process in which entrepreneurs seek happiness, contentment, and self-fulfillment. I do not deny that monetary incentives motivate entrepreneurs—sales or securing funding shows that their business idea is good. Nonetheless, I believe that this dissertation has showed that business startup cannot be only about financial success. Rather, entrepreneurs need to enjoy the process, grow personally, and achieve full potential of themselves.

Annex: The DRM Packets

Packet 1

First we have some general questions about your life.

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, please indicate your agreement with each statement by circling the appropriate number on the 7-point scale.

"In most ways my life is close to my ideal."

strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	2	3	4	5	6	7

"The conditions of my life are excellent."

strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	2	3	4	5	6	7

"I am satisfied with my life."

strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	2	3	4	5	6	7

"So far I have gotten the important things I want in life."

strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	2	3	4	5	6	7

"If I could live my life over, I would change almost nothing."

strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree
1	2	3	4	5	6	7

Overall, how satisfied are you with your present job? Are you
　　__ very satisfied, __ satisfied, __ not very satisfied, __ not at all satisfied?

We would also like to know how you feel and what your mood is when you are at work /
working on your startup. When you are at work / startup, what percentage of the time are you
　　　　in a bad mood.............................____%
　　　　a little low or irritable................. ____%
　　　　in a mildly pleasant mood...........____%
　　　　in a very good mood................... ____%
　　　　　　　　　　　Sum 100%

Next, we would like to ask for some background information about you, for statistical purposes.

    1. What year were you born? _____

    2. What is your gender?   __ Male   __ Female

    3. What is the highest level of education you have completed?

        __ Some high school or less

        __ High school diploma or equivalent

        __ Some college

        __ College diploma

        __ Some graduate school

        __ Graduate degree

    4. What is your current family status? Are you currently married, living with a significant other, separated, divorced, widowed, or single and never married?

        __ Married

        __ Living with significant other, but not married

        __ Separated

        __ Divorced

        __ Widowed

        __ Single and never married

    5. Do you share a home with a spouse or significant other? ___ Yes ___No

    6. Including yourself, how many people live in your household? _____

    7. Do you live with your parents?   ___ Yes ___ No

    8. Do you live with your spouse's parents?   ___ Yes ___ No

    9. Do you live with children?   ___ Yes ___No

        If yes, please list their ages. _____

10. Which of the following categories **best** describes you?
　__ African American
　__ Hispanic
　__ Caucasian
　__ Asian American
　__ Native American
　__ South Asian/Indian Subcontinent
　__ Multi-racial
　__ Other, please specify: _____

10. What is your business startup stage? Please check all that apply. If you are involved in more than one business startup or own more than one business, please answer about the most recent one.
　__ have a business idea but have not written a business plan
　__ have written a business plan
　__ the first line of product / service is idea / concept
　__ the first line of product / service is in development stage
　__ the first line of product / service is ready for sale
　__ the first line of product / service has achieved sales
　__ the second line of product / service is in idea stage
　__ the second line of product / service is in development stage
　__ the second line of product / service is ready for sale
　__ the second line of product / service achieved sales
　__ beyond the second line of products / service
　__ have asked for potential funding to others or financial institutions for the above product
　__ financing stage for the above product has been completed
　__ have hired employees
　__ have registered the business / obtained business licenses
　__ have filed federal (social security) tax

11. If you have already started your own business, how is your business today? If you are involved in more than one business startup or own more than one business, please answer about the most recent one.
　__ a lot worse than expected　　　　　__ a little worse than expected
　__ as expected
　__ a little better than expected　　　　__ a lot better than expected

12. What industry is your startup company in (*not yourself/your responsibility in the company, but your company)? Please select the closest one. If you are involved in more than one business startup or own more than one business, please answer about the most recent one.

      ___ Agriculture, Forestry, Fishing, and Hunting
      ___ Mining
      ___ Utilities
      ___ Construction
      ___ Manufacturing
      ___ Wholesale Trade
      ___ Retail Trade
      ___ Transportation and Warehousing
      ___ Information
      ___ Finance and Insurance
      ___ Real Estate, Rental, and Leasing
      ___ Professional, Scientific, and Technical Services
      ___ Management of Companies and Enterprises
      ___ Administrative, Support, Waste Management, and Remediation
      ___ Educational Services
      ___ Health Care and Social Assistance
      ___ Arts, Entertainment, and Recreation
      ___ Accommodation and Food Services
      ___ Consumer Services
      ___ Public Administration
      ___ Others; Please specify _____

13. How many employees do you have (please exclude yourself)? If you are involved in more than one business startup or own more than one business, please answer about the most recent one.

      Part-time _____   Full-time _____

14. Do you have co-founders? If you are involved in more than one business startup or own more than one business, please answer about the most recent one.

      __ Yes   __ No (skip to the question 15.)

            If yes,
            how many of them including yourself? _____
            Is any of your family members a co-founder?   __ Yes   __ No

15. How long have you been working on this current startup (months, years)? If you are involved in more than one business startup or own more than one business, please answer about the most recent one.

_____

16. Roughly, how much experience do you have on startups, including current and other business startups?

_____ years

17. How many businesses do you currently own?
__one __two __more than three

18. What is your total annual household income, including your current startup?
__ $10,000 or less
__ $10,001 - $20,000
__ $20,001 - $30,000
__ $30,001 - $40,000
__ $40,001 - $50,000
__ $50,001 - $60,000
__ $60,001 - $70,000
__ $70,001 - $80,000
__ $80,001 - $90,000
__ $90,001 - $100,000
__ more than $100,000

19. Approximately, how much of your total annual household income comes from your current startup? If you are involved in more than one business startup or own more than one business, please answer about the most recent one.

Approximately _____ % of my household income comes from my current startup.

Thank You.

You have completed Packet 1.

**Please return it to the envelope
and open Packet 2-1.**

No. _____

Packet 2-1

*This packet will NOT be collected
by the researcher to protect your privacy.

Please read this page and the next page very carefully.

Yesterday

We would like to learn what you did and how you felt <u>yesterday</u>. Not all days are the same – some are better, some are worse and others are pretty typical. Here we are only asking you about <u>yesterday</u>.

Because some people find it difficult to remember what exactly they did and experienced, we will do this in three steps:
1. On the next page, we will ask you when you <u>woke up</u> and when you <u>went to sleep yesterday</u>.
2. We'd like you to reconstruct what your day was like from the morning to the evening. Where were you, who was with you, what did you do and experience? Answering the questions on the next pages will help you to reconstruct your day.
3. You will use these notes to help you answer other questions about your day that we will ask later in the questionnaire.

You are writing these notes about your day only to yourself and **you <u>do not need to turn in this packet</u>**. It is yours to keep. Your notes in this packet will help you remember and describe what happened yesterday.

Written Log of Yesterday

About what time did you <u>wake up yesterday</u>?   _____
When did you <u>go to sleep last night</u>?   _____

Think of yesterday as a continuous series of scenes or episodes in a movie. On the next pages, you will construct a written log of your day by breaking it down into <u>episodes</u>. ***An episode should last at least 20 minutes but not more than 2 hours.***
A new episode begins when there is a significant change, like in what you're doing or who you're with, or where you are, or because something happened that changed your mood.
For each episode, please write down the approximate time on the clock when each episode began and when it ended. Try to remember the episode in detail, and write a label of a few words that will remind you of exactly what was going on and what you felt (for example, "commuting to work", or "at lunch with friends").

There is one page for each part of yesterday:
     1. <u>Yesterday Morning</u> (from waking up until lunchtime)
     2. <u>Yesterday Afternoon</u> (from lunchtime to about 6:00 pm)
     3. <u>Yesterday Evening</u> (from 6:00 pm until you went to bed)

There is room for 10 episodes for each part of yesterday, but you probably won't need that many.

Remember that the episodes should last between 20 minutes and 2 hours. Sequences of short routine activities like showering and dressing should be grouped as a single episode. Use the breakdown of yesterday that makes the most sense to you and best captures what you did and how you felt.
Choose your labels to help you remember what happened in each episode, when you look at them later.

No one else needs to see your written log of yesterday. You do not have to turn in Packet 2 with the rest of your questionnaire.

Yesterday Morning
(from waking up until just before lunch)

	Time it began	Time it ended	Your label for this episode
1st Morning Episode			
2nd Morning Episode			
3rd Morning Episode			
4th Morning Episode			
5th Morning Episode			
6th Morning Episode			
7th Morning Episode			
8th Morning Episode			
9th Morning Episode			
10th Morning Episode			

Please look over this page once again. Is there an episode that you would want to break up into two parts? If so, make a note of that before moving on.

Yesterday Afternoon

(from lunchtime to about 6:00 pm)

	Time it began	Time it ended	Your label for this episode
1st Afternoon Episode			
2nd Afternoon Episode			
3rd Afternoon Episode			
4th Afternoon Episode			
5th Afternoon Episode			
6th Afternoon Episode			
7th Afternoon Episode			
8th Afternoon Episode			
9th Afternoon Episode			
10th Afternoon Episode			

Please look over this page once again. Is there an episode that you would want to break up into two parts? If so, make a note of that before moving on.

Yesterday Evening

(from 6:00 pm until you went to bed)

	Time it began	Time it ended	Your label for this episode
1st Evening Episode			
2nd Evening Episode			
3rd Evening Episode			
4th Evening Episode			
5th Evening Episode			
6th Evening Episode			
7th Evening Episode			
8th Evening Episode			
9th Evening Episode			
10th Evening Episode			

Please look over this page once again. Is there an episode that you would want to break up into two parts? If so, make a note of that before moving on.

Thank You.

You have completed Packet 2-1.

Please open Packet 3-1,
and keep Packet 2-1 available
to help you
answer those questions of Packet 3-1.

Packet 3-1

- Some people have commented that the categories for 'What were you doing?' do not necessarily match any of the categories which are listed (for example, manufacturing, school work, etc). In that case, please choose 'other' and write briefly what the episode/activity was about. Thank you.

How Yesterday Began

To begin, **please circle** the day of the week that YESTERDAY was:

Monday   Tuesday   Wednesday   Thursday   Friday   Saturday   Sunday

Please think about the beginning of the day yesterday, how it began.

Were you fully rested when you woke up? (circle a number)

Very tired						Completely rested
0	1	2	3	4	5	6

How many hours of sleep did you have? _____ hours

First Morning Episode

Please look at your list of episodes in Packet 2 and select the earliest episode you noted, right after you woke up. When did this first episode begin and end (e.g., 7:30am)? Please try to remember the times as precisely as you can.

This episode began at _____ and ended at _____.

Before answering the questions below take a minute to <u>re-live this episode</u> in detail - everything you were doing, the people you were with and what your feelings were.

Where were you? (if you have a home office, choose which fits better)
    __ home   __ at work   __ in a car   __ elsewhere _____
                                                    (please specify)

Were you alone?
    __ no __ yes

Were you talking with anyone? (check one)
    __ no   __ one person   __ more than one

If you were talking with or interacting with anyone, was it (check all that apply):

__ spouse, significant other	__ co-founders
__ children	__ customers
__ parents	__ suppliers
__ other relatives	__ funding sources
__ friends __ other people not listed	
__ employees (please specify)_____	

What were you doing? (Please read the entire list carefully and check <u>all that apply</u>*)
* If you checked several things you were doing at the same time, please <u>circle the one that seemed the most important to you at the time</u>.

__ commuting, traveling	__ talking (incl. phone)	__ grooming, self-care
__ playing	__ eating	__ relaxing, nothing special
__ shopping, errands	__ watching television	__ exercising
__ doing housework	__ listening to music	__ walking, taking a walk
__ preparing food	__ listening to radio, news	__ making love
__ taking care of others	__ web-browsing	__ rest/sleep
__ reading (non-work)	__ praying/meditating	__ planning
__ reading (work-related)	__ research	__ networking
__ supervising employees	__ writing	__ product development
__ negotiation	__ meeting (routine)	__ meeting (ad hoc)
__ managing finance	__ brainstorming	__ emailing/texting

__ other not listed   (please specify) _____

How did you <u>feel</u> during this episode?

Please rate each feeling on the scale given. A 0 means that you did not experience that feeling at all. A 6 means that you experienced that feeling very strongly. Please circle the number between 0 and 6 that best describes how you felt.

	Not at all						Very strongly
Impatient for it to end	0	1	2	3	4	5	6
Competent / Confident	0	1	2	3	4	5	6
Tense / Stressed	0	1	2	3	4	5	6
Happy	0	1	2	3	4	5	6
Depressed / Blue	0	1	2	3	4	5	6
Interested / Focused	0	1	2	3	4	5	6
Affectionate / Friendly	0	1	2	3	4	5	6
Calm / Relaxed	0	1	2	3	4	5	6
Irritated / Angry	0	1	2	3	4	5	6
Tired	0	1	2	3	4	5	6

2nd Episode

Please look at your list of episodes and select the <u>next</u> episode in Packet 2, right after the one you just rated.

This episode began at _____ and ended at _____.

Before answering the questions below take a minute to <u>re-live this episode</u> in detail - everything you were doing, the people you were with and what your feelings were.

Where were you? (if you have a home office, choose which fits better)
    __ home   __ at work   __ in a car   __ elsewhere _____
                                                        (please specify)

Were you alone?
    __ no __ yes
Were you talking with anyone? (check one)
    __ no   __ one person   __ more than one

If you were talking with or interacting with anyone, was it (check all that apply):
    __ spouse, significant other   __ co-founders
    __ children   __ customers
    __ parents   __ suppliers
    __ other relatives   __ funding sources
    __ friends   __ other people not listed
    __ employees (please specify)_____

What were you doing? (Please read the entire list carefully and check all that apply*)
* If you checked several things you were doing at the same time, please <u>circle</u> the one that seemed the most important to you at the time.

__ commuting, traveling	__ talking (incl. phone)	__ grooming, self-care
__ playing	__ eating	__ relaxing, nothing special
__ shopping, errands	__ watching television	__ exercising
__ doing housework	__ listening to music	__ walking, taking a walk
__ preparing food	__ listening to radio, news	__ making love
__ taking care of others	__ web-browsing	__ rest/sleep
__ reading (non-work)	__ praying/meditating	__ planning
__ reading (work-related)	__ research	__ networking
__ supervising employees	__ writing	__ product development
__ negotiation	__ meeting (routine)	__ meeting (ad hoc)
__ managing finance	__ brainstorming	__ emailing/texting
__ other not listed (please specify) _____		

How did you <u>feel</u> during this episode?

Please rate each feeling on the scale given. A 0 means that you did not experience that feeling at all. A 6 means that you experienced that feeling very strongly. Please circle the number between 0 and 6 that best describes how you felt.

	Not at all						Very strongly
Impatient for it to end	0	1	2	3	4	5	6
Competent / Confident	0	1	2	3	4	5	6
Tense / Stressed	0	1	2	3	4	5	6
Happy	0	1	2	3	4	5	6
Depressed / Blue	0	1	2	3	4	5	6
Interested / Focused	0	1	2	3	4	5	6
Affectionate / Friendly	0	1	2	3	4	5	6
Calm / Relaxed	0	1	2	3	4	5	6
Irritated / Angry	0	1	2	3	4	5	6
Tired	0	1	2	3	4	5	6

If you have completed this form for all the episodes in Packet 2, you can go on to Packet 4. Otherwise, please continue until all of your episodes have been rated.

Packet 4-1

Yesterday Overall

Overall, how did you feel yesterday?
Please rate each feeling on the scale given. A 0 means that you did not experience that feeling at all. A 6 means that the feeling was an important part of your experience yesterday. Please circle the number between 0 and 6 that best describes how you felt.

	Not at all						Very much
Impatient	0	1	2	3	4	5	6
Competent / Confident	0	1	2	3	4	5	6
Tense / Stressed	0	1	2	3	4	5	6
Happy	0	1	2	3	4	5	6
Depressed / Blue	0	1	2	3	4	5	6
Interested / Focused	0	1	2	3	4	5	6
Affectionate / Friendly	0	1	2	3	4	5	6
Calm / Relaxed	0	1	2	3	4	5	6
Irritated / Angry	0	1	2	3	4	5	6
Tired	0	1	2	3	4	5	6

Now we'd like to know how typical yesterday was for that day of the week (i.e., for a Monday, for a Tuesday, etc.). Compared to what that day of the week is usually like, yesterday was (please circle one)

Much Worse	Somewhat Worse	Pretty Typical	Somewhat Better	Much Better
1	2	3	4	5

Was there a moment yesterday that was unusually wonderful or thrilling? (check one)
___No   ___Yes
    If Yes:
    About what time was it? _____
    What made it so great? _____
    _____

Was there a moment yesterday that was unusually awful or difficult? (check one)
___No   ___Yes
    If Yes:
    About what time was it? _____
    What made it so bad? _____

    _____

Additional Questions about You

About what time did you wake up today? _____

Taking all things together, how satisfied are you with your life as a whole these days?
Are you (please check one)
    __ very satisfied, __ satisfied, __ not very satisfied, __ not at all satisfied?

Now we would like to know how you feel and what is your mood in general. Overall, what percentage of the time are you (please fill all blanks)

    in a bad mood............................ ____%
    a little low or irritable.................. ____%
    in a mildly pleasant mood .... ____%
    in a very good mood .... ____%
                     Sum 100%

How satisfied are you with your health these days? Are you
    __ very satisfied __ satisfied __ not very satisfied __ not at all satisfied

In general, how important are religious activities in your life?
    __ very important __ fairly important __ slightly important __ not at all important

During the past month, on average how many hours of actual sleep did you get at night?
    Average hours of sleep per night _____

During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?
    __ no problem at all
    __ only a very slight problem
    __ somewhat of a problem
    __ a very big problem

Do you smoke cigarettes?   __ No __ Yes (if no, skip to next question)
       If you smoke, how many cigarettes do you usually smoke in a day? _____

Do you ever drink wine, beer or liquor?   __ No __ Yes (if no, skip to next page)
       In the last week, on how many days did you have a drink? ___ days

On days when you do have a drink, about how many glasses / cans / drinks do you usually have?

                              __ 1   __ 2 or 3   __ Several

Next, we would like to know how much pleasure and pain you experience in different parts of life. Some parts of your life are pleasant and enjoyable, whereas others may be miserable and painful. But sometimes, the part that gives us the most pleasure may also cause the most pain. Below we first ask you how much pleasure and joy you get from various parts of your life. Then, we ask you similar questions about worry and misery.

How much <u>pleasure and joy</u> do you get from each of these domains of life?

	Little or None		Some		A lot
Spiritual and religious life	1	2	3	4	5
Your neighborhood	1	2	3	4	5
Work	1	2	3	4	5
Television	1	2	3	4	5
Children	1	2	3	4	5
Family (parents, siblings, etc)	1	2	3	4	5
Friends	1	2	3	4	5
Financial security	1	2	3	4	5
Thoughts about the future	1	2	3	4	5
Nature, outdoor activities	1	2	3	4	5
Activity in the community	1	2	3	4	5
Creative hobbies	1	2	3	4	5
Home improvement, gardening	1	2	3	4	5
Sex	1	2	3	4	5
Love and relationships	1	2	3	4	5
Your house and home	1	2	3	4	5
Food and eating	1	2	3	4	5
Your physical condition, health	1	2	3	4	5
Your future career	1	2	3	4	5
Physical activities, sports	1	2	3	4	5
Your looks	1	2	3	4	5
Your weight	1	2	3	4	5
Travel, vacations	1	2	3	4	5
Reading	1	2	3	4	5
Taking walks	1	2	3	4	5
Art, music	1	2	3	4	5
Animal, pets	1	2	3	4	5
The respect you get from others	1	2	3	4	5
Getting older	1	2	3	4	5
Your parents	1	2	3	4	5
Meals with friends	1	2	3	4	5
Regular activities with friends	1	2	3	4	5
Regular family occasions	1	2	3	4	5
The politics of the country	1	2	3	4	5

And how much <u>worry or unhappiness</u> do you experience in these domains of life?

	Little or None		Some		A lot
Spiritual and religious life	1	2	3	4	5
Your neighborhood	1	2	3	4	5
Work	1	2	3	4	5
Television	1	2	3	4	5
Children	1	2	3	4	5
Family (parents, siblings, etc)	1	2	3	4	5
Friends	1	2	3	4	5
Financial security	1	2	3	4	5
Thoughts about the future	1	2	3	4	5
Nature, outdoor activities	1	2	3	4	5
Activity in the community	1	2	3	4	5
Creative hobbies	1	2	3	4	5
Home improvement, gardening	1	2	3	4	5
Sex	1	2	3	4	5
Love and relationships	1	2	3	4	5
Your house and home	1	2	3	4	5
Food and eating	1	2	3	4	5
Your physical condition, health	1	2	3	4	5
Your future career	1	2	3	4	5
Physical activities, sports	1	2	3	4	5
Your looks	1	2	3	4	5
Your weight	1	2	3	4	5
Travel, vacations	1	2	3	4	5
Reading	1	2	3	4	5
Taking walks	1	2	3	4	5
Art, music	1	2	3	4	5
Animal, pets	1	2	3	4	5
The respect you get from others	1	2	3	4	5
Getting older	1	2	3	4	5
Your parents	1	2	3	4	5
Meals with friends	1	2	3	4	5
Regular activities with friends	1	2	3	4	5
Regular family occasions	1	2	3	4	5
The politics of the country	1	2	3	4	5

Life as an Entrepreneur

Please take a minute to think about **a typical day on which you work**, from the time you get up until you go to sleep.

Now please rate each feeling on the scale below. A 0 means that you do not experience that feeling at all <u>during a typical working day</u>. A 6 means that the feeling is an important part of your experience that day. Please circle the number between 0 and 6 that best describes your experience.

	Not at all						Very much
Impatient	0	1	2	3	4	5	6
Competent / Confident	0	1	2	3	4	5	6
Tense / Stressed	0	1	2	3	4	5	6
Happy	0	1	2	3	4	5	6
Depressed / Blue	0	1	2	3	4	5	6
Interested / Focused	0	1	2	3	4	5	6
Affectionate / Friendly	0	1	2	3	4	5	6
Calm / Relaxed	0	1	2	3	4	5	6
Irritated / Angry	0	1	2	3	4	5	6
Tired	0	1	2	3	4	5	6

Why did you choose to start your own business? **If more than one, please choose the top 3 reason and rank them.**

     __ unhappy with my former job
     __ potential better salary
     __ be my own boss
     __ flexibility of time
     __ to create something new
     __ I always wanted to be an entrepreneur.
     __ Interesting/feasible business idea
     __ prestige / social status of entrepreneur
     __other; Please specify_____

2. Have you thought about 'quitting' being an entrepreneur?   Yes   No
     *If yes, when was/is it, and why?

How much are you **satisfied** with being an entrepreneur?

  Not at all   Very much

0	1	2	3	4	5	6

  *Why so? Please explain.

How much is it **exciting** to be an entrepreneur?

Not at all   Very much

0	1	2	3	4	5	6

  *Why so? Please explain.

Thank You Very Much!

You have completed the survey.

Please return this packet to the envelope.

Please make certain that

all three packets

(Packets 1, 3-1, and 4-1)

are in the envelope and that you have completed all the questions.

References

Ajzen, I. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50: 179-211.

Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. 2005. Affect and Creativity at Work. *Administrative Science Quarterly*, 50(3): 367-403.

Amit, R., Maccrimmon, K. R., Zietsma, C., & Oesch, J. M. 2001. Does Money Matter?: Wealth Attainment as the Motive for Initiating Growth-Oriented Technology Ventures. *Journal of Business Venturing*, 16(2): 119-143.

Anderson, J. 1971. Space-Time Budgets and Activity Studies in Urban Geography and Planning. *Environment and planning*, 3(4): 353-368.

Atkinson, J. W. 1964. *An Introduction to Motivation*. Princeton, NJ: Van Nostrand.

Austin, J., Stevenson, H., & Wei-Skillern, J. 2006. Social and Commercial Entrepreneurship: Same, Different, or Both? *Entrepreneurship: Theory & Practice*, 30(1): 1-22.

Balog, K., Mishne, G., & De Rijke, M. 2006. *Why Are They Excited?: Identifying and Explaining Spikes in Blog Mood Levels*. Paper presented at the Proceedings of the European Chapter of the Association of Computational Linguistics (EACL 2006).

Bandura, A. 1977. Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, 84(2): 191-215.

Bandura, A. 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. 1991. Social Cognitive Theory of Self-Regulation. *Organizational Behavior and Human Decision Processes*, 50(2): 248-287.

Baron, R. A. 2004. The Cognitive Perspective: A Valuable Tool for Answering Entrepreneurship's Basic "Why" Questions. *Journal of Business Venturing*, 19(2): 221-239.

Baron, R. A. 2008. The Role of Affect in the Entrepreneurial Process. *Academy of Management Review*, 33(2): 328-340.

Baron, R. A., Tang, J., & Hmieleski, K. M. 2011. The Downside of Being 'Up': Entrepreneurs' Dispositional Positive Affect and Firm Performance. *Strategic Entrepreneurship Journal*, 5(2): 101-119.

Baron, R. A., Hmieleski, K. M., & Henry, R. A. forthcoming. Entrepreneurs' Dispositional Positive Affect: The Potential Benefits – and Potential Costs – of Being "Up". *Journal of Business Venturing*.

Barrick, M. R. & Mount, M. K. 1991. The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, 44(1): 1-26.

Baum, J., Frese, M., & Baron, R. (Eds.). 2007. *The Psychology of Entrepreneurship*. Mahwah, NJ: Lawrence Erlbaum.

Baum, J. R. & Locke, E. A. 2004. The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, 89(4): 587-598.

Becker, G. S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*: National Bureau of Economic Research; distributed by Columbia University Press.

Benz, M. & Frey, B. S. 2004. Being Independent Raises Happiness at Work. *Swedish Economic Policy Review*, 11(2): 95-134.

Benz, M. & Frey, B. S. 2008. Being Independent Is a Great Thing: Subjective Evaluations of Self-Employment and Hierarchy. *Economica*, 75(298): 362-383.

Benz, M. 2009. Entrepreneurship as a Non-Profit-Seeking Activity. *International Entrepreneurship and Management Journal*, 5(1): 23-44.

Bernardo, A. E. & Welch, I. 2001. On the Evolution of Overconfidence and Entrepreneurs. *Journal of Economics & Management Strategy*, 10(3): 301-330.

Bianchi, M. 2010. Financial Development, Entrepreneurship, and Job Satisfaction. *Review of Economics and Statistics*, 94(1): 273-286.

Birch, D., Atkinson, J. W., & Bongort, K. 1974. Cognitive Control of Action. *Cognitive views of human motivation*: 71-84.

Bittman, M. & Wajcman, J. 2000. The Rush Hour: The Character of Leisure Time and Gender Equity. *Social forces*, 79(1): 165-189.

Blanchflower, D. G. & Oswald, A. J. 1992. Entrepreneurship, Happiness and Supernormal Returns: Evidence from Britain and the Us. *SSRN eLibrary*.

Blanchflower, D. G. & Oswald, A. J. 1998. What Makes an Entrepreneur? *Journal of Labor Economics*, 16: 26.

Block, J. & Koellinger, P. 2009. I Can't Get No Satisfaction—Necessity Entrepreneurship and Procedural Utility. *Kyklos*, 62(2): 191-209.

Bobko, P., Roth, P. L., & Potosky, D. 1999. Derivation and Implications of a Meta-Analytic Matrix Incorporating Cognitive Ability, Alternative Predictors, and Job Performance. *Personnel Psychology*, 52(3): 561-589.

Bogdan, R. C. & Biklen, S. K. 1998. *Qualitative Research in Education. An Introduction to Theory and Methods. Third Edition*: Allyn & Bacon, A Viacom Company, 160 Gould St., Needham Heights, MA 02194.

Bolger, N., Davis, A., & Rafaeli, E. 2003. Diary Methods: Capturing Life as It Is Lived. *Annual Review of Psychology*, 54(1): 579-616.

Bolger, N., Shrout, P. E., Green, A. S., Rafaeli, E., & Reis, H. T. 2006. Dear Diary, Is Plastic Better Than Paper? I Can't Remember: Comment on Green, Rafaeli, Bolger, Shrout, and Reis (2006). *Psychological Methods*, 11(1): 123-125.

Bradley, D. E. & Roberts, J. A. 2004. Self-Employment and Job Satisfaction: Investigating the Role of Self-Efficacy, Depression, and Seniority. *Journal of Small Business Management*, 42(1): 37-58.

Brief, A. P. & Weiss, H. M. 2002. Organizational Behavior: Affect in the Workplace. *Annual Review of Psychology*, 53(1): 279-307.

Broderick, J. E. & Stone, A. A. 2006. Paper and Electronic Diaries: Too Early for Conclusions on Compliance Rates and Their Effects-Comment on Green, Rafaeli, Bolger, Shrout, and Reis (2006). *Psychological Methods*, 11(1): 106-111.

Bryant, P. 2007. Self-Regulation and Decision Heuristics in Entrepreneurial Opportunity Evaluation and Exploitation. *Management Decision*, 45(4): 732-748.

Burke, A. E., Fitzroy, F. R., & Nolan, M. A. 2002. Self-Employment Wealth and Job Creation: The Roles of Gender, Non-Pecuniary Motivation and Entrepreneurial Ability. *Small Business Economics*, 19(3): 255-270.

Busenitz, L. W. & Barney, J. B. 1997. Differences between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision-Making. *Journal of Business Venturing*, 12(1): 9-30.

Busenitz, L. W. 1999. Entrepreneurial Risk and Strategic Decision Making: It's a Matter of Perspective. *Journal of Applied Behavioral Science*, 35(3): 325-340.

Caliendo, M. & Kritikos, A. 2012. Searching for the Entrepreneurial Personality: New Evidence and Avenues for Further Research. *Journal of Economic Psychology*, 33(2): 319-324.

Camerer, C. & Lovallo, D. 1999. Overconfidence and Excess Entry: An Experimental Approach. *The American Economic Review*, 89(1): 306-318.

Campbell, C. A. 1992. A Decision Theory Model for Entrepreneurial Acts. *Entrepreneurship: Theory & Practice*, 17(1): 21-27.

Cardon, M. S., Zietsma, C., Saparito, P., Matherne, B. P., & Davis, C. 2005. A Tale of Passion: New Insights into Entrepreneurship from a Parenthood Metaphor. *Journal of Business Venturing*, 20(1): 23-45.

Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. 2009. The Nature and Experience of Entrepreneurial Passion. *Academy of Management Review*, 34(3): 511-532.

Carree, M. & Verheul, I. 2012. What Makes Entrepreneurs Happy? Determinants of Satisfaction among Founders. *Journal of Happiness Studies*, 13(2): 371-387.

Carree, M. & Verheul, I. forthcoming. What Makes Entrepreneurs Happy? Determinants of Satisfaction among Founders. *Journal of Happiness Studies*: 1-17.

Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. 2003. The Career Reasons of Nascent Entrepreneurs. *Journal of Business Venturing*, 18(1): 13-39.

Cassar, G. 2007. Money, Money, Money? A Longitudinal Investigation of Entrepreneur Career Reasons, Growth Preferences and Achieved Growth. *Entrepreneurship & Regional Development: An International Journal*, 19(1): 89 - 107.

Cassar, G. 2010. Are Individuals Entering Self-Employment Overly Optimistic? An Empirical Test of Plans and Projections on Nascent Entrepreneur Expectations. *Strategic Management Journal*, 31(8): 822-840.

Chandler, G. N. & Hanks, S. H. 1998. An Examination of the Substitutability of Founders Human and Financial Capital in Emerging Business Ventures. *Journal of Business Venturing*, 13(5): 353-369.

Cho, A. H. 2006. Politics, Values and Social Entrepreneurship: A Critical Appraisal. In J. Mair & J. Robinson & K. Hockerts (Eds.), *Social Entrepreneurship*. New York, NY: Palgrave Macmillan.

Christensen, T. C., Barrett, L. F., Bliss-Moreau, E., Lebo, K., & Kaschub, C. 2003. A Practical Guide to Experience-Sampling Procedures. *Journal of Happiness Studies*, 4(1): 53-78.

Cooper, A. C. & Artz, K. W. 1995. Determinants of Satisfaction for Entrepreneurs. *Journal of Business Venturing*, 10(6): 439-457.

Corbin, J. & Strauss, A. 2008. *Basics of Qualitative Research* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Crawford, J. R. & Henry, J. D. 2004. The Positive and Negative Affect Schedule (Panas): Construct Validity, Measurement Properties and Normative Data in a Large Non-Clinical Sample. *British Journal of Clinical Psychology*, 43(3): 245-265.

Croson, D. C. & Minniti, M. 2012. Slipping the Surly Bonds: The Value of Autonomy in Self-Employment. *Journal of Economic Psychology*, 33(2): 355-365.

Csikszentmihalyi, M. & Larson, R. 1987. Validity and Reliability of the Experience-Sampling Method. *The Journal of Nervous and Mental Disease*, 175(9): 526-536.

Csikszentmihalyi, M. 1991. *Flow*. New York: HarperPerennial.

Davidsson, P. & Wiklund, J. 2001. Levels of Analysis in Entrepreneurship Research: Current Research Practice and Suggestions for the Future. *Entrepreneurship: Theory and Practice*, 25(4): 81(19).

Davidsson, P. & Honig, B. 2003. The Role of Social and Human Capital among Nascent Entrepreneurs. *Journal of Business Venturing*, 18(3): 301-331.

Davidsson, P. 2006. *New Firm Startups*. Northampton, MA: Edward Elgar Pub.

Deci, E. L. & Ryan, R. M. 1985. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Springer.

Deci, E. L. & Ryan, R. M. 2002. *Handbook of Self-Determination Research*. Rochester, NY: Univ of Rochester Pr.

Dees, G. J. 2001. The Meaning of "Social Entrepreneurship" (Original 1998). (December 2, 2009). Retrieved From

Diener, E. 1984. Subjective Well-Being. *Psychological Bulletin*, 95(3): 542-575.

Diener, E., Emmons, R., Larsen, R., & Griffin, S. 1985. The Satisfaction with Life Scale. *Journal of Personality assessment*, 49(1): 71-75.

Diener, E. & Diener, C. 1996. Most People Are Happy. *Psychological Science*, 7(3): 181-185.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. 1999. Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin*, 125(2): 276-302.

Diener, E. 2000. Subjective Well-Being: The Science of Happiness and a Proposal for a National Index. *American Psychologist*, 55(1): 34-43.

Diener, E. (Ed.). 2009. *The Science of Well-Being - the Collected Works of Ed Diener*. New York: Springer.

Diener, E., Lucas, R. E., & Scollon, C. N. 2009a. Beyond the Hedonic Treadmill: Revising the Adaptation Theory of Well-Being, *The Science of Well-Being*: 103-118.

Diener, E., Napa Scollon, C., & Prieto, C.-K. 2009b. Experience Sampling: Promises and Pitfalls, Strength and Weaknesses. In A. C. Michalos & E. Diener & W. Glatzer & T. Moum & M. a. G. Sprangers & J. Vogel & R. Veenhoven (Eds.), *Assessing Well-Being*, Vol. 39: 157-180: Springer Netherlands.

Diener, E., Ng, W., Harter, J., & Arora, R. 2010. Wealth and Happiness across the World: Material Prosperity Predicts Life Evaluation, Whereas Psychosocial Prosperity Predicts Positive Feeling. *Journal of Personality and Social Psychology*, 99(1): 52-61.

Digman, J. M. 1990. Personality Structure: Emergence of the Five-Factor Model. *Annual Review of Psychology*, 41(1): 417.

Dimov, D. 2007. From Opportunity Insight to Opportunity Intention: The Importance of Person-Situation Learning Match. *Entrepreneurship Theory and Practice*, 31(4): 561-583.

Dimov, D. 2011. Grappling with the Unbearable Elusiveness of Entrepreneurial Opportunities. *Entrepreneurship: Theory & Practice*, 35(1): 57-81.

Dockray, S., Grant, N., Stone, A., Kahneman, D., Wardle, J., & Steptoe, A. 2010. A Comparison of Affect Ratings Obtained with Ecological Momentary Assessment and the Day Reconstruction Method. *Social Indicators Research*, 99(2): 269-283.

Dorado, S. 2006. Social Entrepreneurial Ventures: Different Values So Different Process of Creation, No? *Journal of Developmental Entrepreneurship*, 11: 319-343.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. 2007. Grit: Perseverance and Passion for Long-Term Goals. *Journal of Personality & Social Psychology*, 92(6): 1087-1101.

Easterlin, R. A. 2001. Income and Happiness: Towards a Unified Theory. *The Economic Journal*, 111(473): 465-484.

Ebner-Priemer, U. W. & Trull, T. J. 2009. Ecological Momentary Assessment of Mood Disorders and Mood Dysregulation. *Psychological Assessment*, 21(4): 463-475.

Eckhardt, J. T. & Shane, S. A. 2003. Opportunities and Entrepreneurship. *Journal of Management*, 29(3): 333-349.

Edmondson, A. C. & Mcmanus, S. E. 2007. Methodological Fit in Management Field Research. *Academy of Management Review*, 32(4): 1155-1179.

Einhorn, H. J. & Hogarth, R. M. 1981. Behavioral Decision Theory: Processes of Judgement and Choice. *Annual Review of Psychology*, 32(1): 53-88.

Eisenhardt, K. M. 1989. Building Theories from Case Study Research. *The Academy of Management Review*, 14(4): 532-550.

Eisenhardt, K. M. & Graebner, M. E. 2007. Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50(1): 25-32.

Ekman, P. 1992. An Argument for Basic Emotions. *Cognition & Emotion*, 6(3-4): 169-200.

Erdfelder, E. & Buchner, A. 1998. Decomposing the Hindsight Bias: A Multinomial Processing Tree Model for Separating Recollection and Reconstruction in Hindsight. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 24(2): 387-414.

Evans, D. S. & Leighton, L. S. 1989. Some Empirical Aspects of Entrepreneurship. *The American Economic Review*, 79(3): 519-535.

Farrell, T. G., Bashir, Y., Cripps, T., Malik, M., Poloniecki, J., Bennett, E. D., Ward, D. E., & Camm, A. J. 1991. Risk Stratification for Arrhythmic Events in Postinfarction Patients Based on Heart Rate Variability, Ambulatory Electrocardiographic Variables and the Signal-Averaged Electrocardiogram. *Journal of the American College of Cardiology*, 18(3): 687-697.

Foo, M.-D., Uy, M. A., & Baron, R. A. 2009. How Do Feelings Influence Effort? An Empirical Study of Entrepreneurs' Affect and Venture Effort. *Journal of Applied Psychology*, 94(4): 1086-1094.

Forbes, D. P. 2005. Are Some Entrepreneurs More Overconfident Than Others? *Journal of Business Venturing*, 20(5): 623-640.

Fox, E. 2008. *Emotion Science: Cognitive and Neuroscientific Approaches to Understanding Human Emotions*. New York: Palgrave Macmillan.

Francis, D. H. & Sandberg, W. R. 2000. Friendship within Entrepreneurial Teams and Its Association with Team and Venture Performance. *Entrepreneurship: Theory & Practice*, 25(2): 5-25.

Freeman, R. B. 1978. Job Satisfaction as an Economic Variable. *The American Economic Review*, 68(2): 135-141.

Frey, B. S. & Stutzer, A. 2002. What Can Economists Learn from Happiness Research? *Journal of Economic Literature*, 40(2): 402-435.

Frijda, N. H. 1999. Emotions and Hedonic Experience. In D. Kahneman & E. Diener & N. Schwarz (Eds.), *Well-Being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.

Fujita, F., Diener, E., & Sandvik, E. 1991. Gender Differences in Negative Affect and Well-Being: The Case for Emotional Intensity. *Journal of Personality and Social Psychology*, 61(3): 427-434.

Gartner, W. B., Bird, B. J., & Starr, J. A. 1992. Acting as If: Differentiating Entrepreneurial from Organizational Behavior. *Entrepreneurship: Theory & Practice*, 16: 13-31.

Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. 1997. Survival of the Fittest? Entrepreneurial Human Capital and the Persistence of Underperforming Firms. *Administrative Science Quarterly*, 42(4): 750-783.

Green, A. S., Rafaeli, E., Bolger, N., Shrout, P. E., & Reis, H. T. 2006. Paper or Plastic? Data Equivalence in Paper and Electronic Diaries. *Psychological Methods*, 11(1): 87-105.

Gross, J. & John, O. 2003. Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being. *Journal of Personality and Social Psychology*, 85(2): 348-362.

Gustafsson, V. 2006. *Entrepreneurial Decision-Making: Individuals, Tasks and Cognitions*. Northampton, MA: Edward Elgar Publishing.

Hackman, J. R. & Oldham, G. R. 1975. Development of the Job Diagnostic Survey. *Journal of applied psychology*, 60(2): 159.

Hackman, J. R. & Oldham, G. R. 1976. Motivation through the Design of Work: Test of a Theory. *Organizational Behavior and Human Performance*, 16(2): 250-279.

Hamilton, B. H. 2000. Does Entrepreneurship Pay? An Empirical Analysis of the Returns of Self-Employment. *The Journal of Political Economy*, 108(3): 604-631.

Hartog, J., Van Praag, M., & Van Der Sluis, J. 2010. If You Are So Smart, Why Aren't You an Entrepreneur? Returns to Cognitive and Social Ability: Entrepreneurs Versus Employees. *Journal of Economics & Management Strategy*, 19(4): 947-989.

Hmieleski, K. M. & Baron, R. A. 2008. When Does Entrepreneurial Self-Efficacy Enhance Versus Reduce Firm Performance? *Strategic Entrepreneurship Journal*, 2(1): 57-72.

Hmieleski, K. M. & Corbett, A. C. 2008. The Contrasting Interaction Effects of Improvisational Behavior with Entrepreneurial Self-Efficacy on New Venture Performance and Entrepreneur Work Satisfaction. *Journal of Business Venturing*, 23(4): 482-496.

Hmieleski, K. M. & Baron, R. A. 2009. Entrepreneurs' Optimism and New Venture Performance: A Social Cognitive Perspective. *The Academy of Management Journal*, 52(3): 473-488.

Hundley, G. 2001. Why and When Are the Self-Employed More Satisfied with Their Work? *Industrial Relations: A Journal of Economy and Society*, 40(2): 293-316.

Hunter, J. E. 1986. Cognitive Ability, Cognitive Aptitudes, Job Knowledge, and Job Performance. *Journal of Vocational Behavior*, 29(3): 340-362.

Hurst, E. & Pugsley, B. 2010. The Non Pecuniary Benefits of Small Business Ownership, *NBER Summer Institute 2010*. Cambridge, MA.

Ilies, R. & Judge, T. A. 2005. Goal Regulation across Time: The Effects of Feedback and Affect. *Journal of Applied Psychology*, 90(3): 453-467.

Isen, A. M. 1984. Toward Understanding the Role of Affect in Cognition. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of Social Cognition*, Vol. 3. Hillsdale, N.J.: L. Erlbaum Associates.

Judge, T. A. & Ilies, R. 2002. Relationship of Personality to Performance Motivation: A Meta-Analytic Review. *Journal of Applied Psychology*, 87(4): 797-807.

Kahneman, D. & Deaton, A. High Income Improves Evaluation of Life but Not Emotional Well-Being. *Proceedings of the National Academy of Sciences*.

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Kahneman, D. & Thaler, R. H. 1991. Economic Analysis and the Psychology of Utility: Applications to Compensation Policy. *The American Economic Review*, 81(2): 341-346.

Kahneman, D. & Lovallo, D. 1993. Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking. *Management Science*, 39(1): 17-31.

Kahneman, D., Wakker, P. P., & Sarin, R. 1997. Back to Bentham? Explorations of Experienced Utility*. *Quarterly Journal of Economics*, 112(2): 375-405.

Kahneman, D., Diener, E., & Schwarz, N. 1999. *Well-Being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.

Kahneman, D. 2003. Maps of Bounded Rationality: Psychology for Behavioral Economics. *The American Economic Review*, 93(5): 1449-1475.

Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. 2004a. A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method. *Science*, 306(5702): 1776-1780.

Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. 2004b. The Day Reconstruction Method (Drm). Instrument Documentation.

Kahneman, D. 2005. *A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method*: Industrial Relations Section, Dept. of Economics, Princeton University.

Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. 2006. Would You Be Happier If You Were Richer? A Focusing Illusion. *Science*, 312(5782): 1908-1910.

Kahneman, D. & Thaler, R. H. 2006. Anomalies: Utility Maximization and Experienced Utility. *The Journal of Economic Perspectives*, 20(1): 221-234.

Kahneman, D. & Deaton, A. 2010. High Income Improves Evaluation of Life but Not Emotional Well-Being. *Proceedings of the National Academy of Sciences*.

Kanfer, R. & Ackerman, P. L. 1989. Motivation and Cognitive Abilities: An Integrative/Aptitude-Treatment Interaction Approach to Skill Acquisition. *Journal of Applied Psychology*, 74(4): 657-690.

Kanfer, R., Ackerman, P. L., Murtha, T. C., Dugdale, B., & Nelson, L. 1994. Goal Setting, Conditions of Practice, and Task Performance: A Resource Allocation Perspective. *Journal of Applied Psychology*, 79(6): 826.

Kim, H. & Stoner, M. 2008. Burnout and Turnover Intention among Social Workers: Effects of Role Stress, Job Autonomy and Social Support. *Administration in Social Work*, 32(3): 5-25.

Knauth, P., Kiesswetter, E., Ottman, W., Karvonen, M. J., & Rutenfranz, J. 1983. Time-Budget Studies of Policemen in Weekly or Swiftly Rotating Shift Systems. *Applied Ergonomics*, 14(4): 247-252.

Knight, F. 1990. Risk, Uncertainty and Profit (Excerpt from 1921). In M. Casson (Ed.), *Entrepreneurship*. Aldershot: Edward Elgar.

Koellinger, P., Minniti, M., & Schade, C. 2007. "I Think I Can, I Think I Can": Overconfidence and Entrepreneurial Behavior. *Journal of Economic Psychology*, 28(4): 502-527.

Kolvereid, L. 1996. Organizational Employment Versus Self-Employment: Reasons for Career Choice Intentions. *Entrepreneurship: Theory & Practice*, 20(3): 23-31.

Krueger, A. B. & Schkade, D. A. 2008. The Reliability of Subjective Well-Being Measures. *Journal of Public Economics*, 92(8–9): 1833-1845.

Krueger Jr, N. F. 2005. The Cognitive Psychology of Entrepreneurship. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*, Softcover ed.: 105. New York: Springer.

Krueger, N. F., Schulte, W. D., & Stamp, J. 2008. Beyond Intent: Antecedents of Resilience & Precipitating Events for Social Entrepreneurial Intentions And ... Action: SSRN.

Landy, F. J. & Becker, W. S. 1987. Motivation Theory Reconsidered. In L. Cummings & B. M. Staw (Eds.), *Research in Organizational Behavior*, Vol. 9: 1-38. Greenwich, CT: JAI Press Inc.

Lange, T. forthcoming. Job Satisfaction and Self-Employment: Autonomy or Personality? *Small Business Economics*: 1-13.

Larsen, J. T. & Mcgraw, A. P. 2011. Further Evidence for Mixed Emotions. *Journal of Personality and Social Psychology*.

Larsen, R. J. & Diener, E. 1992. Promises and Problems with the Circumplex Model of Emotion.

Larsen, R. J. & Fredrickson, B. L. 1999. Measurement Issues in Emotion Research. In D. Kahneman & E. Diener & N. Schwarz (Eds.), *Well-Being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.

Latham, G. P. & Locke, E. A. 1991. Self-Regulation through Goal Setting. *Organizational Behavior and Human Decision Processes*, 50(2): 212-247.

Lévesque, M., Minniti, M., & Shepherd, D. 2009. Entrepreneurs' Decisions on Timing of Entry: Learning from Participation and from the Experiences of Others. *Entrepreneurship: Theory & Practice*, 33(2): 547-570.

Lewis, M. D. 2005. Bridging Emotion Theory and Neurobiology through Dynamic Systems Modeling. *Behavioral and Brain Sciences*, 28(02): 169-194.

Litt, M. D., Cooney, N. L., & Morse, P. 1998. Ecological Momentary Assessment (Ema) with Treated Alcoholics: Methodological Problems and Potential Solutions. *Health Psychology*, 17(1): 48-52.

Locke, E. A. & Latham, G. P. 2002a. Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey. *American psychologist*, 57(9): 705.

Locke, K. 2001. *Grounded Theory in Management Research*. Thousand Oaks, CA: Sage Publications.

Loher, B. T., Noe, R. A., Moeller, N. L., & Fitzgerald, M. P. 1985. A Meta-Analysis of the Relation of Job Characteristics to Job Satisfaction. *Journal of Applied Psychology*, 70(2): 280-289.

Lord, R. G., Diefendorff, J. M., Schmidt, A. M., & Hall, R. J. 2010. Self-Regulation at Work. *Annual Review of Psychology*, 61(1): 543-568.

Madjar, N., Oldham, G. R., & Pratt, M. G. 2002. There's No Place Like Home? The Contributions of Work and Nonwork Creativity Support to Employees' Creative Performance. *The Academy of Management Journal*, 45(4): 757-767.

March, J. G. 1978. Bounded Rationality, Ambiguity, and the Engineering of Choice. *The Bell Journal of Economics*, 9(2): 587-608.

March, J. G. & Heath, C. 1994. *A Primer on Decision Making: How Decisions Happen*. New York: Free Pr.

Mcclelland, D. 1961. *The Achieving Society*. Princeton, NJ: Van Nostrand.

Millán, J., Hessels, J., Thurik, R., & Aguado, R. forthcoming. Determinants of Job Satisfaction: A European Comparison of Self-Employed and Paid Employees. *Small Business Economics*: 1-20.

Miner, J. B. & Raju, N. S. 2004. Risk Propensity Differences between Managers and Entrepreneurs and between Low- and High-Growth Entrepreneurs: A Reply in a More Conservative Vein. *Journal of Applied Psychology*, 89(1): 3-13.

Mishne, G. 2005. *Experiments with Mood Classification in Blog Posts*. Paper presented at the Proceedings of the 1st Workshop on Stylistic Analysis Of Text For Information Access (Style 2005), Brazil.

Mitchell, R. K., Busenitz, L., Lant, T., Mcdougall, P. P., Morse, E. A., & Smith, J. B. 2002. Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 27(2): 93-104.

Miura, A. & Yamashita, K. 2007. Psychological and Social Influences on Blog Writing: An Online Survey of Blog Authors in Japan. *Journal of Computer-Mediated Communication*, 12(4): 1452-1471.

Moore, B. S. & Isen, A. M. 1990. Affect and Social Behavior. In B. S. Moore & A. M. Isen (Eds.), *Affect and Social Behavior - Studies in Emotion and Social Interaction*. New York: Cambridge University Press.

Morris, M. H., Allen, J. A., Kuratko, D. F., & Brannon, D. 2010. Experiencing Family Business Creation: Differences between Founders, Nonfamily Managers, and Founders of Nonfamily Firms. *Entrepreneurship: Theory & Practice*, 34(6): 1057-1084.

Naber, F. A., Bakermans-Kranenburg, M., Ijzendoorn, M., Swinkels, S. N., Buitelaar, J., Dietz, C., Daalen, E., & Engeland, H. 2008. Play Behavior and Attachment in Toddlers with Autism. *Journal of Autism and Developmental Disorders*, 38(5): 857-866.

Nardi, B. A., Schiano, D. J., & Gumbrecht, M. 2004. Blogging as Social Activity, or, Would You Let 900 Million People Read Your Diary?, *Proceedings of the 2004 ACM conference on Computer supported cooperative work*: 222-231. Chicago, Illinois, USA: ACM.

Nardi, B. A., Schiano, D. J., Gumbrecht, M., & Swartz, L. 2004. Why We Blog. *Commun. ACM*, 47(12): 41-46.

Nelson, D. & Cooper, C. 2007. *Positive Organizational Behavior*: Sage Publications Ltd.

Noorderhaven, N., Thurik, R., Wennekers, S., & Stel, A. V. 2004. The Role of Dissatisfaction and Per Capita Income in Explaining Self-Employment across 15 European Countries. *Entrepreneurship Theory and Practice*, 28(5): 447-466.

Nowlis, V. 1965. Research with the Mood Adjective Check List. In S. S. T. C. E. Izard (Ed.), *Affect, Cognition, and Personality: Empirical Studies*: xii, 464. Oxford, England: Springer.

O'brien, E., Coats, A., Owens, P., Petrie, J., Padfield, P. L., Littler, W. A., De Swiet, M., & Mee, F. 2000. Use and Interpretation of Ambulatory Blood Pressure Monitoring: Recommendations of the British Hypertension Society. *BMJ: British Medical Journal*, 320(7242): 1128.

Oorschot, M., Kwapil, T., Delespaul, P., & Myin-Germeys, I. 2009. Momentary Assessment Research in Psychosis. *Psychological Assessment*, 21(4): 498-505.

Patzelt, H. & Shepherd, D. A. 2011. Negative Emotions of an Entrepreneurial Career: Self-Employment and Regulatory Coping Behaviors. *Journal of Business Venturing*, 26(2): 226-238.

Pavot, W. & Diener, E. 1993. Review of the Satisfaction with Life Scale. *Psychological Assessment*, 5(2): 164-172.

Pearce, D. G. 1988. Tourist Time-Budget. *Annals of Tourism Research*, 15(1): 106-121.

Pennebaker, J. & Francis, M. 1999. *Linguistic Inquiry and Word Count*: Lawrence Erlbaum.

Pohl, R. F. 2007. Ways to Assess Hindsight Bias. *Social Cognition*, 25(1): 14-31.

Reeve, J. 2005. *Understanding Motivation and Emotion* (4 ed.). Hoboken, NJ: John Wiley & Sons.

Rego, A. N., Souto, S., & Cunha, M. P. E. 2009. Does the Need to Belong Moderate the Relationship between Perceptions of Spirit of Camaraderie and Employees' Happiness? *Journal of Occupational Health Psychology*, 14(2): 148-164.

Reynolds, P. & Curtin, R. 2008. Business Creation in the United States: Panel Study of Entrepreneurial Dynamics Ii Initial Assessment. *Foundations and Trends in Entrepreneurship*, 4(3): 155-307.

Robertson, J., Emerson, E., Pinkney, L., Caesar, E., Felce, D., Meek, A., Carr, D., Lowe, K., Knapp, M., Hallam, A., & Maclean Jr, W. E. 2004. Quality and Costs of Community-Based Residential Supports for People with Mental Retardation and Challenging Behavior. *American Journal on Mental Retardation*, 109(4): 332-344.

Russell, J. A. 1980a. A Circumplex Model of Affect. *Journal of Personality & Social Psychology*, 39(6): 1161-1178.

Russell, J. A. 1980b. A Circumplex Model of Affect. *Journal of Personality and Social Psychology*, 39(6): 1161-1178.

Ryan, R. M. & Deci, E. L. 2000. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1): 68-78.

Ryan, R. M. & Deci, E. L. 2001. On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology*, 52(1): 141-166.

Ryff, C. & Singer, B. 2008. Know Thyself and Become What You Are: A Eudaimonic Approach to Psychological Well-Being. *Journal of Happiness Studies*, 9(1): 13-39.

Sarasvathy, S. D. 2001. Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy of Management Review*, 26(2): 243-263.

Sarasvathy, S. D. 2008. *Effectuation: Elements of Entrepreneurial Expertise*. Northampton, MA: Edward Elgar Publishing.

Schimmack, U. 2003. Affect Measurement in Experience Sampling Research. *Journal of Happiness Studies*, 4(1): 79-106.

Schkade, D. A.; French-American Study; http://management.ucsd.edu/faculty/directory/schkade/fa-study/; January 24, 2011.

Schmidt, F. L. 2002. The Role of General Cognitive Ability and Job Performance: Why There Cannot Be a Debate. *Human Performance*, 15(1/2): 187-210.

Schultz, T. 1959. Investment in Man: An Economist's View. *The Social Service Review*, 33(2): 109-117.

Schwartz, J. E. & Stone, A. A. 1998. Strategies for Analyzing Ecological Momentary Assessment Data. *Health Psychology*, 17(1): 6-16.

Schwarz, N. 2007. Retrospective and Concurrent Self-Reports: The Rationale for Real-Time Data Capture. In A. A. Stone & S. Shiffman & A. A. Atienza & L. Nebeling (Eds.), *The Science of Real-Time Data Capture: Self-Reports in Health Research*: 11-26. New York: Oxford University Press, USA.

Seligman, M. E. P. & Csikszentmihalyi, M. 2000. Positive Psychology: An Introduction. *American Psychologist*, 55(1): 5-14.

Seo, M.-G., Barrett, L. F., & Bartunek, J. M. 2004. The Role of Affective Experience in Work Motivation. *The Academy of Management Review*, 29(3): 423-439.

Shane, S. & Venkataraman, S. 2000. The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25: 217-226.

Shane, S. 2003. *A General Theory of Entrepreneurship - the Individual-Opportunity Nexus* (Paperback edition 2004 ed.). Northampton, MA: Edward Elgar Publishing.

Shane, S., Locke, E. A., & Collins, C. J. 2003. Entrepreneurial Motivation. *Human Resource Management Review*, 13(2): 257-279.

Shaver, K. G. & Scott, L. R. 1991. Person, Process, Choice: The Psychology of New Venture Creation. *Entrepreneurship: Theory & Practice*, 16(2 - Winter): 23-45.

Shepherd, D. A. 2003. Learning from Business Failure: Propositions of Grief Recovery for the Self-Employed. *The Academy of Management Review*, 28(2): 318-328.

Shepherd, D. A., Wiklund, J., & Haynie, J. M. 2009. Moving Forward: Balancing the Financial and Emotional Costs of Business Failure. *Journal of Business Venturing*, 24(2): 134-148.

Shiffman, S. & Stone, A. 1998. Introduction to the Special Section: Ecological Momentary Assessment in Health Psychology. *Health Psychology*, 17(1): 3-5.

Shiffman, S., Balabanis, M. H., Paty, J. A., Engberg, J., Gwaltney, C. J., Liu, K. S., Gnys, M., Hickcox, M., & Paton, S. M. 2000. Dynamic Effects of Self-Efficacy on Smoking Lapse and Relapse. *Health Psychology*, 19(4): 315-323.

Shiffman, S., Stone, A. A., & Hufford, M. R. 2008. Ecological Momentary Assessment. *Annual Review of Clinical Psychology*, 4(1): 1-32.

Short, J. C., Moss, T. W., & Lumpkin, G. T. 2009. Research in Social Entrepreneurship: Past Contributions and Future Opportunities. *Strategic Entrepreneurship Journal*, 3(2): 161-194.

Sieck, W. A. & Mcfall, R. M. 1976. Some Determinants of Self-Monitoring Effects. *Journal of Consulting and Clinical Psychology; Journal of Consulting and Clinical Psychology*, 44(6): 958.

Simon, H. A. 1959. Theories of Decision-Making in Economics and Behavioral Science. *The American Economic Review*, 49(3): 253-283.

Simon, H. A. 1964. On the Concept of Organizational Goal. *Administrative Science Quarterly*, 9(1): 1-22.

Simon, H. A. 1979. Rational Decision Making in Business Organizations. *The American Economic Review*, 69(4): 493-513.

Simon, M., Houghton, S. M., & Aquino, K. 2000. Cognitive Biases, Risk Perception, and Venture Formation: How Individuals Decide to Start Companies. *Journal of Business Venturing*, 15(2): 113-134.

Sitkin, S. B. & Pablo, A. L. 1992. Reconceptualizing the Determinants of Risk Behavior. *The Academy of Management Review*, 17(1): 9-38.

Sitkin, S. B. & Weingart, L. R. 1995. Determinants of Risky Decision-Making Behavior: A Test of the Mediating Role of Risk Perceptions and Propensity. *The Academy of Management Journal*, 38(6): 1573-1592.

Slovic, P., Fischhoff, B., & Lichtenstein, S. 1977. Behavioral Decision Theory. *Annual Review of Psychology*, 28(1): 1-39.

Smith, N. R. & Miner, J. B. 1983. Type of Entrepreneur, Type of Firm, and Managerial Motivation: Implications for Organizational Life Cycle Theory. *Strategic Management Journal*, 4(4): 325-340.

Stanford University's Entrepreneurship Corner; Entrepreneurial Skills Learned; http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1503; November 22, 2010.

Stanford University's Entrepreneurship Corner; Larry Page, Google; http://ecorner.stanford.edu/playerPopup.html?groupId=39; November 22, 2010.

Stanley, L. J. 2010. Emotions and Family Business Creation: An Extension and Implications. *Entrepreneurship: Theory & Practice*, 34(6): 1085-1092.

Staw, B. M. & Barsade, S. G. 1993. Affect and Managerial Performance: A Test of the Sadder-but-Wiser Vs. Happier-and-Smarter Hypotheses. *Administrative Science Quarterly*, 38(2): 304-331.

Steers, R. M., Mowday, R. T., & Shapiro, D. L. 2004. Introduction to Special Topic Forum: The Future of Work Motivation Theory. *The Academy of Management Review*, 29(3): 379-387.

Stewart, W. H., Jr. & Roth, P. L. 2001. Risk Propensity Differences between Entrepreneurs and Managers: A Meta-Analytic Review. *Journal of Applied Psychology*, 86(1): 145-153.

Stone, A. A. & Shiffman, S. 1994. Ecological Momentary Assessment (Ema) in Behavorial Medicine. *Annals of Behavioral Medicine*.

Stone, A. A., Shiffman, S. S., & Devries, M. W. 1999. Ecological Moment Assessment. In D. Kahneman & E. Diener & N. Schwarz (Eds.), *Well-Being: The Foundations of Hedonic Psychology*: 26-39. New York: Russell Sage Foundation.

Stone, A. A., Schwartz, J. E., Schwarz, N., Schkade, D., Krueger, A., & Kahneman, D. 2006. A Population Approach to the Study of Emotion: Diurnal Rhythms of a Working Day Examined with the Day Reconstruction Method. *Emotion*, 6(1): 139-149.

Stone, A. A., Shiffman, S., & Atienza, A. 2007a. *The Science of Real-Time Data Capture: Self-Reports in Health Research*: Oxford University Press.

Stone, A. A., Shiffman, S., Atienza, A. A., & Nebeling, L. (Eds.). 2007b. *The Science of Real-Time Data Capture: Self-Reports in Health Research*. New York: Oxford University Press, USA.

Sweeny, K. & Whissell, C. 1984. A Dictionary of Affect in Language: I. Establishment and Preliminary Validation. *Perceptual and Moror Skills*, 59(3): 695-698.

Szalai, A. 1966a. The Multinational Comparative Time Budget Research Project a Venture in International Research Cooperation. *American Behavioral Scientist*, 10(4): 1-31.

Szalai, A. 1966b. Trends in Comparative Time-Budget Research. *American Behavioral Scientist*, 9(9): 3-8.

Takarangi, M. K. T., Garry, M., & Loftus, E. F. 2006. Dear Diary, Is Plastic Better Than Paper? I Can't Remember: Comment on Green, Rafaeli, Bolger, Shrout, and Reis (2006). *Psychological Methods*, 11(1): 119-122.

Tamura, T., Yoshimura, T., Horiuchi, F., Higashi, Y., & Fujimoto, T. 2000. *An Ambulatory Fall Monitor for the Elderly*. Paper presented at the Engineering in Medicine and Biology Society, 2000. Proceedings of the 22nd Annual International Conference of the IEEE.

Taylor, M. P. 1996. Earnings, Independence or Unemployment: Why Become Self-Employed? *Oxford Bulletin of Economics and Statistics*, 58(2): 253-266.

Tennen, H., Affleck, G., Coyne, J. C., Larsen, R. J., & Delongis, A. 2006. Paper and Plastic in Daily Diary Research: Comment on Green, Rafaeli, Bolger, Shrout, and Reis (2006). *Psychological Methods*, 11(1): 112-118.

Townsend, D. M., Busenitz, L. W., & Arthurs, J. D. 2010. To Start or Not to Start: Outcome and Ability Expectations in the Decision to Start a New Venture. *Journal of Business Venturing*, 25(2): 192-202.

Utsch, A., Rauch, A., Rothfuß, R., & Frese, M. 1999. Who Becomes a Small Scale Entrepreneur in a Post-Socialist Environment: On the Differences between Entrepreneurs and Managers in East Germany. *Journal of Small Business Management*, 37(3): 31-42.

Uy, M. A., Foo, M.-D., & Aguinis, H. 2010. Using Experience Sampling Methodology to Advance Entrepreneurship Theory and Research. *Organizational Research Methods*, 13(1): 31-54.

Van De Ven, A. H. 1992. Suggestions for Studying Strategy Process: A Research Note. *Strategic Management Journal*, 13(Special Issue: Strategy Process: Managing Corporate Self-Renewal (Summer, 1992)): 169-191.

Van Gelderen, M. & Jansen, P. 2006. Autonomy as a Start-up Motive. *Journal of Small Business and Enterprise Development*, 13(1): 23-32.

Venkataraman, S. 1997. The Distinctive Domain of Entrepreneurship Research: An Editor's Perspective. In J. A. Katz (Ed.), *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 3: 119-138: Elsevier

Vos, E., Yeh, A. J.-Y., Carter, S., & Tagg, S. 2007. The Happy Story of Small Business Financing. *Journal of Banking & Finance*, 31(9): 2648-2672.

Vroom, V. H. 1964. *Work and Motivation*. New York: Wiley.

Waterman, A. S. 2007. On the Importance of Distinguishing Hedonia and Eudaimonia When Contemplating the Hedonic Treadmill. *American Psychologist*, 62(6): 612-613.

Watson, D., Clark, L. A., & Tellegen, A. 1988a. Development and Validation of Brief Measures of Positive and Negative Affect: The Panas Scales. *Journal of Personality and Social Psychology*, 54(6): 1063-1070.

Watson, D., Clark, L. A., & Tellegen, A. 1988b. Development and Validation of Brief Measures of Positive and Negative Affect: The Panas Scales. *Journal of Personality & Social Psychology*, 54(6): 1063-1070.

Watson, D. & Clark, L. A. 1994. The Panas-X: Manual for the Positive and Negative Affect Schedule-Expanded Form. *Unpublished manuscript, University of Iowa*.

Westhead, P. & Wright, M. 1998. Novice, Portfolio, and Serial Founders: Are They Different? *Journal of Business Venturing*, 13(3): 173-204.

Wiklund, J., Davidsson, P., & Delmar, F. 2003. What Do They Think and Feel About Growth? An Expectancy Value Approach to Small Business Managers' Attitudes toward Growth. *Entrepreneurship Theory and Practice*, 27(3): 247-270.

Xu, H. & Ruef, M. 2004. The Myth of the Risk-Tolerant Entrepreneur. *Strategic Organization*, 2(4): 331-355.

Yin, R. K. 2003. *Case Study Research: Design and Methods* (3 ed.). Thousand Oaks, CA: Sage Publication, Inc.

Zuckerman, M. & Lubin, B. 1985. *Manual for the Maacl-R: The Multiple Affect Adjetive Check List Revised*: Educational and Industrial Testing Service.

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