12-2011

Toward a Theory of Serial Entrepreneurship: Decomposing Entrepreneurial Experience

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Abstract

The focus of this dissertation is to examine the nature of the entrepreneur's prior experience and how it affects entrepreneurs' intentions to reenter entrepreneurship after business exit (i.e. serial entrepreneurship intentions). Drawing on psychology theories, I argue that there is qualitative difference among entrepreneurial experiences and suggest that one's entrepreneurial experience can be decomposed into three factors: financial performance, self-efficacy, and psychological ownership. Those three factors will jointly determine serial entrepreneurship intention. In addition, those three situational factors would interact with the individual's dispositional regulatory focus orientations to affect serial entrepreneurship intention. To this end, I conducted two experimental studies with 175 undergraduate students and 65 entrepreneurs and wrote three essays.

Essay 1 examines the variance in the entrepreneurs' intentions to reenter entrepreneurship by investigating the qualitative difference of entrepreneurial experience (i.e. financial success vs. financial failure) and how this difference affects intention to reenter entrepreneurship. The results show that prior success (failure) experience lowers (increases) the individual's entrepreneurial intention. Moreover, this relationship will be weakened by the individual's entrepreneurial self-efficacy.

Essay 2 looks into intention to reenter from the dispositional perspective to complement Essay 1. Specifically, this essay demonstrates that, in addition to prior entrepreneurial experience, the entrepreneurs' dispositional regulatory focus orientations would also predict their intentions to reenter entrepreneurship after business exit. More interestingly, the dispositional regulatory orientations will interact with the outcome of

prior entrepreneurial experience (i.e. financial success or failure) to affect intention to reenter.

Essay 3 investigates the relationship between the entrepreneur's psychological ownership toward the prior venture and intention to reenter entrepreneurship. The results show that psychological ownership is positively related to intention to reenter and that this relationship will be enhanced by the entrepreneur's dispositional prevention focus orientation.

In sum, this dissertation provides a theoretical framework on how prior entrepreneurial experience shapes intention to reenter entrepreneurship. The results indicate that the financial performance of the prior venture, the entrepreneur's self-efficacy, the entrepreneur's prevention focus orientation, and the entrepreneur's psychological ownership toward the venture would interactively determine the entrepreneur's intention to reenter entrepreneurship.

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DISSERTATION

Submitted in partial fulfillment of the requirements for the
degree of Doctor of Philosophy in Entrepreneurship
in the Graduate School of Syracuse University

December, 2011

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Acknowledgements

I sincerely thank my dissertation committee members, Kris Byron, Mike Haynie, Tom Lumpkin, Dean Shepherd, and Johan Wiklund, for their advice, comments, encouragement, support, and guidance. Special thanks to my advisor, Johan Wiklund, an excellent mentor and a wonderful friend who lead me into the field of research.

I would like to thank my family. My parents in Taiwan, Kung-Chung Hsu and Chen-Fang Chao, have been supporting me to study in the U.S. and bearing the pains of being away from their son. My wife, Michelle Hong, gave up her promising job in Taiwan without hesitation and came with me to the U.S. She also gave us a treasurable daughter, Ashley Hsu, in my second year. Ashley has been one of the important reasons for me to keep hard-working and to cheer up when I was discouraged by the research progress. My family motivated me to finish this dissertation in a timely manner.

Many thanks also to the faculty and colleagues at Syracuse University. Alex McKelvie spent time guiding me through two conference papers. Minet Schindehutte always encouraged me when I encountered work-family conflicts. My Ph.D. cohorts share research ideas, comments, and fun time together. The friendly culture at the Department of Entrepreneurship helped me through the past four years and made the study process enjoyable. I am fortunate to be at Syracuse University to complete my dissertation. This was a blessing from God.

Thank God.

Chapter 1: Introduction

Many entrepreneurs start a new venture after they exit their first one. Steve Jobs founded Pixar in 1986 after he was forced to leave Apple in 1985. Marc Anderson left Netscape Communications in 1999, which he cofounded five years earlier, to start Loudcloud. It appears that something lures entrepreneurs to continue their entrepreneurship careers after they exit a particular venture. They become serial entrepreneurs (i.e. the individuals who started a venture, then exited that venture to start another one [Westhead & Wright, 1998]). This dissertation deals with reasons why some individuals but not others choose to become serial entrepreneurs, focusing specifically on how the nature of the experience (success or failure) influences entrepreneurs' reentry intentions.

Addressing this question may result in significant impact on the existing entrepreneurship literature arguing the positive relationship between past experience and new venture performance (Davidsson & Honig, 2003; Gimeno, Folta, Cooper, & Woo, 1997). Existing research suggests that because people accumulate human capital from past experience (Becker, 1975), the entrepreneur with more experience would perform better than the one with less or no experience. That is, the quantity of experience predicts venture success. However, some experienced entrepreneurs may choose not to reenter entrepreneurship even though they have learned from experience. It is likely that at least some of the ex-entrepreneurs have learned from experience that they do not have sufficient entrepreneurial abilities and deem that they are likely to be more successful at some career other than entrepreneurship. As a consequence, those ex-entrepreneurs may not perform better in subsequent entrepreneurial tasks if they were to undertake another venture. The quantity of experience does not necessarily increase subsequent performance. Without understanding of what drive the entrepreneurs to reenter or shy away from subsequent entrepreneurship, our knowledge about the relationship between past experience and venture performance is not complete.

Purpose of this Study and Research Questions

In this dissertation, I thus propose that the quality, rather than quantity, of entrepreneurial experience would affect entrepreneurs' intentions to reenter entrepreneurship. To this end, the major purpose of this dissertation is to examine the nature of entrepreneurial experience and with what experience the entrepreneurs would become more or less likely to pursue the next business opportunity. I argue that the relationship between prior experience and entrepreneurs' intentions to reenter is relatively complicated because of this qualitative difference. For example, success experience should be different from failure experience, and this difference may affect intention to reenter.

To disentangle the complicated relationship between prior experience and intention to reenter entrepreneurship, I wrote three essays (Chapter 2, 3, and 4), which will be introduced to the audience in the latter section of this chapter. The theoretical framework I propose in this dissertation consists of three important dimensions associated with prior entrepreneurial experiences: entrepreneurial self-efficacy (Essay 1), financial performance (Essay 1 & 2), and psychological ownership (Essay 3). Those three constructs play important roles in social cognitive theory (SCT) (Bandura, 1991), prospect theory (Kahneman & Tversky, 1979), and psychological ownership literature (Pierce, Kostova, & Dirks, 2001). I argue that entrepreneurial experience is a multi-dimensional constructs and propose an overarching framework that depicts how these three dimensions jointly determine entrepreneurs' intentions to reenter. Specifically, the focus of my dissertation is captured in the following research questions:

1. To examine how prior financial performance, entrepreneurs' belief in their ability to perform entrepreneurial tasks, and emotions incurred in prior business experience contribute to entrepreneurs' intentions to engage in serial entrepreneurship.
2. To investigate whether there is a moderating effect in the above relationship.
3. To test whether the direct or moderating relationships examined above would be different for entrepreneurs with prior success and for entrepreneurs with failure experiences.

In addition, two theories, prospect theory (Kahneman & Tversky, 1979) and SCT (Bandura, 1991), are relevant to the investigation into the research question mentioned above. However, those theories develop more or less different predictions of entrepreneur's intentions to reenter entrepreneurship. In the following sections I will first discuss the present gap in the serial entrepreneurship literature, followed by the debate between prospect theory and social cognitive theory.

The Gap in Literature

Central to this dissertation are entrepreneurial experience and serial entrepreneurs. In entrepreneurship literature, entrepreneurs with prior entrepreneurial experience are labeled as habitual entrepreneurs, which refer to the entrepreneurs who have established or purchased two or more business with ownership stake (MacMillan, 1986). This broad definition includes both portfolio entrepreneurs and serial entrepreneurs. Portfolio entrepreneurs are the entrepreneurs who own and operate multiple businesses at the same time. Because they may start up multiple businesses simultaneously, the effect of prior entrepreneurial experience on their attitudes and behaviors may not be significant. On the other hand, serial entrepreneurs refer to the entrepreneurs who first operate one business, then exit that business to start another one (Westhead & Wright, 1998). Because there is a time lag between the first business and the second, it should be expected that prior experience impacts the entrepreneurs' attitudes and behaviors. Thus, the dissertation lends itself well to the domain of serial entrepreneurship as serial entrepreneurs operate and own one business at a time.

Existing studies of serial entrepreneurship oftentimes conceptualize entrepreneurial experience as a proxy for human capital (Gimeno, Folta, Cooper, & Woo, 1997; Davidson & Honig, 2003). These studies typically assume that all entrepreneurial experiences are *qualitatively* identical, assuming that the only difference in entrepreneurial experience relates to the amount of experience (Ucbasaran, Westhead, Wright, & Flores, 2009). True to its human capital heritage, this literature assumes that because people learn from their experiences and because entrepreneurial experience leads to greater entrepreneurial ability, a subsequent entrepreneurial activity becomes relatively more attractive than working in a regular job. However, these studies have not sufficiently considered experience variance in dimensions *other than* human capital. It is fair to say that entrepreneurial experience has been an under-conceptualized and under-specified construct. I suggest that there are substantial *qualitative* differences in entrepreneurial experience. Most importantly, there is a substantial difference between experiencing success versus failure in prior entrepreneurial endeavors. Prior success may increase entrepreneurs' entrepreneurial self-efficacy (ESE) (i.e. individuals' belief in their entrepreneurial ability [Bandura, 1991; Chen, Greene, & Crick, 1998]) and result in an overestimate of the likelihood of success upon subsequent entrepreneurial activities (Stone, 1994). On the other hand, entrepreneurial failure is associated with negative emotions such as anxiety, stress, and grief (Shepherd, 2003), which might lead failed entrepreneurs to shy away from subsequent entrepreneurial activities. Because entrepreneurs' decisions to entry into subsequent entrepreneurship represent planned behaviors and would be severely impacted by intentions (Ajzen, 1991) and because the relationship between entrepreneurs' intentions and their actual behaviors should be fairly strong (Davidsson, 1995), I focus on entrepreneurial intention after prior entrepreneurial experience in this research. As a consequence, I propose that subsequent entrepreneurial intention will be markedly different depending on the success or failure of prior entrepreneurial experience. An implication of these qualitative differences is that not all entrepreneurial experience increases the subsequent entrepreneurial intention. Investigation into the effect of the qualitatively different entrepreneurial experience is missing in the existing literature.

The Debate on Intentions to Reenter

Although it is likely that success and failure would impact entrepreneurs differently, it seems that the predictions of the effect of prior venture outcome on subsequent entrepreneurial intention derived from theories are not consistent. On the one hand, for example, prospect theory suggests that the individuals who perceive their prior ventures as failure (i.e. negatively framing) could become risk-seeking and more likely to pursue risky alternatives (e.g. entrepreneurial activities [Knight, 2002]) because they would like to "break even" (Kahneman & Tversky, 1979; Thaler & Johnson, 1990). On the other hand, SCT argues that prior poor performance will undermine one's intention to pursue a subsequent, similar activity because prior failure undermines his or her self-efficacy (i.e. individual's belief in his or her ability to perform the certain task) (Bandura, 1991). Drawing on the two theories to examine entrepreneurship, we could derive plausibly opposite predictions of entrepreneurial intention following previous entrepreneurial experience. These relationships between prior venture performance and subsequent entrepreneurial intention rooted in SCT and prospect theory can be categorized into a 2x2 matrix illustrated in Table 1.

TABLE 1: Four Possible Outcomes of Prior Entrepreneurial Experience

Prior Experience	Low	High
Success	Work in a regular job (prospect theory)	Serial entrepreneurship (SCT)
Failure	Work in a regular job (SCT)	Serial entrepreneurship (prospect theory)

Subsequent Entrepreneurial Intention

Three Essays

One possible explanation of the opposite predictions derived from prospect theory and SCT is that those theories have boundaries. Hence, one of my ambitions for this dissertation is to identify the boundaries of the theories relevant to the field of entrepreneurship and come up with an overarching framework that can accurately predict entrepreneurial intention to reenter serial entrepreneurship. To this end, I conducted two experimental studies with 175 undergraduate students at Syracuse University and 65 entrepreneurs accessed through the Entrepreneurship Center at Syracuse University and wrote three essays regarding the relationship between prior experience and intention to reenter. The first essay (Chapter 2) aims to reconcile the different predictions of intention to reenter derived from SCT and prospect theory. Data derived from both the experiment with the students and the one with the entrepreneurs were used.

SCT (Bandura, 1986) suggests that human behaviors would be predicted jointly by situational factors and personal factors. While the feedback from prior entrepreneurial experience (i.e. financial performance) serves as a situational factor that affects intention to reenter, this factor may interact with the entrepreneur's personal factor to determine intention to reenter. As such, Essay 2 (Chapter 3) uses data from both experiments to examine how the outcome of prior experience interacts with one of the entrepreneur's personal factor (regulatory focus orientation [Higgins, 1997]) to affect intention to reenter.

The third essay (Chapter 4) looks into the relationship between intention to reenter and the third construct proposed in this dissertation (i.e. psychological ownership).

Ideally, data from both experiments should be also used in this essay. Unfortunately, the manipulation of psychological ownership was not successful in the experiment with students. The mean comparison of manipulation check of psychological ownership indicates that the subjects in the low psychological ownership group do not differ from those in the high psychological ownership group. As a consequence, only data from the experiment with entrepreneurs were used. This inevitably reduces the statistical power in Essay 3 because the sample size of entrepreneurs is small (N=65). A follow-up study with more entrepreneurs beyond this dissertation would be valuable.

General Contribution to Theory

This dissertation makes several contributions to theory. First, previous research on serial entrepreneurship assumes that prior entrepreneurial experience positively influence subsequent entrepreneurship activities such as opportunity discovery, opportunity exploitation, and entrepreneurial intention (Ucbasaran, Westhead, Wright, & Binks, 2003; Davidsson, 1995; Krueger, 1993). Complementing this line of research, this dissertation highlights the difference between success and failure experience (e.g. Essay 1 & 2) and proposes how they elicit different levels of entrepreneurs' intentions to reenter entrepreneurship after business exit.

Second, this dissertation identifies the boundaries of prospect theory and SCT (Essay1). On the one hand, prospect theory argues that risk-seeking attitude is negatively related to subjective outcome of the prior venture. The greater the subjective financial gains (losses) the entrepreneur incurred in his or her prior venture, the less (more) risk-seeking he or she would become. I suggest that this relationship will be moderated by individual's self-efficacy. On the other hand, SCT suggests that self-efficacy would be affected by mastery experience (Wood & Bandura, 1989). I apply SCT to entrepreneurship and argue that although ESE would predict entrepreneurial intention (Chen, Greene, & Crick, 1998), entrepreneurial intention would be governed by prospect theory prediction when ESE is low.

Third, existing research on business exit has largely focused on the ex-entrepreneurs who have failed and looked into under what circumstance the failed entrepreneurs would be more or less likely to reenter entrepreneurship. For instance, Shepherd and his colleagues (2009) suggest that business failure would incur emotional costs and financial costs for the entrepreneurs, which would defer the entrepreneurs' recovery and influence their post-exit attitudes and behaviors. Similarly, Gimeno and his colleague's threshold theory (1997) argues that the entrepreneurs in underperforming ventures are likely to use many psychological factors (e.g. emotions) in addition to financial gains to make the business exit decisions. The dissertation extends this line of research from the domain of business failure to the domain of business success. The results of the three essays show that financial success and psychological factors associated with prior business success would also affect the entrepreneurs at the post-exit stages. Together with the business exit literature, this dissertation demonstrates that financial performance of the prior venture and the entrepreneur's psychological ownership toward the prior venture , which contains the emotional component, would influence intention to reenter both for the entrepreneurs with failure experience and for the ones with success experience.

Fourth, this dissertation sheds new light on serial entrepreneurship literature by integrating personal factors into the existing situational perspective (e.g. influence from prior experience). Built on regulation focus theory (Higgins, 1997), Essay 2 shows that the entrepreneur's prevention focus orientation would demote his or her intention to reenter entrepreneurship after business exit. Most importantly, this relationship will be strengthened by the financial failure of prior entrepreneurial experience. Put differently, the "fit" between the entrepreneur's regulatory focus orientations (e.g. prevention focus) and feedback from the external environment (e.g. financial failure) matters in predicting serial entrepreneurship (e.g. lowest intention to reenter entrepreneurship).

Last but not least, I follow Baron's (2008) assertion that affect would impact entrepreneurship and bring emotion into the proposed model to predict entrepreneurs' intentions to reenter. Compared to employees in organizational settings, entrepreneurs should have a high degree of psychological ownership, which might be a major factor that differentiates entrepreneurs from management workers and employees. The psychological ownership will elicit different types and degrees of emotions depending on the level of success of previous experience. Those elicited emotions are likely to influence individual's attitudes and behaviors. Essay 3 thus extends literature of psychological ownership (Pierce, Kostova, & Dirks, 2001; Pierce, Kostova, & Dirks, 2003) in general organizational settings to investigating entrepreneurs' intention to reenter.

In sum, although social cognitive theory, prospect theory, or literature of psychological ownership alone can be used to predict an entrepreneur's intention to reenter, the conclusions derived from those streams of literature are not aligned well. This dissertation seeks to integrate the three constructs rooted in these three streams of theory and literature and provide an overarching framework that better predicts the entrepreneurs' intentions to engage in serial entrepreneurship

General Contribution to Practice

This dissertation highlights that the intention to reenter of entrepreneurs is greatly influenced by prior success and failure and that the impact is not as simple and direct as suggested by serial entrepreneurship literature. When entrepreneurs experiencing business exit encounter a subsequent business opportunity, their intention to pursue it may not only rely on their skills, ability, knowledge, and resources that they have learned from prior experience (Davidsson & Honig, 2003) but also is contingent on their subjectively perceived financial performance of their prior ventures. The entrepreneurs who seek to co-found a business with a partner entrepreneur should be aware of the difference between their partner's success and failure experiences and that this difference may bias their partner's judgment on the evaluation of the co-founded venture opportunity. Investors should also be made aware that the entrepreneur's decision on the entrepreneurial activity may be affected by the subjective prior success or failure rather than an objective estimation of the likelihood of future success.

Furthermore, I provide a possible explanation to the phenomenon that some entrepreneurs who have failed in the past continue to attempt subsequent start-ups, while others risk-aversely shy away from subsequent business opportunities. I suggest that ESE, subjective prior financial success, and emotions can explain the difference in entrepreneurs' intentions to reenter in the case of prior business failure. Those entrepreneurs should be aware that their intentions to reenter may be affected by subjective financial losses. A substantial financial loss may lead the entrepreneurs to a "gambling" strategy (i.e. pursuing the risky alternative) and an action upon subsequent business opportunities, which has nothing to do with their ability. The attitudes of gambling will bias entrepreneurs' judgment toward over-risky options and undermine subsequent entrepreneurial activities. In addition, those entrepreneurs should be informed that their career decision after business failure may serve as a reflection of their emotions and would deviate from their regular decisions under normal emotions. One approach to deal with this emotional bias is to allow a certain amount of time for entrepreneurs to emotionally recover from failure (Shepherd, Wiklund, & Haynie, 2009).

Structure of the Dissertation

The remainder of the dissertation proceeds as follows. In Chapter 2, I discuss Essay 1, in which the individuals' cognitive self-regulation in response to prior entrepreneurial experience has been examined. Prospect theory (Kahneman & Tversky, 1979) and self-efficacy (Bandura, 1986) serve as the theoretical foundation. Chapter 3 details Essay 2, which examines how the individuals' dispositional factors, interacting with prior entrepreneurial experience, affect intention to reenter. Higgins' (1997) regulatory focus theory has been applied to the investigation. Chapter 4 describes Essay 3. Psychological ownership is introduced, and the interacting relationship of psychological ownership and regulatory focus with intention to reenter is examined. At the end of each chapter, I discuss conclusion specific to each essay. Findings, limitations, and direction for future research are summarized in Chapter 5.

Chapter 2: Essay 1

Introduction

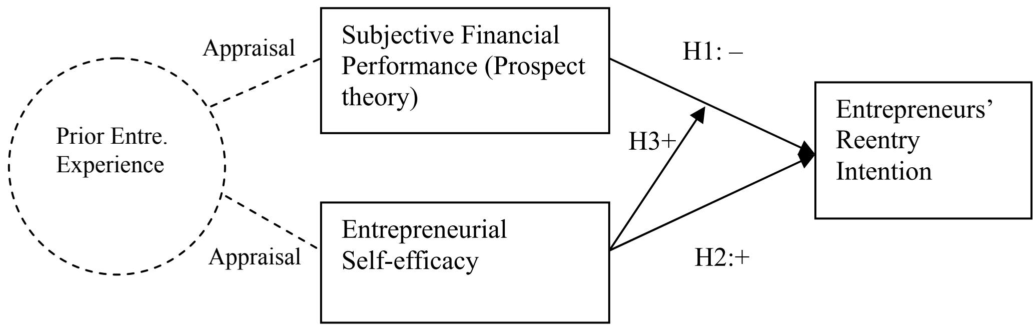
Existing studies of serial entrepreneurs (i.e. the individuals who first operate one business, then exit that business to start another one; they operate and own one business at a time [Wright, Robbie, & Ennew, 1997]) typically assume that all entrepreneurial experiences are *qualitatively* identical, assuming that the only difference in entrepreneurial experience relates to the amount of experience (Ucbasaran, Westhead, Wright, & Flores, 2009). True to its human capital heritage, this literature assumes that because people learn from their experiences and because entrepreneurial experience leads to greater entrepreneurial ability, a subsequent entrepreneurial activity becomes relatively more attractive than working in a regular job. This means the more experiences, the more likely the entrepreneurs would reenter entrepreneurship and become serial entrepreneurs. However, those studies have not sufficiently considered experience variance in the dimensions *other than* human capital. It is fair to say that entrepreneurial experience has been an under-conceptualized and under-specified construct. I suggest that there is a substantial difference between experiencing success versus failure in prior entrepreneurial endeavors. Prior success may increase entrepreneurs' entrepreneurial self-efficacy (i.e. ESE, individuals' belief in their entrepreneurial ability [Bandura, 1991; Chen, Greene, and Crick, 1998]) and result in an overestimate of the likelihood of success upon subsequent entrepreneurial activities (Stone, 1994). On the other hand, entrepreneurial failure may decrease the entrepreneurs ESE, which might make those entrepreneurs shy away from subsequent entrepreneurial activities.

Although it is likely that success and failure would impact entrepreneurs differently, it seems that the theoretical predictions of the effect of prior venture outcome on subsequent entrepreneurial intention are not consistent. On the one hand, for example, prospect theory suggests that the individuals who perceive their prior entrepreneurial experiences as failure (i.e. negative framing) would become risk-seeking and more likely to pursue risky alternatives (e.g. entrepreneurial activities [Knight, 2002]) because they would like to "break even" (Kahneman & Tversky, 1979; Thaler & Johnson, 1990). This is clearly conflicting with social cognitive theory (SCT), which argues that prior poor performance will undermine one's intention to pursue a subsequent, similar activity because prior failure undermines his or her self-efficacy (Bandura, 1991). Those two theories seem to derive opposite predictions of entrepreneurial intention following previous entrepreneurial experience (i.e. intention to reenter entrepreneurship).

One possible explanation of the opposite predictions derived from prospect theory and SCT is that those theories have boundaries. Hence, one of the purposes of this study is to identify the boundaries of the theories relevant to the field of entrepreneurship and to investigate how prior entrepreneurial experience in terms of success of failure affects serial entrepreneurship intention. I choose to focus on entrepreneurial intentions as a proxy of entrepreneurial behaviors because the relationship between entrepreneurs' intentions and their actual behaviors should be fairly strong (Ajzen, 1991; Davidsson, 1995). In doing so, this essay makes several contributions to theory.

First, previous research on serial entrepreneurship assumes that prior entrepreneurial experience positively influence subsequent entrepreneurship activities such as opportunity discovery, opportunity exploitation, and entrepreneurial intention (Ucbasaran, Westhead, Wright, & Binks, 2003; Davidsson, 1995; Krueger, 1993). Complementing this line of research, this research highlights the difference between success and failure experience and proposes a framework depicting how they elicit different levels of entrepreneurs' intentions to reenter entrepreneurship after business exit. Second, existing research on serial entrepreneurship is largely focused on the difference between serial entrepreneurs and others (e.g. portfolio entrepreneurs, novice entrepreneurs, and non-entrepreneurs) (MacMillan, 1986; Ucbasaran, Westhead, & Wright, 2006). The proposed model in this essay sheds new light on this line of research and advances serial entrepreneurship literature by identifying certain circumstances where a novice entrepreneur will or will not become a serial entrepreneur. Lastly, this study identifies the boundaries of prospect theory and SCT. On the one hand, prospect theory argues that risk-seeking attitude is negatively related to subjective prior venture outcome. The greater financial success (failure) the entrepreneurs perceive their ventures as, the less (more) risk-seeking attitude they would incur. I suggest and show that this relationship will be moderated by ESE. On the other hand, SCT suggests that self-efficacy would be affected by mastery experience (Wood & Bandura, 1989). I apply SCT to entrepreneurship and argue that although ESE would predict entrepreneurial intention (Chen, Greene, & Crick, 1998), entrepreneurial intention would be governed by prospect theory prediction when ESE is low. The theoretical model of this essay is shown in Figure 1.

FIGURE 1: Theoretical Model in Essay 1



The remainder of this paper proceeds as follows. I first review prospect theory and SCT and how they can be used to predict intention to reenter. Hypotheses rooted in each theory are proposed. Then I integrate those theories and present the moderating hypothesis that reconciles the different theoretical perspectives to predict intention to reenter. Third, the method section describes the two experiment studies that test the proposed model. Data analyses and results are presented in this section. Finally, I conclude with a discussion of how this article advances our understanding of entrepreneurship. Limitations, future research, and practical implications are also discusses at the end.

Theoretical Development

Prospect Theory

Kahneman & Tversky (1979) argue that individuals tend to be risk-seeking in the domain of financial losses and risk-averse in the domain of financial gains (i.e. the risk-attitude prediction). This is because when individuals are exposed to the domain of gains, they feel that they have more to lose (Sitkin & Pablo, 1992) and thus focus more on the potential future failure than success (Thaler & Johnson, 1990); they become more sensitive to future failure than success and thus behave risk-aversely (Sitkin & Pablo, 1992). On the other hand, individuals who are exposed to the domain of losses would become more sensitive to future gains and thus act risk-seeking in order to "break even" (Kahneman & Tversky, 1979; Thaler & Johnson, 1990).

This risk-attitude prediction in prospect theory was extended to the framing effect in psychology (e.g. Meyerowitz & Chaiken, 1987; Levy, 1994; Kùhberger, 1998). Literature of the framing effect suggested that framing of the situation as gains or losses had significant impact on his or her risky behavior (Sitkin & Pablo, 1992). For instance, Rothman and his colleagues (1993) demonstrated that both the positively (gains) and the negatively (losses) framed messages about the possible results of examination influenced the individuals' intentions to take the skin cancer detection examination. Although researchers studying the framing effect oftentimes imposed positive or negatively frame on their respondents (i.e. provide the subjects the positively or negatively framed messages) and thus the frame was formulated externally (i.e. by the researchers) in those studies, Tversky and Kahneman (1981) argued that the frame one adopted would also be shaped by his or her own interpretation (i.e. formulated internally). Indeed, we were barely told that we were in the gain or loss domain in our daily lives as the respondents were provided the positively or negatively framed messages by the researchers in the existing studies. Rather, we experienced relatively neutral situations that could be either positively or negatively framed, contingent on our own interpretations.

In the context of entrepreneurship, the frame an entrepreneur adopts also depends on his or her interpretation. An entrepreneur who has gained $100,000 may still perceive that he or she is in the loss domain if he or she compares his or her financial gain to another entrepreneur who has gained $1M (Kahneman & Tversky, 1979) or if he or she has lost his or her marriage due to undertaking his or her venture. In other words, entrepreneurs' subjective framing matters in determining their risky behaviors. Below I build on framing literature to discuss how an individual's subjective framing mechanism is shaped.

Literature on the framing effect suggests that the individual's risk-attitude is largely determined by how he or she frames his or her current situation in terms of gains or losses (Kahneman & Tversky, 1984; Slattery & Ganster, 2002). Put differently, the relationship between prior success (failure) and one's subsequent risk-averse (risk-seeking) attitude is predicted to a large degree by one's framing mechanism, which is shaped by two factors, the *good* that the individual possesses and the *reference point* (Levy, 1994; Thaler, 1985). When the good of the individual has more value than that of the reference point does, the individual would frame his or her current situation as in the domain of gains. The survivors of 911, for instance, were likely to frame their situations as in the domain of gains because their lives (the good) were saved, compared to the other individuals (the reference point) who lost their lives. In the entrepreneurship context, I argue that the individuals would use financial gains as the good because their major goals of the business are to create wealth or profits (Goel, 1997; Shane & Venkataraman, 2000). It is likely that the entrepreneur's financial success from prior venture experience to a large degree contribute to his or her framing of the current situation. As such, I use the entrepreneur's prior financial success to examine prospect theory prediction of reentry intention.

In addition to the good (financial success), the selection of the reference point also matters in shaping individual's framing. As is illustrated in Kahneman & Tversky's seminal work (1979), for instance, the entrepreneurs who have failed the business may select their wealth levels before the failure experience as the reference point and thus perceive that they are in the domain of losses (i.e. the negative framing). In the economic downturn, however, the entrepreneurs might compare their financial losses to the financial loss of another failed entrepreneur. If they lost less, they are likely to positively frame their current situations (i.e. as in the domain of gains). Therefore, I suggest that the entrepreneur's *subject* financial gain, contingent on the reference point, rather than the objective monetary gain represents his or her framing (positive vs. negative). That is, prospect theory's prediction of the relationship between prior experience and subsequent entrepreneurial intention is governed by the individual's positive or negative framing mechanism (subjective financial gains or losses). Hence,

Hypothesis 1. The more positively the entrepreneurs frame their current situations in terms of subjective financial success (failure) of their prior ventures, the lower (higher) their subsequent entrepreneurial intentions.

Self-efficacy

The relationship between the nature of prior experience and subsequent entrepreneurial intention can also be examined from the social cognitive perspective

(Bandura, 1986), which informs us that one's self-efficacy is highly influenced by his or her prior experience and can predict his or her subsequent motivation toward the certain task (Wood & Bandura, 1989). It is argued that success in a task would increases one's self-efficacy and thus motivate him or her to perform the similar activity again, while failure would undermine one's self-efficacy and make him or her shy away from performing that activity again (Bandura, 1986; Bandura, 1991).

However, the relationship between the nature of prior experience and self-efficacy is contingent on many other factors (Gist, 1987; Gist & Mitchell, 1992). If the task one has succeeded is considered easy by him- or herself, for instance, his or her self-efficacy may not be increased much. Similarly, if a golf player attributes the cause of his or her failure to external factors such as unfavorable weather, his or her self-efficacy may not be decreased much. Therefore, I suggest that because the relationship between prior experience and self-efficacy depends on many other factors, the individual's subsequent intention is primarily influenced by his or her after-experience self-efficacy. The stronger one's self-efficacy after his or her prior experience, the higher the intention to perform the similar activity again he or she would have.

Self-efficacy literature has been extended to the field of entrepreneurship. Drawing on Bandura's (1991) argument that self-efficacy is a task-specific construct, researchers propose the construct of entrepreneurial self-efficacy (ESE) and refer it to the individuals' belief in their abilities to perform entrepreneurship tasks and activities (Chen, Greene, & Crick, 1998). As such, I would expect that the effect of entrepreneurs' prior experiences on their subsequent entrepreneurial intentions is through their post-exit entrepreneurial self-efficacy. By extension of social cognitive theory (Bandura, 1986; Bandura, 1991; Wood & Bandura, 1989), indeed, many entrepreneurship scholars suggest that individuals' entrepreneurial self-efficacy would influence their intentions toward an entrepreneurship career (Krueger, 1993; Krueger & Dickson, 1994; Zhao, Seibert, & Hills, 2005). Individuals with high post-exit entrepreneurial self-efficacy would believe that they have mastered the knowledge and skills from their prior entrepreneurial experiences and thus perceive subsequent entrepreneurship activities as more feasible and desirable. Therefore,

Hypothesis 2. The higher the entrepreneurs' post-exit ESE, the higher their subsequent entrepreneurial intentions.

The Moderating Effect of Entrepreneurial Self-efficacy

Although an individual's risk-seeking can occur in the domain of losses and risk-averse in the domain of gains, this relationship is limited to the events where risk exists (Kahneman & Tversky, 1979). Put differently, the perceived probability of success must be small to the individual for prospect theory's risk-attitude prediction to hold (Kahneman & Tversky, 1979: 285). Lottery tickets and gambles, where prospect theory's predictions have been shown to hold (Kahneman & Tversky, 1979), are good examples of the occurrences that involve risk to a large degree because the probability of winning is small. Since entrepreneurship has the risk attribute (Lumpkin & Dess, 1996) and the entrepreneurs assume risk (Knight, 2002), prospect theory is especially relevant to entrepreneurship (Baron, 2004; Busenitz, et al., 2003). Indeed, research shows that more than 50% of new ventures failed to survive within five years (Shane, 2008). As a consequence, individuals' risk-attitudes in relation to subsequent entrepreneurship would be predicted by prospect theory's risk-attitude prediction (Hypothesis 1).

However, when perceived risk of the future event decreases, the individuals' risk-attitudes may change and the prospect theory's risk-attitude prediction may no longer hold (Kahneman & Tversky, 1979). According to prospect theory, for instance, people who have won $1,000 dollars in a gamble with a chance to win of 50% would be more likely to take the money and leave the gamble right away because they want to retain what they have gained (Kahneman & Tversky, 1979). If those people have won several rounds of the gamble, however, they may perceive that they have "hot hands" and are predestined to win. As a result, they are likely to continue to the next round of the gamble rather than take the money and leave because their belief in luck ("hot hands") increases the perceived probability of winning the next round of the gamble. This "hot-hand fallacy" has been demonstrated in the studies on gamblers, basketball players, and financial investors (Ayton & Fischer, 2004; Camerer, 1989; Croson & Sundali, 2005; Gilovich, Robert, & Tversky, 1985; Kahneman & Riepe, 1998). To those people who believe that they have "hot hands," prospect theory is not effective to predict their risk-attitudes. In other words, individuals' beliefs in luck decrease their perceived risk of the future event. This makes prospect theory's risk-attitude prediction less likely to hold.

In this essay, I suggest that not only people's beliefs in luck ("hot hands") but also their beliefs in their own abilities (i.e. self-efficacy [Bandura, 1997]) will decrease the perceived risk. In the entrepreneurship context, entrepreneurial self-efficacy will increase people's perceived probability of entrepreneurial success (Krueger, 1993) and thus decrease perceived risk. To the entrepreneurs with strong post-exit entrepreneurial self-efficacy, their self-perceived risk is decreased and the entrepreneurial activity may no longer be risky. As a consequence, the relationship between the subjective financial performance of the prior venture and the entrepreneur's subsequent entrepreneurial intentions predicted by prospect theory becomes more unlikely for the entrepreneurs with stronger post-exit entrepreneurial self-efficacy. Therefore,

Hypothesis 3. Post-exit entrepreneurial self-efficacy will moderate the relationship between subjective financial performance and subsequent entrepreneurial intention. The higher (lower) the post-exit entrepreneurial self-efficacy, the weaker (stronger) the negative relationship between subjective financial performance and subsequent entrepreneurial intention.

Methods

I conducted two experiments, one with students and the other with entrepreneurs, to test the hypotheses. Study 1 employed 209 undergraduate students at Syracuse University in a lab setting. Study 2 is an online experiment with 175 entrepreneurs affiliated with the entrepreneurship center at Syracuse University.

Study 1

Sample and Procedure

6 entrepreneurship classes participated in this study. All the participating students were being asked to research and come up with a feasible business model or business plan as part of the course requirements. At the end of the semester, the 6 classes were invited to the computer lab to complete the anonymous online experiment instruments during the class hours.

Because several factors such as students' existing entrepreneurial intention may affect the dependent variable - intention to reenter, I also recorded those factors in the written survey prior to the lab experiment. To minimize the testing effect (Aronson, Ellsworth, Carlsmith, & Gonzales, 1990), the written survey (Time 1) was given to the subjects two weeks prior to the lab experiment (Time 2). Since both the written survey and the lab experiment were anonymous, the student subjects were asked to leave their dates of birth and last two digits of cell phone numbers on the both questionnaires in order for the experimenter to match their survey and experiment responses. To encourage the subjects to leave the matching information, each class was told that the personal information would be used to randomly draw a winner, who would receive $15 Starbucks gift card, as a token of appreciation for their participation.

In total, 209 students participated in the lab experiment, 175 of whom found matched pre-experiment written survey. Of those 175 responses, 17 who failed manipulation checks were removed from the analysis. Thus, I have the final sample of 158 respondents, among whom 76 are male and 82 are female. 20 of them have prior entrepreneurial experience; 57 are in the nascent entrepreneurial process. 63 students' families own family businesses.

The online experiment instrument contains several sections that include the cover story describing a new venture, the four strategic questions regarding the new venture, the deception message, the manipulations, the dependent variable measure, the manipulation checks, and the post-experiment questionnaire capturing control variables. Each section is detailed below.

Cover Stories

In the computer lab, the students first read the cover story on the computer screen asking them to play a role of an entrepreneur of a new venture. Since the individuals' psychological ownership (Pierce, et al., 2001) toward the venture might affect their attitudes and behaviors after business exit (i.e. loss of psychological ownership) (Avey, Avolio, Crossley, & Luthans, 2009; Belk, 1988; Brown, Lawrence, & Robinson, 2005; Pierce, et al., 2001), I included the manipulation of psychological ownership in the cover story as a control variable. One of the two versions of cover stories, therefore, was given to the subjects to control their psychological ownership toward the venture. Consistent with literature (Pierce, et al., 2001), the three antecedents of psychological ownership -- investment of energy and effort in the target, intimate knowledge of the target, and control over the target – were included in the cover stories, which can be found in Appendix A.

Strategic Questions and Deception

Following the cover story, four strategic dilemma choice questions (which can be found in Appendix B1 & B2) regarding the new venture's competing strategy, marketing strategy, team formation, and financing were given to the subjects on the computer screens. After the subjects' answers, the next computer screen showed a message telling the subjects that their answers were being analyzed and compared to the expert entrepreneurs by a computer program. The subjects also read that the feedback provided on the next computer screen would demonstrate their entrepreneurial ability based on the quality of their answers to the four strategic questions. Those messages serve as deception, and the positive or negative feedback provided on the next computer screen was pre-programmed in accord with the subjects' assigned experiment groups to manipulate the independent variables – entrepreneurial self-efficacy and financial performance – rather than provided based on the quality of the subjects' answers.

Manipulations and Experimental Groups

The deception messages after the strategic questions include the manipulation of financial performance and entrepreneurial self-efficacy. I manipulated the subjects' high (low) entrepreneurial self-efficacy by telling them that their answers showed that they have sufficient (insufficient) entrepreneurial abilities required for venture success. Financial performance was manipulated by informing the subjects that their ventures made money or lost money. Although there is a possible relationship between financial performance and entrepreneurial self-efficacy, self-efficacy literature and attribution theory suggest that this relationship is contingent on internal attribution (Gist & Mitchell, 1992; Silver, Mitchell, & Gist, 1995). This contingency nature has been discussed in the theory section. Hence, I control the internal or external attribution to manipulation financial performance and entrepreneurial self-efficacy independently. In the financial gains and high entrepreneurial self-efficacy groups (the “success” group), the subjects were told that the financial gains and the venture success were due to their strong entrepreneurial ability (internal attribution); in the financial gains and low entrepreneurial self-efficacy groups (the “luck” group) the subjects were told that the financial gains were purely due to a lucky event and had nothing to do with their insufficient entrepreneurial ability (external attribution). In the financial losses and high entrepreneurial self-efficacy groups (the “misfortune” group), the subjects were told that the financial losses were purely due to a misfortunate event and had nothing to do with their strong entrepreneurial ability (external attribution); In the financial losses and low entrepreneurial self-efficacy groups (the “failure” group), the subjects were told that the venture failed because of their insufficient entrepreneurial ability (internal attribution). Hence, Study 1 is a 2 (financial performance) x 2 (entrepreneurial self-efficacy) x 2 (psychological ownership) between-subject design. Thus, I have four experiment groups, where 45 responses are in the success group, 32 are in the luck group, 46 are in the misfortune group, and 35 are in the failure group. The examples of detailed manipulations can be found in Appendix C1 and C2.

Dependent Variable

Liñán and Chen’s (2009) 6-item measure of entrepreneurial intention was adopted and modified as the measure of subsequent entrepreneurial intention to suit the context of this study. The subjects were asked to rate the six statements on 7-point (1 = total disagree; 7 = total agree) Likert scales.

Manipulation Checks and Control Variables

Two types of checks were provided after the dependent variable measure. I asked the subjects to what extent their answers involved the consideration of the outcome of their ventures to check if the subjects did engage in the manipulation scenarios (engagement check). To check whether my manipulations of prior financial performance and entrepreneurial self-efficacy work or not, I asked the subjects to evaluate their personal success and their confidence in their entrepreneurial abilities.

Since literature suggests entrepreneurial intentions are highly correlated across time (Zhao et al., 2005), I thus included as a control variable the subjects' existing entrepreneurial intention, which was measured with Liñán and Chen's (2009) 6-item measure in the written surveys (Time 1). Since psychology literature suggests that positive affect would influence people's motivation (e.g. Erez & Isen, 2002), Lyubomirsky and Lepper's (1999) 4-item measurement scale of positive affect was added to the post-experiment questionnaire in the lab experiment (Time 2) to capture the subjects' post-exit affect as another control variable. Existing literature has found that men have higher entrepreneurial intentions than women do (Gupta, Turban, & Bhawe, 2008). I hence included gender in the model as the third control variable.

Study 2

Sample and Procedure

175 entrepreneurs affiliated with the entrepreneurship center at Syracuse University were identified and invited to participate in the second experiment. The director of the entrepreneurship center sent to each entrepreneur an individual email invitation, which

contained a web link to an online experiment instrument. One month later an email reminder was sent to each entrepreneur to increase the response rate. After all, 65 have completed the online experiment (37.14% response rate). The sample thus includes 45 male and 20 female. 60 of them started up a business before. 62 owned a business before. Among the previous owned businesses, 44 were reported as success, 1 was reported as failure, and 17 reported as neither success nor failure. Most of the respondents are experienced entrepreneurs. 39 respondents are running 1 business, and 21 are running multiple businesses. 25 respondents have an entrepreneur parent. 13 respondents' families own family businesses. The majority of them are in their 50's and have a bachelor's or master's degree.

Cover Stories

A hypothetical high-tech ski helmet business was selected as the cover story. Similar to the first experiment with students, this experiment used the control over the target and intimate knowledge (Pierce et al., 2001) to manipulate the subjects' psychological ownership toward the venture in the cover story as a control variable. In the high psychological ownership groups the subjects were told to imagine that they owned 100% of the venture and had complete knowledge of how the business was operating. They were also given the detailed description of the business and information about how the technology works. In the low psychological ownership groups the subjects were told that they were co-entrepreneurs and owned only 30% of the venture. In addition, they were told that they did not know how the entire business was operating and were given only the brief description of the business. The complete set of the cover stories can be found in

Appendix D.

Manipulations and Independent Variables

The manipulation messages were given immediately after the cover stories. I manipulated the financial performance of the hypothetical ski helmet venture by informing the subjects that the venture made or lost money. The subjects in the financial gain group (N = 43) were told that a company wanted to purchase their helmet business at a great price, and this deal gave them a personal gain of 1 million dollars, which exceeds what they could earn if they were to work in a steady job for 20 years. The subjects in the financial loss groups (N = 22) were told that their venture performed poorly and had to be shut down. This gave the subjects personal losses of 1 million dollars and they would have to work in a steady job for 20 years to recover their loss. The sample manipulation message is as follows:

> "Imagine that after 5 years Fancy Helmets has become very successful. Company ABC now offers to purchase Fancy Helmets at a great price, and you decide to accept the offer. This deal gives you a personal gain of 1 million dollars, which exceeds what you could earn if you were to work in a steady job for 20 years."

I did not provide any information regarding the subjects' entrepreneurial abilities. Instead, entrepreneurial self-efficacy was measured with Zhao et al.'s (2005) 4-item measure on 7-point Likert scales rather than manipulated in this study because the entrepreneurs already had their own entrepreneurial self-efficacy derived from their real-life entrepreneurial experience. It would not be realistic to manipulate the entrepreneurs' entrepreneurial self-efficacy via a single hypothetical scenario.

Dependent Variable

All the existing measurement scales of entrepreneurial intention do not apply to serial entrepreneurship well. I therefore adopted 3 items from Thompson's (2009) ten-item measure of entrepreneurial intent, 2 items from Liñán and Chen's (2009) six-item measure of entrepreneurial intention, and 1 item from Chen et al.'s (1998) five-item measure of entrepreneurial intention and modified them to form my six-item measure of intention to reenter. The measure consists of 6 statements (Cronbach α = .85) on 7-point Likert scales ranging from 1 (total disagree) to 7 (total agree). Factor analysis indicates that the six items mount onto one factor. The complete list of the six items can be found in Appendix E.

Manipulation Check and Control Variables

We asked the subjects on a separate computer screen whether they evaluated their personal success, given the experience with the hypothetical venture, as gains or losses as the manipulation check of financial performance of the venture. Post-exit affect (Lyubomirsky & Lepper, 1999) and gender (Gupta, et al., 2008) were included as control variables, consistent with Study 1. In Study 1 I controlled the student subjects' exiting entrepreneurial intentions because they affect subsequent entrepreneurial intention. In Study 2, I did not do so because it would be inappropriate for us to ask the entrepreneurs the questions regarding entrepreneurial intentions such as how likely they would start up a new venture (they have already started and are actually running it). However, it is likely that some innate individual differences affect the entrepreneurs' intentions to reenter. One way to control the individual differences is to include Higgins' (1997) promotion focus orientation and prevention focus orientation as two control variables because those two types of people react to success, or failure, quite differently (Brockner, Higgins, & Low, 2004) and may have different intentions to reenter after prior success, or failure. Therefore, Higgins et al.'s (2001) 11-item measurement scale of regulatory focus orientations were given in the post-experiment questionnaire to control the entrepreneurs' promotion and prevention focus orientations.

Results and Analysis

Study 1

Mean comparison showed that the manipulations of financial performance and entrepreneurial self-efficacy were effective (Table 2). Hierarchical linear regression was performed to test the hypotheses. The results were presented in Table 3. In Model 1, the control variables together explain 36.5% variance in subsequent entrepreneurial intentions ($p < .001$). The independent variables (financial performance and entrepreneurial self-efficacy) were added in Model 2. R^2=.500 ($p < .01$). Entrepreneurial self-efficacy was positively related to subsequent entrepreneurial intention ($\beta = .368$; $p < .001$). Financial Performance was not significantly related to intention to reenter ($\beta = -.071$; $p > .10$). In Model 3 ($R^2 = .512$, $p < .001$), where the interaction term was added, financial performance became significant ($\beta = -.200$; $p < .05$). This showed that the greater the financial gains, the lower the intention to reenter entrepreneurship. Hypothesis 1 was thus supported. Entrepreneurial self-efficacy is still positively related to intention to reenter ($\beta = .263$; $p < .01$), providing support for Hypothesis 2. The interaction term was also significant ($\beta = .200$; $p < .05$). Entrepreneurial self-efficacy positively moderated the negative relationship between financial performance and intention to reenter. The greater the entrepreneurial self-efficacy, the weaker the relationship between financial performance and intention to reenter is. My Hypothesis 3 was thus supported.

TABLE 2: Mean Comparison of Financial Performance and ESE of Study 1

Variables	N	Mean	Std. Deviation	t-test for equality of means
Financial Performance				
Financial Gains	109	4.92	1.428	-6.057***
Financial Losses	100	3.75	1.351	
Entrepreneurial Self-efficacy				
High	109	5.28	1.017	-4.717***
Low	100	4.40	1.621	

***p < .001

TABLE 3: The Regression Models of Financial Performance and ESE of Study 1

	Standardized Coefficients		
	Model 1	Model 2	Model 3
Control Variables			
Gender	-.073	-.002	.006
Entrepreneurial Intent (T1)	.500**	.514**	.516**
Post-exit Affect (T2)	.258**	.231**	.234**
Main Effects			
Financial Performance		-.071	-.200*
ESE		.368**	.263**
Interaction Effect			
Financial Performance X ESE			.200*
R^2	.365**	.500**	.512**
ΔR^2		.135**	.012*

N = 158; * Coefficient is significant at .05; ** Coefficient is significant at .001

Study 2

Mean comparison analysis indicated that the financial gains and losses groups were significantly different from each other in terms of perceived personal financial success ($p < .001$) (see Table 4). The manipulation of financial performance therefore was successful.

TABLE 4: Mean Comparison of Financial Performance of Study 2

Variables	N	Mean	SD	t-test for equality of means
Financial Performance				
Financial Gains	43	5.53	.984	-5.932***
Financial Losses	22	3.68	1.524	

***p < .001

Since ESE in Study 2 is a continuous variable and financial performance is a binary variable, I centered ESE and created the interaction term of financial performance and the centered ESE to minimize the potential multicollinearity (Cohen, Cohen, West, & Aiken, 2002). Hierarchical linear regression then was performed to test the model. The results were presented in Table 5. In Model 1 all the control variables are included. The independent variables were entered in Model 2; R^2 is .331 ($p < .001$). Entrepreneurial self-efficacy was positively related to subsequent entrepreneurial intention ($\beta = .345$; $p < .001$). In Model 3, R^2 is .340 ($p < .001$). Again, entrepreneurial self-efficacy was positively related to subsequent entrepreneurial intention ($\beta = .521$; $p < .05$). Hypothesis 2 was supported. Contrary to Hypothesis 1, Financial performance was positively related to subsequent entrepreneurial intention in both models (Model 2: $\beta = .231$; $p < .05$; Model 3: $\beta = .238$; $p < .05$). The interaction term was not significant. Hypotheses 1, developed from prospect theory, and the moderating hypothesis (H3), however, were not supported.

TABLE 5: The Regression Models of Financial Performance, ESE, and Intention to Reenter of Study 2

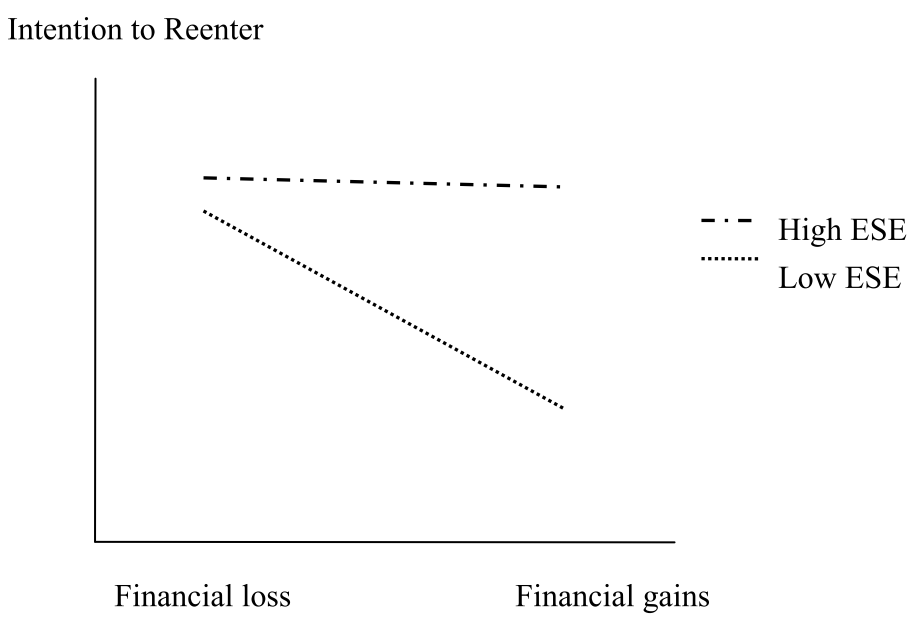
	Standardized Coefficients		
	Model 1	Model 2	Model 3
Control Variables			
Gender	-.320**	-.243*	-.258*
Promotion focus	.053	.045	.079
Prevention focus	-.162	-.145	-.150
Post-exit Affect	.014	-.127	-.164
Main Effects			
Financial Performance		.231**	.238**
ESE		.345**	.521**
Interaction Effect			
Financial Performance X ESE			-.207
R^2	.175**	.331***	.340***
ΔR^2		.156**	.008

N = 65; * Coefficient is significant at .10; ** Coefficient is significant at .05; *** Coefficient is significant at .001

Findings

Hypothesis 2 suggests that the post-exit entrepreneurial self-efficacy is positively related to intention to reenter entrepreneurship. This hypothesis received strong support in both studies. The result is consistent with the existing studies on the relationship between entrepreneurial self-efficacy and entrepreneurial intentions. Essay 1 extends this line of research in the pre-startup stages to the post-exit stages and demonstrates that entrepreneurial self-efficacy associated with prior success or failure (i.e. post-exit entrepreneurial self-efficacy) would have significant impact on entrepreneurs' subsequent entrepreneurial intentions. Hypothesis 1 is supported in Study 1: prior venture performance is negatively related to intention to reenter because individuals become risk-averse when prior venture gains are increased while become risk-seeking when prior venture losses are increased. The moderating hypothesis (Hypothesis 3) is also supported in Study 1, confirming that the effect of prior financial performance on intention to reenter will be weakened by post-exit entrepreneurial self-efficacy. The moderating relationship derived from Study 1 is illustrated in Figure 2. The result shows that subsequent entrepreneurial intention will be governed by prior financial performance, as is suggested by prospect theory, when post-exit entrepreneurial self-efficacy is low, while this relationship will become weaker when post-exit entrepreneurial is increasing.

FIGURE 2: The Moderating Effect of ESE in Study 1



However, Hypothesis 1 (prospect theory) and 3 (the moderating relationship) did not receive support in Study 2. I did not find the negative relationship between prior financial performance and subsequent entrepreneurial intention and the moderating effect of entrepreneurial self-efficacy in Study 2.

One possible reason for the non-significant result of the interacting term was that the sample size was too small (N=65). Indeed, the post-hoc statistical power test for the entrepreneur sample indicated that the statistical power required for the interaction term to be significant was only 0.132 ($\beta = -.207$; $p = .397$). One way to address the issue of the small sample size and the low statistical power was to find out how many entrepreneur responses were needed to derive the same effect size and the significant result as the interaction term had in the student sample. I thus ran the post-hoc statistical power test with the entrepreneur sample with the desired effect size observed in the student sample ($\beta = .200$; $p < .05$) and found that to achieve power of 80% with the alpha level at .05, the minimum number of sample was 43. To achieve power of 90, no less than 55 responses were needed to derive statistical significance for the interaction term. The current sample size (N = 65) exceeds the minimum requirement of the sample. Thus, the non-significant interaction term in the entrepreneur sample should not result from the small size of the entrepreneur sample.

Another possible explanation for this non-finding is that I did not manipulate the entrepreneurs' entrepreneurial self-efficacy in Study 2. As a result, the measured entrepreneurs' entrepreneurial self-efficacy is relatively high, compared with the student subjects ($t = -5.448$; $p < .001$) (Table 6). According to the theoretical model proposed earlier, subsequent entrepreneurial intention is predicted by self-efficacy rather than prospect theory when entrepreneurial self-efficacy is high. Therefore, the non-finding for prospect theory for the entrepreneur subjects actually supports the theoretical model because the entrepreneurs' measured entrepreneurial self-efficacy is significantly higher than the students' manipulated entrepreneurial self-efficacy; thus, prospect theory does not work well for the entrepreneurs.

TABLE 6: Mean Comparison of ESE for Students and Entrepreneurs

Entrepreneurial self-efficacy	N	Mean	SD	t-test for equality of means
Students	158	4.70	1.389	-6.683***
Entrepreneurs	65	5.95	.910	

***p < .001

An interesting finding in Study 2 is that there is a positive rather than negative relationship between financial performance and intention to reenter. This is clearly conflicting with prospect theory. The positive relationship may result from the entrepreneurs' cognitive biases (Baron, 2004). Past success, for instance, may create the optimistic bias (Baron, 2004), which forms the entrepreneur's inflated tendency to believe that past success will be copied, or the affect infusion bias (Baron, 2004), where the entrepreneurs' affective states (e.g. happiness because of prior venture success) strongly influence or distort their subsequent attitudes and behaviors. In a similar manner, past failure also creates such biases that make the entrepreneurs shy away from another entrepreneurship opportunity. Indeed, recent research has shown that cognitive biases are highly related to entrepreneurial intention (Fitzsimmons & Douglas, 2011). To further understand the finding of the positive relationship between financial performance and intention to reenter, future research on cognitive biases and the effect of their interaction with different levels of entrepreneurial self-efficacy on intention to reenter is needed.

Discussions and Conclusion

To date, research on serial entrepreneurship has assumed that prior entrepreneurial experience leads to skills and knowledge which improves performance in future entrepreneurial endeavors. In this paper, I demonstrate that entrepreneurial experience has been treated too simplistic. Most importantly, I decompose the construct of entrepreneurial experience to suggest that certain aspects of this experience increase the incentives and intentions for people to reenter entrepreneurship whereas other aspects of the experience decrease reentry intention. In particular, I show that the entrepreneurs' subjective evaluation of the success or failure of the previous entrepreneurial endeavor influences their reentry intentions.

Prospect theory provides a causal mechanism explaining how subjective prior performance influences reentry intention. Entrepreneurs' subjective prior financial success or failure influences risk-seeking behaviors, which affect the relative attractiveness of the serial entrepreneurship option. Interestingly, this theory suggests that failed entrepreneurs would be more likely to reenter entrepreneurship because they are less risk averse. SCT, however, provided a different causal mechanism, making the opposite empirical prediction. It suggests that failed entrepreneurs will make a much more negative assessment of a future entrepreneurship opportunity and more likely forego it because of a lower self-efficacy. They will be more likely to instead avoid serial entrepreneurship. When I examined these two constructs jointly, I concluded and showed that the prediction of prospect theory appears most relevant for entrepreneurs with low self-efficacy but less relevant for those with high entrepreneurial self-efficacy.

All in all, I feel that the model that I develop in this paper provides an important first step in explaining under what circumstances the entrepreneur will be more or less likely to engage in serial entrepreneurship. Importantly, I argue that not all entrepreneurial experience is the same, but that there are important qualitative differences among various experiences. Grounded in well-established and validated psychological theories, I model some relatively complex relationships between the nature of the entrepreneurial experience in terms of success and failure and the intentions of entrepreneurs to reenter entrepreneurship.

Limitations

A limitation of this study is that I couldn't manipulate the financial performance of the entrepreneurs' real-life businesses in the lab setting. As an alternative, ESE was measured rather than manipulated. Although the results show that the entrepreneur subjects do have variance in their rooted ESE, they have a relatively high level of ESE, compared with the student subjects. As a result, the measurement approach makes it difficult to capture the low levels of ESE and their effect on intention to reenter. A field experiment where the entrepreneur's ESE is lowered by a true life event would be highly valuable and may complement this research. Another limitation is that the experiment method can not investigate all the factors affecting intention to reenter. I acknowledge that other factors may also make a difference in predicting intention to reenter. Since the nature of random assignment of the experiment method has addressed the concerns of those factors, I do not include those factors in the model. Thus, the proposed theoretical model includes only the two constructs of interest – ESE and financial performance.

Potential Extensions of the Model

Although I suggest that entrepreneurial experience is a multi-dimensional construct, I *by no means* argue that entrepreneurial experience comprises *only* ESE and financial performance. In fact, there are many other factors that affect intention to reenter. For example, subjective social capital gains or losses in the prior business could serve as an additional dimension of entrepreneurial experience. Entrepreneurs may perceive their prior businesses as failure, but their social capital may increase. The negative framing of prior financial performance and social capital gains or losses may interactively affect intention to enter serial entrepreneurship. In addition, existing studies have also noted the importance of individual difference across entrepreneurial stages (Baron, 2004; Brockner & Higgins, 2001). When I included regulatory focus orientations in Study 2, for instance, I also found the relationship prevention focus orientation and intention to reenter. Future research on the effect of post-exit social capital and regulatory focus orientations on intention to reenter would add to our understandings of serial entrepreneurship.

As I mentioned in the theory section, individuals' framing is likely to be affected by both the good and the referent point the individual selects. The entrepreneurs' interpretations of their current situations as gains or losses are contingent on both the good and the reference point. In this essay, I propose that because entrepreneurs are to a large extent motivated to make money, they are likely to use monetary returns as the good that shape their framing. However, many entrepreneurs are also motivated by other factors such as autonomy (Croson & Minniti, 2011) and social responsibility (Baron, 2007). As a consequence, they may use those as the goods that shape their framing mechanism. Indeed, framing effect is an extension of prospect theory, and prospect theory's utility function is not limited to the monetary returns. Factors such as autonomy, social capital, social responsibility may also contribute to prospect theory's utility function and shape the entrepreneur's frame. In fact, another possible explanation for the non-finding for the entrepreneur sample may be that some entrepreneurs may not merely use monetary returns as the good to evaluate or frame their current situations. That is, their utility functions may be largely contributed by other factors such as autonomy or social responsibility, which make prospect theory not to hold for the entrepreneur sample. Future research on the framing effect based on different motivational factors in the entrepreneurship context would be worthwhile and complement the present essay.

The other possible avenue for future research is the effect of emotions on business exit and serial entrepreneurship. Entrepreneurship researchers have been made aware that emotions will affect entrepreneurial activities (Baron, 2008). Shepherd et al., (2009) also suggests that emotions matter at the post-exit stages. Since emotion is an overarching construct consisting of various sub-types, there is a need to study the sub-types of emotions, such as grief (Shepherd, 2003), at the post-exit stage. In addition to grief, other types of emotions such as stress and psychological ownership may also make differences in the domain of business exit and serial entrepreneurship (e.g. Rauch et al., 2007;

DeTienne, 2010). More studies on entrepreneurs' emotions may help to answer such questions as how entrepreneurs become serial entrepreneurs and enhance our understandings of business exit and serial entrepreneurs.

Practical Implications

We highlight that the intention to reenter of entrepreneurs is greatly influenced by prior success and failure and that the impact is not as simple and direct as suggested by serial entrepreneurship literature. When entrepreneurs experiencing business exit encounter a subsequent business opportunity, their intention to pursue it may not only rely on their skills, ability, knowledge, and resources that their have learned from prior experience (Davidsson & Honig, 2003) but also is contingent on their subjective financial success or failure. The entrepreneurs who seek to co-found a venture with another entrepreneur should be aware of the difference between their potential partner's prior success and failure experiences and that this difference may bias his or her judgment on the evaluation of the venture opportunity. Investors should also be made aware that the entrepreneur's decision on the entrepreneurial activity may be affected by the his or her subjective prior financial success rather than an objective estimation of the likelihood of future success.

Furthermore, I provide a possible explanation for the phenomenon that some entrepreneurs experiencing present business failure, including both distress sale exit and dissolution exit (Wennberg et al., 2010), continue to undertake subsequent start-up opportunities, while others act risk-aversely upon subsequent business opportunities. I suggest that ESE and the perceived prior financial losses can explain the variance in entrepreneurs' intentions to reenter in the case of prior business failure. Those entrepreneurs should be aware that their intentions to reenter may be affected by subjective financial losses, which result in their adoption of a "gambling" approach in regard to subsequent business opportunities, rather than merely guarded by their ability (ESE). The propensity of gambling will bias entrepreneurs' judgment toward risky options and undermine subsequent entrepreneurial activities.

Chapter 3: Essay 2

Introduction

Research suggests that entrepreneurs' intentions to reenter entrepreneurship after business exit (i.e. intentions to become serial entrepreneurs, who first operate one business and then exit that business to start another one; they operate and own one business at a time [Ucbasaran, Westhead, Wright, & Binks, 2003]) are shaped by their past entrepreneurial experience (Ucbasaran, Westhead, & Wright, 2006). This perspective builds on the notion that intention is highly influenced by situational factors such as information input from past experience (e.g. prior venture). Theory, however, informs us that situational factors alone are not sufficient for predicting human behaviors (Bandura, 1986). In fact, individual factors should interact with situational factors to determine human behaviors (Bandura, 1986). In the domain of entrepreneurship, hence, it is reasonable to posit that individual factors will interact with prior entrepreneurial experience to determine serial entrepreneurship. Not until recently, however, scholars have started to recognize the importance of the role the individual differences play in predicting serial entrepreneurship (e.g. confidence [Hayward, Forster, Sarasvathy, & Frederickson, 2010]), but how those individual factors interact with situational factors (e.g. prior experience) to predict serial entrepreneurship remains in question.

Built on regulatory focus theory (Higgins, 1997), Essay 2 suggests that entrepreneurs' dispositional regulatory focus orientations will interact with the nature of their prior entrepreneurial experiences (i.e. financial success or failure) to determine their subsequent intentions to reenter entrepreneurship. The theory suggests that individuals react to the same performance feedback quite differently (Van-Dijk & Kluger, 2004), and this leads to different levels of motivations as well as different behaviors. While some people are more motivated by past success than failure because past success further enhances their desires to fulfill their achievement needs, others are more motivated by past failure than success because past failure triggers their desires to avoid future failure and maintain their safety needs (Van-Dijk & Kulger, 2004). Applying the regulatory focus lens to entrepreneurship, this research argues that entrepreneurs with different dispositional regulatory focus orientations would react to the outcome of prior venture differently. This elicits their different levels of intentions to reenter entrepreneurship. In doing so, this essay makes several important contributions.

First, I present an alternative theoretical framework for understanding serial entrepreneurs. Existing studies on serial entrepreneurs are largely focused on how prior experience affects serial entrepreneurship activities (e.g. Ucbasaran, Westhead, Wright, & Flores, 2010). The theoretical framework presented in this essay complements those studies and suggests that individual differences (e.g. regulatory focus orientations) would interact with the nature of prior experience (financial success or failure) to determine serial entrepreneurship intentions. Second, entrepreneurship scholars suggest that the regulatory focus theory is highly relevant to entrepreneurship and can be used to explain many entrepreneurship phenomena such as opportunity discovery, opportunity exploitation, and the executives' entrepreneurial intentions in large firms (Baron, 2004; Brockner, et al., 2004; Hmieleski & Baron, 2008; McMullen & Zahra, 2006). This essay takes a step beyond this line of research and show that the entrepreneurs' regulatory focus orientations would also influence their post-exit attitudes such as intentions to reenter entrepreneurship. Third, regulatory focus theorists have started to look into "regulatory fit" – the fit between individuals' regulatory focus orientations and the request from the environments (e.g. Camacho, Higgins, & Luger, 2003; Cesario, Grant, & Higgins, 2004; Freitas, Liberman, & Higgins, 2002). Consistent with this line of research, this essay advances regulatory focus theory by demonstrating that when the feedback from the environment (e.g. venture failure) fits the entrepreneurs' regulatory focus orientations (e.g. prevention focus orientation), those entrepreneurs are more likely to pursue the next venture opportunity.

The remainder of this essay proceeds as follows. I first review regulatory focus theory (Higgins, 1997) and how it may affect entrepreneurship. I then draw on regulatory focus theory to develop the hypotheses regarding the relationship between regulatory focus orientations, prior entrepreneurial experiences, and intentions to reenter, followed by the method section detailing the procedure of the two experimental studies with students and entrepreneurs. The findings are discussed in the result section. Finally, I conclude with the discussion of how this research advances our understanding of serial entrepreneurship.

Theoretical Development

Regulatory Focus Theory

Since entrepreneurial activities are largely influenced by entrepreneurs' affective states (Baron, 2008; Cardon, Wincent, Singh, & Drnovsek, 2009) and the outcome of entrepreneurial activities is likely to induce various emotions (Patzelt & Shepherd, 2011; Shepherd, 2003; Shepherd, Wiklund, & Haynie, 2009), it is likely that entrepreneurs use entrepreneurial activities as a means to pursue their happiness. Traditional wisdom regarding human motivation speaks that individuals pursue happiness by the same means - approaching pleasure and avoiding pains. Regulatory focus theory (Higgins, 1997) advances this view by suggesting that the means the individuals use to pursue happiness are quite different. Some people are apt to pursue happiness via approaching pleasure because doing so fulfills their achievement needs, while others are apt to pursue happiness through avoiding pains because this fulfills their safety needs. For instance, the students with promotion focus orientations would do their best to study extra material to gain satisfied grades as a means to achieve their happiness, while the students with prevention focus orientations would be less likely to study extra materials because they are indifferent to gaining higher grades. Instead, they would do their best to cover required material to avoid unsatisfied grades as a means to achieve their happiness. There is fundamental difference between those two types of individuals in terms of the means they use to pursue their happiness. Higgins (1997) categorizes the former, the individuals focusing more on achievement needs, into the ones with higher promotion focus orientations and the latter, the individuals focusing more on safety needs, into the ones with higher prevention focus orientations.

Scholars have suggested that regulatory focus theory is highly relevant to entrepreneurship (Baron, 2004; Brockner, Higgins, & Low, 2004), partly because the individuals are apt to pursue (promotion-focused people) or avoid (prevention-focused people) certain entrepreneurial tasks as a means to pursue their happiness. Put different, the variances in the individuals' regulatory focus orientations would elicit different levels of intentions to pursue entrepreneurship.

Higgins (1997) defines regulator focus orientations as "chronic personality variable (Higgins & Silberman, 1998: 105)," which may develop during the childhood and adolescent stages but generally stable overtime in the adulthood (Higgins, 1998; Higgins & Silberman, 1998). To further explain the nature of chronicity of regulatory focus, Brockner and Higgins (2001) suggests that regulatory focus has two components, the dispositional component and the situational component. The dispositional regulatory focus is a personality trait, but the situational regulatory focus can be induced by a certain situational cue. For instance, the salespersons who were told by their supervisors that achieving the annual sales goal would gain them money in addition to their salary would be induced to use the situational promotion focus because the potential monetary gain triggers their achievement needs, while those who were told that achieving the sales goal would prevent them from losing money form their salary would be induced to use the situational prevention focus because the potential monetary loss triggers their safety needs. Although both the dispositional component and the situational component *can* elicit one’ s regulatory focus orientations, the effect of the situational regulatory focus may be only temporal and may not last long (Brockner & Higgins, 2001). For instance, the occurrence of 911 may elicit situational prevention focus in Americans, but after a period of time the elicited prevention focus is likely to diminish; the individuals’ dispositional promotion or prevention focus would then dominate their regulatory focus orientations.

This research therefore examines dispositional regulatory focus for three reasons. First, entrepreneurs receive mixed situational cues of promotion focus and prevention focus across entrepreneurial stages. When the entrepreneurs were told by their investor that following the milestones of product development set upfront in the business would be guaranteed to receive the next round of funding, the situational promotion focus thinking was induced (a desire to fulfill the achievement needs rose). If they were told by a customer that sticking to the business plan would make them miss the opportunity of a potential sales order, the situational prevention focus thinking was induced (a desire to fulfill the safety needs rose). As a result, it would be difficult to disentangle the effect of situational promotion focus from that of situational prevention focus elicited by various situational cues. Second, the situational regulatory focus is temporal and may not hold for long time (Brockner & Higgins, 2001). When it comes to the important entrepreneurship decisions such as serial entrepreneurship that requires a significant amount of time for deliberate consideration, the influence from regulatory focus that is elicited by situational cues may become marginal. Third, it is likely that even if in the situation that favors promotion (prevention) focus, some individuals may still use their dispositional prevention (promotion) focus to behave. The scope of this essay, hence, is limited to one's dispositional regulatory focus orientations and their effect on entrepreneurial intention.

Dispositional Regulatory Focus and Entrepreneurial Intention

Many motivation theories suggest that individuals have different motivation needs and that those motivation needs receive different priorities within an individual (e.g. Herzberg, Mausner, & Snyderman, 1993; Maslow, 1970). Consistent with those theories, regulatory focus theory proposes that individuals differ from each other in terms of their preferences for the motivation needs – some people put a higher priority on their needs for growth, development, and achievement, while others give a higher priority to their needs for safety and security (Brockner & Higgins, 2001). As a result, the individuals who are more promotion-focused are more motivated by the tasks that fulfill their growth, development, and achievement needs than by those that satisfy their safety and security needs. Put differently, the individuals with high promotion focus orientations would be primarily driven by their needs for achievement. Indeed, research has shown that promotion focus orientations are positively related to achievement motivations (Higgins & Spiegel, 2004). Since entrepreneurship includes many tasks that fulfill the individuals' needs for achievement (McClelland, 1965; Johnson, 1990) and research has shown that individuals with higher achievement needs are more likely to enter entrepreneurship (McClelland, 1965), therefore,

Hypothesis 1. Individuals' dispositional promotion orientations are positively related to their entrepreneurial intentions.

On the flip side, the individuals with high prevention focus orientations put more emphasis on their safety and security needs. When confronting a situation that involves the conflict between different orders of motivation needs (e.g. achievement needs vs. safety needs), the prevention-focused individuals put their safety and security needs first. Although entrepreneurship includes tasks that can fulfill individuals' achievement needs, it also contains risk (Knight, 2002) that hinder the safety and security needs. Hence, the prevention-focused individuals may be more sensitive to the risky aspects of entrepreneurship than the achievement aspect and shy away from entrepreneurship. Therefore,

Hypothesis 2. Individuals' dispositional prevention focus orientations are negatively related to their entrepreneurial intentions.

Although I argue that promotion focus promotes while prevention focus demotes entrepreneurial intentions, I *by no means* suggest that the individuals with higher prevention focus orientations will not enter entrepreneurship. I acknowledge that intention is highly related to behavior (Ajzen, 1991), and this relationship is contingent on many other variables such as locus of control and self-efficacy (Gist & Mitchell, 1992). For instance, an individual with a strong prevention focus orientation and high entrepreneurial self-efficacy may still choose to enter entrepreneurship. In addition, regulatory focus orientations are a two-factor system (Higgins, et al., 2001; Wu, McMullen, Neubert, & Yi, 2008); promotion focus and prevention focus are not mutually exclusive. It is completely possible that an individual with a high level of promotion focus orientation also has a high level of prevention focus orientation. That individual, hence, may enter entrepreneurship because of his or her high dispositional promotion focus orientation.

Regulatory Focus, Prior Experience, and Intention to Reenter

Although I posit that regulatory focus orientations are highly related to entrepreneurial intentions, recent studies on regulatory focus theory have demonstrated that the interaction between regulatory focus orientations and the external environment highly influence individuals' attitudes and behaviors (Freitas, Liberman, & Higgins, 2002; Cesario, Grant, & Higgins, 2004; Camacho, Higgins, & Luger, 2003). This line of research suggests that an individual's motivation and performance would be better predicted when there is a fit between individuals' regulatory focus orientations and the demands from the environment ("regulatory fit"). For instance, the organizational environment that fosters promotion focus is the most effective for the promotion-focused individuals, while the organizational environment that utilizes the prevention focus strategies is the most effective for the prevention-focused individuals. In the entrepreneurship context, because the nature of prior entrepreneurial experiences (i.e. success or failure) would have significant impact on the entrepreneurs' cognitions and emotions (Shepherd, 2003; Shepherd, Wiklund, & Haynie, 2009), it may serve as an important situational factor that interacts with the entrepreneurs' regulatory focus orientations to determine their subsequent intentions to reenter entrepreneurship.

Entrepreneur's past experience highly influences their subsequent intentions to reenter entrepreneurship (e.g. Ucbasaran, Westhead, & Wright, 2006). Past research on the relationship between experience and entrepreneurial intention was largely built on human capital theory (Becker, 1975) and suggests that because entrepreneurs learn human capital from experience, their entrepreneurial intention will be enhanced (Davidsson & Honig, 2003; Fitzsimmons & Douglas, 2011). Extending this human capital perspective, some scholars propose that learning, either from success or from failure, increases self-efficacy (Gist & Mitchell, 1992) and results in an increase in entrepreneurial intention (Boyd & Vozikis, 1994; Chen, et al., 1998; Zhao, et al., 2005). Other scholars suggest that while past success fosters self-efficacy, failure undermines it (Bandura, 1986) because people may learn about their low ability (i.e. low self-efficacy) from failure experience. As a result, prior failure would result in an individual's low intention to perform the similar task again (e.g. serial entrepreneurship). In sum, previous research shows that some individuals would try again while others would rather quit after prior failure (Van-Dijk & Kluger, 2004). It seems that a fundamental difference exists among the individuals' reactions to prior experience. I argue that this fundamental difference lies in individuals' regulatory focus orientations.

Individuals' with different regulatory focus orientations may respond to prior experience in different ways. As discussed earlier, undertaking entrepreneurial activities may bring the feelings of achievement to the individuals (Johnson, 1990) and are thus more attractive to the individuals with higher promotion focus orientations. This should be also true to the entrepreneurs at the post-exit stages. The attractiveness of the subsequent entrepreneurial activities, however, is likely to be changed because the nature (e.g. financial success or failure) of prior experience may bring in the different levels of achievement feelings to the entrepreneurs.

For instance, past success would lift the outcome expectancies (i.e. one's belief that effort will result in a higher level of venture performance) (Vroom, 1964) of the entrepreneurs; the greater the past success, the greater the subsequent outcome expectancies. This makes the entrepreneurs perceive a higher likelihood of the subsequent business success and the potential rewards as more attainable. Because the entrepreneurs with promotion focus orientations have an inner desire for achievement, the subsequent entrepreneurial opportunity thus becomes a more attractive option for them to satisfy their achievement needs when the expectancy increases and future venture success becomes more attainable. As a result, the attractiveness of subsequent entrepreneurial opportunities would be increased for the promotion-focused entrepreneurs when they experienced venture success. Therefore,

Hypothesis 3. Prior financial success (failure) moderates the relationship between dispositional promotion focus orientation and intention to reenter in such a way that the greater prior financial success (failure) the stronger (weaker) the positive relationship between dispositional promotion focus orientation and intention to reenter.

In contrast, the entrepreneurs with higher prevention focus orientations are relatively indifferent to past success and the increased expectancies of future success because they are primarily driven by their safety needs rather than achievement needs (Brockner & Higgins, 2001). Those entrepreneurs are more sensitive to punishment than rewards (Van-Dijk & Kluger, 2003); they are more vigilant to risk (Brockner & Higgins, 2001; Crowe & Higgins, 1997). As mentioned earlier, entrepreneurship includes tasks that contain risk (Knight, 2002). The entrepreneurs with higher prevention focus orientations would be shy away from entrepreneurship to avoid risk and potential punishment.

I argue that this relationship would be strengthened by prior business failure. This is because the entrepreneurs' outcome expectancies of the subsequent entrepreneurial opportunities would be decreased by prior failure (Vroom, 1964). The entrepreneurs with prior failure experience may learn that entrepreneurship is not an easy task and that the likelihood of success would be marginal and thus perceive the subsequent entrepreneurial opportunities even riskier. Because the entrepreneurs with prevention focus orientations have an inner desire to avoid risk, the outcome expectancy decreased by prior failure would make the subsequent entrepreneurial opportunity more unattractive and make maintaining the status quo more attractive to those entrepreneurs. As a result, the attractiveness of reentering entrepreneurship would be decreased by prior failure for the prevention-focused entrepreneurs. Put differently,

Hypothesis 4. Prior financial success (failure) moderates the relationship between dispositional prevention focus orientation and intention to reenter in such a way that the greater prior financial success (failure), the weaker (stronger) the negative relationship between dispositional prevention focus orientation and intention to reenter entrepreneurship.

Methods

Two studies were conducted to test the proposed hypotheses. Study 1 is a written survey with 175 undergraduate students at Syracuse University to examine the relationship between regulatory focus orientation and entrepreneurial intention. Study 2 is an online experiment with 65 entrepreneurs affiliated with the entrepreneurship center at Syracuse University to investigate the relationship of regulatory focus orientation with intention to reenter entrepreneurship.

Study 1

Sample

6 entrepreneurship classes participated in this study. All the participating students were being asked to research and come up with a sound, profitable, and feasible business model or business plan as part of the course requirements. In other words, they were learning entrepreneurial experience from the entrepreneurship courses. At the end of the semester, the 6 classes, which included 209 students, were invited to participate in the study. At last 175 students completed the questionnaires (83.7% successful rate). In the final sample, 80 students majored in the business related disciplines; 87 are male and 88 are female; 24 of them have prior entrepreneurial experience; 63 are in the nascent entrepreneurial process; 72 students' families own family businesses.

Independent Variables

Brockner, Higgins, and Low (2004) suggest that an individual's regulatory focus orientation contains two antecedents: regulatory focus pride and regulatory focus strength. The former refers to the extent to which people think they can succeed in using a particular orientation; the latter refers to the extent to which that particular orientation is meaningful and salient to them. It is entirely possible that one has high promotion pride (they think that they can succeed in using the promotion focus orientation) and low promotion strength (they don't think that the promotion focus orientation is important). Brockner, Higgins, and Low (2004) argue that both regulatory focus pride and strength would influence one's regulatory focus orientation and affect various entrepreneurial behaviors. In this essay I thus choose to use regulatory focus pride as the proxy of an individual's regulatory focus orientation because research has shown one's regulatory focus pride is relatively stable across time and thus more appropriate to represent one's dispositional, chronic regulatory focus orientation. Higgins et al. (2001), for instance, tested their eleven-item Regulatory Focus Questionnaire (RFQ) with 71 undergraduate students and found the high correlation (0.79, $p<.0001$) between RFQ Promotion Scale taken two months before and after and also the high correlation (0.81, $p<.0001$) between RFQ Prevention Scale taken two months before and after. Therefore, RFQ was used to capture the respondents' promotion pride and prevention pride in this study.

Dependent Variable

Liñán and Chen's (2009) 6-item measure of entrepreneurial intention was used as the measure of entrepreneurial intention. The subjects were asked to rate the six statements on 7-point (1 = total disagree; 7 = total agree) Likert scales.

Control Variables

I included the students' entrepreneurial self-efficacy and family business experience as the control variables because those two constructs may also contribute to entrepreneurial intention (Chen, Greene, & Crick, 1998; Zhao et al., 2005). Entrepreneurial self-efficacy was captured in the definition question, “How confident would you be in your capability of successfully performing the various tasks of an entrepreneur (Chen, Greene, & Crick, 1998)?” Family business experience was measure by asking the students “Does your family own a family business?”

Study 2

Sample and Procedure

Study 2 is an online experiment with the entrepreneurs, where the financial performance of a hypothetical venture is manipulated. I also manipulate the subjects’ emotional attachment to the hypothetical venture because psychology theories suggest that the emotional attachment to the possession would highly influence the individuals’ decision-making, emotions, attitudes, and behaviors (Brockner, 1992; Knetsch, 1989; Pierce, et al., 2001). In the entrepreneurship context, it is likely that the entrepreneurs’ emotional attachments to their prior business would affect their subsequent intention to reenter entrepreneurship. I therefore control the subjects’ emotional attachment (i.e psychological ownership [Pierce et al., 2001]) to the hypothetical venture. As a result, Study 2 is a 2 (financial performance) x 2 (psychological ownership) between-subject design, where psychological ownership serves as a control variable.

175 entrepreneurs affiliated with the entrepreneurship center at Syracuse University were identified and invited to participate in this study. The director of the

entrepreneurship center sent to each entrepreneur an individual email invitation, which contained a web link to an online experiment instrument. One month later an individualized email reminder was sent to each entrepreneur to increase the response rate. After all, 65 have completed the online experiment (37.14% response rate). One respondent who has never started a business, has never owned a business, and is not currently running a business is removed from the sample because he or she is not considered an entrepreneur in this research. The sample thus includes 45 male and 19 female. 60 (93.8%) of them started up a business before. 62 (96.9%) owned a business before. Among the previous owned businesses, 44 were reported as success, 1 was reported as failure, and 17 reported as neither success nor failure. Most of the respondents are experienced entrepreneurs. 39 respondents are running 1 business, and 21 are running multiple businesses. 25 respondents have an entrepreneur parent. 13 respondents' families own family businesses. The majority of them are in their 50's and have a bachelor's or master's degree.

Cover Stories, Manipulations, and Individual Variables

A hypothetical high-tech ski helmet business was selected as the cover story. I used the control over the target and intimate knowledge (Pierce, Kostova, & Dirks, 2001) to manipulate the subjects' psychological ownership toward the venture in the cover story as a control variable. In the high psychological ownership group the subjects were told to imagine that they owned 100% of the venture and had complete knowledge of how the business was operating. They were also given the detailed description of the business and information about how the technology works. In the low psychological ownership group the subjects were told that they were co-entrepreneurs and owned only 30% of the venture. In addition, they were told that they did not know how the entire business was operating and were given only the brief description of the business. The examples of the cover stories can be found in Appendices.

I manipulated financial performance by informing the subjects that their ventures made or lost money. The subjects in the financial gain groups were told that a company wanted to purchase their helmet business at a great price, and this deal gave them a personal gain of 1 million dollars, which exceeds what they could earn if they were to work in a steady job for 20 years. The subjects in the financial loss groups were told that their venture performed poorly and had to be shut down. This gave the subjects personal losses of 1 million dollars and they would have to work in a steady job for 20 years to recover their loss. I did not provide any information regarding the subjects' entrepreneurial abilities. Similar to Study 1, Higgins and his colleagues' (2001) RFQ was included in the post-experiment questionnaire to capture the entrepreneurs' dispositional regulatory focus orientations.

Dependent Variable

All the existing measurement scales of entrepreneurial intention do not apply to serial entrepreneurship (intention to reenter) well. I therefore adopted 3 items from Thompson's (2009) ten-item measure of entrepreneurial intent, 2 items from Liñán and Chen's (2009) six-item measure of entrepreneurial intention, and 1 item from Chen, Greene, and Crick's (1998) five-item measure of entrepreneurial intention and modified them to form my six-item measure of intention to reenter. The measure consists of 6 statements ("I would set up another company in the future," "I will never search for business start-up opportunities" [reverse-coded], "I will have no plans to launch another business of any type" [reverse-coded], "My professional goal is to be an entrepreneur," "I will make every effort to start and run another company," and "I will set up another business of some type very soon") on 7-point Likert scales ranging from 1 (total disagree) to 7 (total agree) (Cronbach α = .85).

Manipulation Checks

I asked the subjects on a separate computer screen (a) whether they were told that they made money from their ventures as the direct manipulation check, (b) whether their answers involved the consideration of the outcome of their ventures as the engagement check, and (c) whether they evaluated their personal success as gains or losses as the manipulation check of financial performance of the venture.

Control Variable

Similar to Study 1, I included the students' entrepreneurial self-efficacy and family business experience in the control variables. Zhao, Seibert, and Hills' (2005) four-item measure of ESE was employed to capture entrepreneurial self-efficacy of the entrepreneurs.

Results and Analysis

Study 1

Descriptive statistics and the bivariate correlations were presented in Table 7. The correlation between promotion pride and prevention pride was modest (r = .28, p < .001). This was consistent with existing studies showing that there was no or modest correlation between promotion pride and prevention pride (Higgins, et al., 2001). Table 8 showed the results of linear regression. The coefficient of prevention focus was significant (ß = -.193, p < .01). There was a negative relationship between the individuals' prevention focus orientations and their entrepreneurial intentions, supporting Hypothesis 2. The coefficient of promotion focus, however, was not significant. Hypothesis 1 did not receive support.

TABLE 7: Descriptive Statistics and Bivariate Correlations of Study 1

			r			
	Mean	*SD*	1	2	3	4
1. Promotion Focus	31.01	4.585	1			
2. Prevention Focus	22.02	5.512	.277*	1		
3. Entrepreneurial	4.00	1.073	.121	-.15	1	
4. Family Business	1.59	.494	.081	-.04	-.13	1

N=175; *: Correlation is significant at the 0.05 level

TABLE 8: Regression Model of Regulatory Focus of Study 1

	Standardized Coefficients	
	Base Model	Full Model
Control Variables		
Entrepreneurial Self-efficacy	.381**	.351**
Family Business	-.246**	-.254**
Regulatory Focus Orientation		
Promotion Focus		-.027
Prevention Focus		-.193**
R^2	.230**	.27**

N=175; ** Coefficient is significant at the 0.01 level

Study 2

Three respondents who failed the manipulation check questions were excluded from statistical analysis (N = 62). I used hierarchical linear regression to test Hypothesis 3, 4, and 5. The results were shown in Table 9.

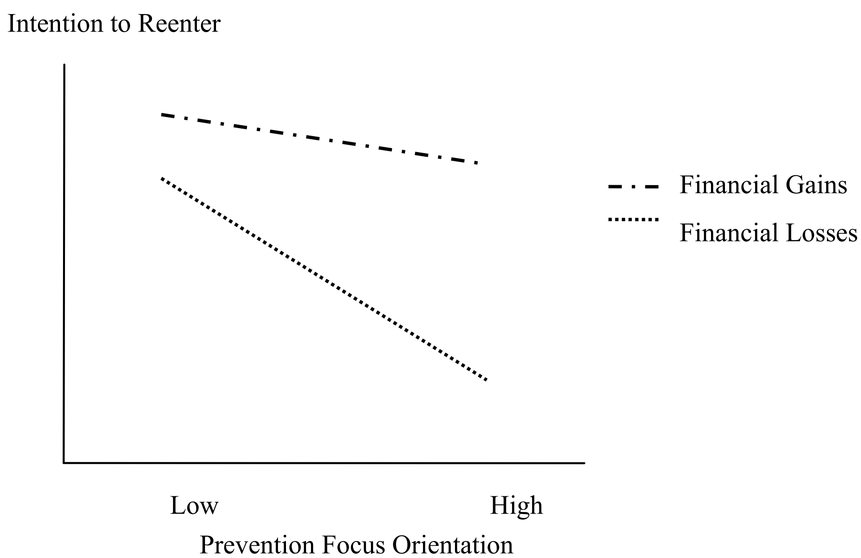
TABLE 9: Regression Models of Regulatory Focus of Study 2

		Standardized Coefficients		
		Base Model	Model 1	Model 2
Control Variables				
Entrepreneurial Self-efficacy	.459***	.396**	.426**	.422**
Family Business	.012	-.085	-.101	-.110
Main Effects				
Financial Performance		.163	.200	.201
Promotion Focus		-.082	-.060	-.126
Prevention Focus		-.291*	-.664**	-.660**
Interaction Effects				
Prevention X Perf.			.439*	.436*
Promotion X Perf.				.080
R^2	.212**	.295**	.345**	.347**
ΔR^2		.083	.050*	.002

N = 62; *** Coefficient is significant at the 0.001 level; ** Coefficient is significant at the 0.005 level; * Coefficient is significant at the 0.05 level

Promotion focus and prevention focus orientations were centered and entered to all models. In the base model, where control variables, promotion pride, and prevention pride were included, prevention focus orientation was negatively related to intention to reenter (ß = -.291, $p < .05$). The entrepreneurs with stronger prevention focus orientations were more reluctant to reentering entrepreneurship. In Model 1, furthermore, the interaction term of prevention focus and financial performance was significant (ß = .439, $p < .05$). Financial success positively moderated the negative relationship between prevention focus and intention to reenter. In other words, the greater the prior financial gains (losses), the weaker (stronger) the negative relationship between prevention focus and intention to reenter. Hypothesis 4 was thus supported. The moderating relationship was illustrated in Figure 3. I did not find the relationship between promotion focus and intention to reenter (Hypothesis 1) because the coefficient was not significant (ß = -.082, $p > .10$). In addition, the moderating effect of financial success is also not found (ß = .080, $p > .10$). Hypothesis 1 and 3 are thus not supported. Promotion focus, prevention focus, entrepreneurial self-efficacy, and family business together explained about 30% of the variance in the dependent variable ($R^2 = .295$, $p < .005$).

FIGURE 3: The Moderating Effect of Financial Performance



Findings

The results of Study 1 and Study 2 support the hypotheses regarding prevention focus orientation. The risk of the entrepreneurial task, which motivates the entrepreneurs to shy away from entrepreneurship, is more salient than the potential reward to the prevention-focused individuals because those people have higher needs for safety and security than needs for achievement. As a result, the entrepreneurs with higher prevention focus orientations are less likely to enter or reenter entrepreneurship. This relationship, in addition, would become strengthened when the entrepreneurs experienced business failure (financial losses) because the prior financial losses would lower the outcome expectancies of the subsequent entrepreneurial opportunity and thus make the risky aspect of the subsequent entrepreneurial opportunity even more salient to the entrepreneur.

On the other hand, I did not find support for the hypotheses regarding promotion focus orientations in both studies. This is especially interesting because this shows that the promotion focused people are not necessarily motivated by the potential rewards and achievement of the entrepreneurial task. One possible explanation is that there are other career tasks that also involve achievement feelings and thus motivate the promotion-focused individuals. For example, becoming a CEO of a public company may bring more achievement feelings to an individual than does becoming an entrepreneur. Indeed, the attractiveness of other career opportunities (McClelland, 1965) would also influence the individuals' intentions to enter entrepreneurship. Compared to entrepreneurship, some other career opportunities may bring more achievement feelings and satisfy the achievement needs of a promotion focused individual. This is especially true for undergraduate students with different majors and career preferences. Students with the accounting major may deem a CPA as the job that can bring them much achievement feelings, while students with the entrepreneurship major may perceive entrepreneurship as the job that brings much achievement feelings. This may result in the non-findings of the hypotheses as to promotion focus orientations. Evidence supporting this argument can also be found in an existing study demonstrating that the entrepreneurs and the individuals in other occupations do not differ statistically in their dispositional regulatory focus orientations (McMullen & Shepherd, 2002), partly because those people perceive different levels of achievement feelings in difference careers.

Another possible explanation lies in the antecedents of regulatory focus orientations. As I mentioned in the method section, regulatory focus orientation contains two antecedents, pride and strength (Brockner, Higgins, & Low, 2004). In this research I use regulatory focus pride as the proxy of regulatory focus orientation because it is stable across time and appropriate to represent dispositional, chronic regulatory focus orientation. According to regulatory focus theory, however, regulatory strength is also likely to contribute to entrepreneurial intention. Brockner, Higgins, and Low (2004) suggest that an individual may have high promotion pride but low promotion strength (he or she sees him-/herself succeed in using promotion focus, but using promotion focus is not important and salient to him/her) and that regulatory focus pride and strength may affect different entrepreneurial activities (see [Brockner, Higgins, & Low, 2004] for complete review). Thus, it is entirely possible that entrepreneurial intention is not shaped by promotion pride, as I found in this research, but by promotion strength. Similarly, it is also likely that entrepreneurial intention is shaped by prevention pride but not prevention strength. Future research into the relationship between regulatory focus strength and entrepreneurial intention would be interesting. The results of this essay reconfirm Brockner, Higgins, and Low's (2004) call for the need to investigate the distinction between regulatory focus pride and strength and how they affect entrepreneurs' behaviors differently.

Discussions and Conclusion

In this research I show that individuals' dispositional regulatory focus orientations contribute to their entrepreneurial intentions, and this relationship will carry over to their intentions to reenter entrepreneurship after business exit. I demonstrated that the individuals' dispositional prevention focus orientations are negatively related to their entrepreneurial intentions and that the entrepreneurs' dispositional prevention focus orientations are also negatively related to their intentions to reenter entrepreneurship. Most importantly, I found that the relationship between dispositional regulatory focus orientation and intention to reenter will be moderated by the nature of prior entrepreneurial experience (i.e. financial success or failure). The results indicate that the financial losses of prior venture strengthen the negative relationship between prevention focus orientation and intention to reenter. This is because prior failure lowers the outcome expectancies of the subsequent entrepreneurial opportunity and makes the risk associated with that opportunity more salient to the entrepreneur. According to regulatory focus theory, the individuals with prevention focus orientations are apt to use avoidance strategy to avoid risk and satisfy their safety and security needs as a means to pursue their happiness. As a result, the entrepreneurs with higher prevention focus orientations are more reluctant to reenter entrepreneurship (avoid risk), and this relationship is stronger for the entrepreneurs with greater prior financial losses because they are more sensitive to the risk associated with the subsequent entrepreneurial opportunity.

To date, the serial entrepreneurship literature has largely focused on entrepreneurs' prior entrepreneurial experience and how it shapes the entrepreneurs' intentions to reenter entrepreneurship. While it is true that the entrepreneurs' reentry intentions are highly influenced by their past experiences, it is not necessary that all the entrepreneurs with the same prior entrepreneurial experiences would reenter entrepreneurship. Put differently, there should be the difference in those entrepreneurs' levels of reentry intentions, and I argue that dispositional factors at least partly contribute to this difference. In this essay, I identify one of those dispositional factors – prevention focus orientation. Because people have different dispositional prevention focus orientations, some are more reluctant declined to become entrepreneurs. In addition, the reentry intentions of the entrepreneurs who have exited their venture would also be predetermined by those entrepreneurs' dispositional prevention focus orientations.

As I mentioned earlier, although one's regulatory focus orientation has the dispositional component, which is relatively stable across time, it can be situational-induced. The earthquake and the tsunami happened in Japan in March 2011 are likely to make the safety and security needs more salient than the achievement needs to Japanese and elicit their prevention focus orientation. It could also be true that their prevention focus would shift to promotion focus if the prime minister of Japan was able to give such a speech like Martin Luther King's "I have a dream" after the disaster. Thus, I acknowledge that input from the external environment such as the outcome of the prior venture may also contribute to one's in-use regulatory focus orientation after business exit. This is because of the chronic nature of regulatory focus. One's regulatory focus orientation can be shifted by environmental inputs over time (Brockner & Higgins, 2001). However, under what circumstance the individual's regulatory focus orientation would shift remains unknown (Brockner & Higgins, 2001). In the entrepreneurship context, to what extent the nature of prior entrepreneurial experience contributes to an entrepreneur's in-use regulatory focus orientation is still in question. In this essay I show that when the entrepreneur's regulatory focus orientation (e.g. prevention focus) "fit" the input from the environment (e.g. financial losses), the entrepreneur would be motivated the most to shy away from entrepreneurship again. It would also be interesting to examine how the entrepreneur's regulatory focus shifts when his or her dispositional regulator focus (e.g. prevention focus) does not fit the environmental input (e.g. financial gains) and how this shifts contributes to intention to reenter entrepreneurship.

Chapter 4: Essay 3

Introduction

Why do many entrepreneurs continue to pursue entrepreneurial opportunities after business exit? Existing research examines this question is largely from the *self-regulatory* perspective (e.g. Bandura, 1991) and suggests that entrepreneurs would regulate their subsequent entrepreneurial behaviors in response to past feedback (e.g. learning from past experience) (Bandura, 1978; Baron, 2004; Brockner, et al., 2004). That is, those entrepreneurs reentered entrepreneurship because of what they had learnt from past experience (Cope, 2005; Politis, 2005; Rerup, 2005). The more human capital the entrepreneur learnt from past experience, for instance, the more likely they would pursue and undertake the subsequent business opportunity. This line of research delineates how learning from past experiences changes the entrepreneurs cognition (e.g. self-efficacy [Bandura, 1997]) and thus affects their subsequent entrepreneurial attitudes and behaviors.

Recently, psychologists started to highlight that one’s self-regulation mechanism includes both the cognitive aspect and the emotional aspect (Bagozzi, 1992; Gross, 1998). Individuals’ cognitive reactions and emotional reactions oftentimes interactively determine individuals’ behaviors (Beauregard, Levesque, & Bourgouin, 2001). People fail at cognitive regulation partly because they fail at emotional regulation (Baumeister, Heatherton, & Tice, 1994). As a consequence, research on how prior experience affects entrepreneurs’ subsequent attitudes and behaviors would be advanced if researchers would take into consideration the emotional aspect of the entrepreneur's self-regulation in response to prior entrepreneurial experience.

As such, this essay aims to complement existing research on the relationship between prior experience and subsequent entrepreneurial activities by investigating the entrepreneurs' cognitive and emotional responses to prior entrepreneurial experience. To this end, I examine the entrepreneur's psychological ownership (Pierce, et al., 2001), which has both emotional and cognitive components (Pierce, et al., 2001; Van Dyne & Pierce, 2004). I propose that because of its emotional and cognitive components, psychological ownership is likely to influence the entrepreneur's intention to reenter entrepreneurship through a combination of the cognitive and the emotional self-regulation mechanisms.

The feeling of ownership is important to understand the entrepreneurs' behaviors because many entrepreneurs regard the ventures that they are undertaking as "their babies (Cardon, Zietsma, Saparito, Matherne, & Davis, 2005)." Literature has suggested this ownership feeling would have significant impact on business exit (DeTienne, 2010). Extending this line of research, I suggest that the effect of psychological ownership toward the venture would travel from the pre-exit stage to the post-exit stage. In doing so, this essay contributes to theory in several aspects.

First, serial entrepreneurship literature has largely focused on how learning from prior experience affects the entrepreneur's intention to reenter entrepreneurship. This study identifies psychological ownership as another important antecedent of entrepreneur's intention to reenter. Unlike learning, which usually speaks only to cognition, psychological ownership contains both the cognitive component and emotional component and is likely to affect individuals through cognitive and emotional self-regulatory mechanisms. By investigating the role of psychological ownership in the serial entrepreneurship context, this essay argues for the importance of the emotional self-regulation, in addition to cognitive self-regulation (e.g. learning), as a response to psychology researchers' recent findings and thus complements existing entrepreneurship research on individual entrepreneurs at the post-exit stages.

Second, psychological ownership literature argues that loss of the ownership feeling may both motivate and demotivate an individual (Pierce, et al., 2001). For instance, Pierce and his colleagues (2001) suggest that if the loss of ownership is self-initiated (e.g. voluntary job turnover), the individual would be motivated to work hard in the subsequent job by the voluntary loss. If the loss is externally imposed (e.g. involuntary job turnover), it would rather demotivate the individual to work hard in the subsequent job. In this essay, I argue that personal factors would also make the difference in the relationship between loss of ownership and the entrepreneur's motivation to start the subsequent venture (i.e. intention to reenter). The literature of psychological ownership thus is advanced by including the individual's personal factors in the framework. Specifically, this essay highlights that, in the context of entrepreneurship, whether loss of the ownership feeling motivates or demotivates entrepreneurs is contingent on their prevention focus orientations (Higgins, 1997).

Third, I provide a possible reason why psychological ownership would motivate the entrepreneur to reenter entrepreneurship after business exit. Not until recently Scholars have started to argue that psychological ownership has multiple dimensions. Research, drawing on territoriality literature (Brown, et al., 2005), suggests that territoriality represents the "dark side" of psychological ownership (Avey, et al., 2009). Extending this line of research, I introduce the construct of territoriality, as one of the dimensions of psychological ownership, to the entrepreneurship context and argue that territoriality serves as the mechanism governing the relationship between psychological ownership and intention to reenter. In other words, reentering entrepreneurship would serve as a territorial behavior in response to business exit for the entrepreneurs with strong psychological ownership toward the prior venture.

The essay proceeds as follows. I first review literature on psychological ownership and summarize how it can be applied to the context of entrepreneurship. I then discuss how psychological ownership would affect entrepreneurs at the post-exit stage. Several hypotheses regarding the relationship among psychological ownership toward the prior venture, regulatory focus orientations, and the entrepreneur's subsequent intention to reenter entrepreneurship are presented. In the method section, I outline the experiment design with 65 entrepreneurs and discuss the results, followed by the conclusion about findings and the direction for future research.

Theoretical Development

Psychological Ownership

Pierce and his colleagues (2001) introduced into the organizational settings the construct of psychological ownership, which refers to the state in which individuals feel the target or a piece of that target as theirs and perceive it as an extension of their "selves (Harter, 1998; Harter, 2001; James, 1890)". They suggest that employees incur the feelings of psychological ownership for the organizations through developing control over the target, learning knowledge about the target, and investing effort into the target (Pierce, et al., 2001). I argue that psychological ownership is especially important and relevant to entrepreneurship because entrepreneurs exert control over the venture, develop extensive knowledge about the venture, and invest a significant amount of energy and time into the venture. As a consequence, the ventures become part of the entrepreneurs' "selves"; the entrepreneurs should have incurred to a degree the feeling of psychological ownership for their ventures through the development of the venture.

However, it is not to say that all the entrepreneurs would have the same level of ownership feelings for their ventures. Portfolio entrepreneurs, for instance, should have relatively low levels of ownership feelings because they are running multiple ventures at a time (Vesper, 1990; Westhead & Wright, 1998) and should have spent less energy and time on a single venture in their portfolios. The lead entrepreneur (Ensley, Carland, & Carland, 2000) may have a higher level of ownership feelings than his or her co-entrepreneur counterparts because his or her decision power, as well as the level of control over the venture, is stronger. The variance in the entrepreneurs' psychological ownership toward the venture may result in the different attitudes and behaviors across entrepreneurial stages (DeTienne, 2010).

Support for the effect of psychological ownership on the entrepreneurs can be found in territoriality literature (e.g. Brown, et al., 2005). Territoriality refers to the individual's behavioral reactions to his or her ownership feelings for a target (Avey, et al., 2009; Brown, et al., 2005) and includes the behaviors of marking the territory and defending the territory (Brown, et al., 2005). On the one hand, when one's territory is *under threat*, he or she is likely to endeavor to find a way to clearly show others that the territory is under his or her possession. On the other, when one's possessed territory has been *infringed or lost*, he or she is likely to endeavor to find a way to maintain or restore that territory. In addition, the individual who has stronger ownership feelings for his or her territory (the target) would be more likely to exhibit those territorial behaviors (Brown, et al., 2005).

In the entrepreneurship context, territoriality associated with the feelings of psychological ownership may affect the entrepreneurs around the business exit stage. For instance, research has shown that the entrepreneurs may procrastinate business exit when they anticipate business failure (Shepherd, et al., 2009). Procrastinating may be a territorial behavior for the entrepreneur to use as a means to defend his or her territory (i.e. the venture). At the post-exit stage, psychological ownership may also affect the entrepreneurs through territoriality because those entrepreneurs are experiencing *infringement or losses* of their territories (their ventures) and thus would exhibit territorial behaviors such as starting another venture to regain their territories (i.e. the ventures). This reaction is similar to that of the individuals who have lost their cars to theft. Given this circumstance the individuals are likely to report to the police and attempt to find their lost cars. If they fail to find their lost cars, they may get a new car to make up for the loss as a means to restore their territories (car). Because psychological ownership would increase the likelihood of an individual's territorial behaviors (Belk, 1988; Brown, et al., 2005), the entrepreneurs with stronger psychological ownership toward their prior ventures would have higher intentions to start another venture (a territorial behavior) after exiting their prior ventures. Thus,

Hypothesis 1. There is a positive relationship between entrepreneurs' psychological ownership toward the prior venture and their intentions to reenter entrepreneurship.

Individual Difference

Research suggests that although there is a relationship between psychological ownership and territorial behaviors, this relationship may be contingent on other factors such as personal attribution and individual differences (Brown, et al., 2005; Pierce, et al., 2001). If an individual found that he or she was responsible for the loss of the territory, for instance, he or she would be more likely to engage in the territorial behaviors (Brown, et al., 2005). If an individual perceived the loss of territory as preferable (e.g. harvest sale [Shepherd, et al., 2009]), similarly, he or she would be unlikely to engage in the territorial behaviors. This is consistent with Pierce and his colleagues' (2001) argument that when change is self-initiated, the individual would be more likely to accept change (e.g. non-territorial behaviors). When change is externally-imposed, the individual would be more unlikely to accept change (e.g. territorial behaviors). That is, the positive relationship between psychological ownership and territorial behaviors is contingent on many other factors such as preference for change. In this essay, therefore, I propose that one of those factors is the entrepreneur's prevention focus orientation (Higgins, 1997) because this individual difference may affect the entrepreneur's preference for change (i.e.

the loss of their ventures).

When entrepreneurs exit their ventures, they experience change in their lives and careers. Some entrepreneurs may regard change as an opportunity to pursue their dreams and thus are in favor of change. On the flip side, other entrepreneurs may see change as threat to their security needs and perceive change less preferable. Higgin's (1997) regulatory focus theory provides a possible explanation for the difference in an individual's preference for change. The theory (Higgins, 1997) suggests that individuals differ in their regulatory focus orientations: promotion focus orientations vs. prevention focus orientations. The individuals with strong prevention focus orientations are likely to negatively frame change (Lee & Aaker, 2004) and see it as failure to maintain the status quo (Avey, et al., 2009; Liberman, Idson, Camacho, & Higgins, 1999). As a consequence, change or threat to the status quo is less preferable for the prevention-focused individuals. In the context of entrepreneurship, the entrepreneurs with stronger prevention focus orientations would perceive change, or business exit, as a less preferred option because staying with the venture (maintaining the status quo) would satisfy their security and safety needs (Brockner & Higgins, 2001; Brockner, et al., 2004). Hence, I argue that the likelihood of the entrepreneurs' territorial behaviors (e.g. starting another venture) would be greater to the degree the entrepreneurs perceive change, or business exit, less favorable. Because the favorableness of business exit is partly shaped by an individual's innate prevention focus orientation, specifically, I propose that the entrepreneurs who are more motivated to start another venture in response to the loss of psychological ownership toward the target (territory) are the ones with stronger prevention focus orientations. Therefore, *Hypothesis 2. Prevention focus orientation moderates the relationship between entrepreneurs' psychological ownership toward the prior venture and their intentions to reenter entrepreneurship in such a way that the greater the prevention focus orientation, the stronger the relationship between psychological ownership and intention to reenter.*

It is important to note that this essay does not hypothesize the moderating effect of promotion focus orientation on the relationship between psychological ownership and intention to reenter. I acknowledge that the promotion-focused entrepreneurs are likely to positively frame change (Lee & Aaker, 2004) and see it as an opportunity to pursue their hopes, wishes, and aspirations to fulfill their achievement needs (Brockner & Higgins, 2001; Higgins, 1997; Liberman, et al., 1999). They have preference for change. As a consequence, when promotion-focused entrepreneurs lose their ventures, they are more unlikely to exhibit the territorial behaviors such as start another venture as a means to regain their “territories” (ventures) because their preference for change. However, since entrepreneurship is a series of tasks that can bring the entrepreneurs the feelings of achievement (Johnson, 1990; McClelland, 1965; Politis, 2005; Shepherd, 2003) and promotion-focused individuals are primarily driven by their achievement needs, starting another venture could still be an approach for the promotion-focused entrepreneurs to satisfy their achievement needs. Put differently, the promotion-focused entrepreneurs would be more unlikely to exhibit territorial behaviors because their preference for change, but they would still reenter entrepreneurship to fulfill their innate achievement needs. As a result, the moderating effect of promotion focus orientation may not exist.

Methods

Because of my interest in the causal effect of psychological ownership on intention to reenter, I thus use an online experiment with entrepreneurs to test my hypotheses. 175 entrepreneurs associated with the entrepreneurship center at Syracuse University were invited to participate in the online experiment. The director of the entrepreneurship center first sent individual email invitations to those entrepreneurs. One month later, an individual email reminder was sent to each entrepreneur to increase the response rate. I finally received 65 completed responses (37.14% response rate), of which 45 are male. 60 (93.8%) of them started up a business before. 62 (96.9%) owned a business before. Among the previous owned businesses, 44 were reported as success, 1 was reported as failure, and 17 reported as neither success nor failure. Most of the respondents are experienced entrepreneurs. 39 respondents are running 1 business, and 21 are running multiple businesses. 25 respondents have an entrepreneur parent. 13 respondents' families own family businesses. The majority of them are in their 50's and have a bachelor's or master's degree.

Cover Stories and Manipulations

A hypothetical high-tech ski helmet business was selected as the cover story. Pierce et al. (2001) suggest that individuals incur psychological ownership toward the target through exerting control over the target and developing intimate knowledge about it. I thus incorporate control and knowledge in the cover story as a manipulation of psychological ownership. In the high psychological ownership groups, the subjects were told to imagine that they owned 100% of the venture and had complete knowledge of how the business was operating. They were also given the detailed description of the business and information about how the technology works. In the low psychological ownership groups the subjects were told that they were co-entrepreneurs and owned only 30% of the venture. In addition, they were told that they did not know how the entire business was operating and were given only the brief description of the business. The samples of the cover stories can be found in Appendix D.

Because the venture's financial success or failure may also affect the entrepreneurs after exiting that venture (Politis, 2005; Shepherd, 2003), I manipulated financial performance as a control variable by informing the subjects that their ventures made or lost money. The subjects in the financial gain groups were told that a company wanted to purchase their helmet business at a great price, and this deal gave them a personal gain of 1 million dollars, which exceeds what they could earn if they were to work in a steady job for 20 years. The subjects in the financial loss groups were told that their venture performed poorly and had to be shut down. This gave the subjects personal losses of 1 million dollars, and they would have to work in a steady job for 20 years to recover their loss. I did not provide information regarding the subjects' entrepreneurial abilities. As such the experiment is a 2 (psychological ownership) X 2 (financial performance) between-subject design, where financial performance serves as a control variable.

Independent Variable

Psychological ownership was coded as 0 (low psychological ownership) or 1 (high psychological ownership) in accord with the entrepreneurs' assigned conditions. The participants' prevention focus orientations were measured in the post-experiment questionnaire by using Higgins et al.'s (2001) Regulatory Focus Questionnaire (RFQ), which consists of 6 items of promotion focus and 5 items of prevention focus on 11-point Likert scales.

Dependent Variable

All the existing measurement scales of entrepreneurial intention do not apply to serial entrepreneurship (intention to reenter) well. I therefore adopted 3 items from Thompson's (2009) ten-item measure of entrepreneurial intent, 2 items from Liñán & Chen's (2009) six-item measure of entrepreneurial intention, and 1 item from Chen, Greene, and Crick's (1998) five-item measure of entrepreneurial intention and modified them to form my six-item measure of intention to reenter. The measure consists of 6 statements ("I would set up another company in the future," "I will never search for business start-up opportunities" [reverse-coded], "I will have no plans to launch another business of any type" [reverse-coded], "My professional goal is to be an entrepreneur," "I will make every effort to start and run another company," and "I will set up another business of some type very soon") on 7-point Likert scales ranging from 1 (total disagree) to 7 (total agree) (Cronbach α = .85).

Manipulation Checks

To check whether my manipulation of psychological ownership through control and intimate knowledge works or not, I asked the subjects on a separate computer screen to what extent they agreed on the statement "I feel the helmet venture is mine" on a 7-point

Likert scale, ranging from 1 (total disagree) to 7 (total agree).

Control Variables

Financial performance of the hypothetical venture at two levels (financial success vs. failure) is entered to the model as a control variable. I also included gender as a control variable because male and female may have different levels of entrepreneurial intentions (Wilson, Kickul, & Marlino, 2007; Zhao, et al., 2005). Since theory suggests that promotion focus may moderately correlate with prevention focus (Higgins, et al., 2001), I thus added the entrepreneurs' promotion focus orientation, which was measured with Higgins et al.'s (2001) RFQ, to the model to make my results more robust.

Results and Analysis

Mean comparison of the manipulation check questions was first performed to check whether my manipulation of psychological ownership is effective or not. The result was presented in Table 10. The psychological ownership toward the hypothetical venture for the entrepreneurs in the low psychological ownership groups was significantly lower than that for the entrepreneurs in the high psychological ownership groups ($t = -2.321$; $p < .05$). This showed that the manipulation of psychological ownership was successful.

TABLE 10: Mean Comparison of Psychological Ownership

Variables	N	Mean	SD	t-test for equality of means
Psychological Ownership				
Low	29	3.97	1.679	-2.321*
High	36	5	1.867	

*p < .05

Hierarchical regression was then performed to test the proposed main effect (H1) and the interacting effect (H2). Because psychological ownership was a dichotomous variable, I thus centered promotion and prevention focus to minimize multicollinearity (Cohen, J. & Cohen, 1983). The interaction term of psychological ownership and prevention focus was created by multiplying psychological ownership and centered prevention focus and entered to the model.

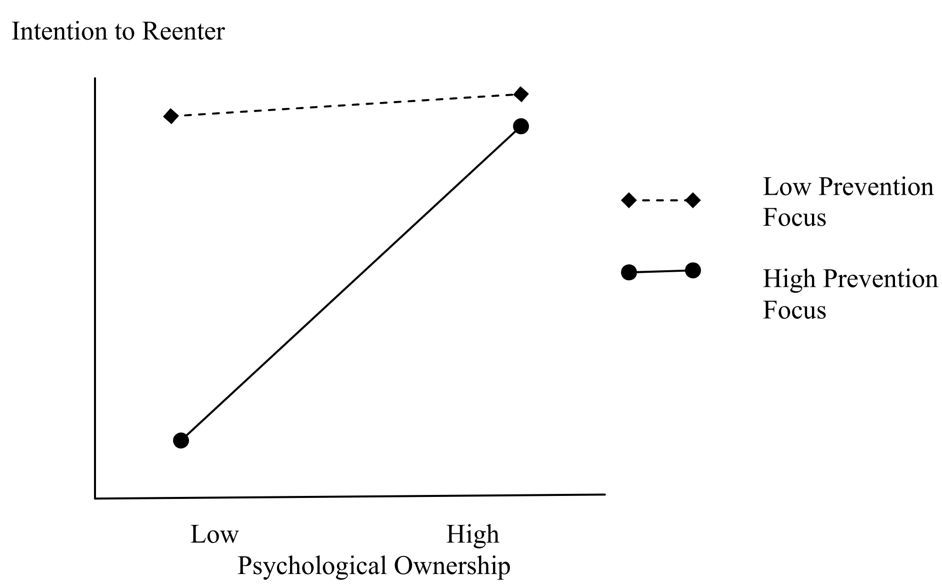
Table 11 showed that in the base model ($R^2 = .308$, $p < .01$), where the three control variables were included, psychological ownership was positively related to intention to reenter (ß = .272, $p < .05$). This relationship still existed (ß = .271, $p < .05$) in the full model ($R^2 = .363$, $p < .01$), where the interaction term was included. Hypothesis 1 was thus supported. The interaction term was significant (ß = .353, $p < .05$), indicating that prevention focus orientation positively moderated the relationship between psychological ownership and intention to reenter. The greater the entrepreneur's prevention focus orientation, the stronger the positive relationship between psychological ownership and intention to reenter entrepreneurship. The moderating effect was presented in Figure 4. Hypothesis 2 therefor was also supported.

TABLE 11: Regression Models of Psychological Ownership and Intention to Reenter

	Standardized Coefficients		
		Base Model	Full Model
Control Variables			
Gender	-.451***	-.290***	-.333**
Financial Performance	.251**	.232**	.244**
Main Effects			
Psychological Ownership		.272**	.271**
Promotion Focus		.104	.182
Prevention Focus		-.209*	-.438***
Interaction Effects			
PO X Prevention			.353**
R^2	.207***	.308***	.363***
ΔR^2		.101**	.055**

N = 65; *** Coefficient is significant at the 0.01 level; ** Coefficient is significant at the 0.05 level; * Coefficient is significant at the 0.10 level

FIGURE 4: The Moderating Effect of Prevention Focus Orientation



In sum, the results indicate that the entrepreneurs with stronger psychological ownership toward his or her prior venture would have higher intentions to reenter entrepreneurship after business exit. In addition, this relationship would be strengthened by the entrepreneurs' prevention focus orientations.

Discussions and Conclusion

Many entrepreneurs reentered entrepreneurship after exiting their last ventures. Existing literature suggests that this is because entrepreneurs learn human capital from their past experiences (Politis, 2005; Ucbasaran, et al., 2003). Since learning from the environment (e.g. entrepreneurship) is usually deemed as a cognitive self-regulation process (Bandura, 1978; Higgins, 2000), current entrepreneurship research examines the individual entrepreneurs at the post-exit stages largely from the cognitive perspective. In this essay, I provide an alternative explanation for the entrepreneur's reentry into entrepreneurship. Built on psychology theories suggesting that self-regulation is both a cognitive and an emotional process (Salovey, Hsee, & Mayer, 1993), I show that psychological ownership would also affect the individual entrepreneurs at the post-exit stages. Specifically, this essay demonstrates the positive relationship between psychological ownership toward the prior venture and intention to reenter. I propose that this is because of the underlying mechanism of territoriality, the "dark side" dimension of psychological ownership (Avey, et al., 2009). When the entrepreneurs lost the feeling of ownership of their ventures, they would endeavor to restore that feeling by starting another venture as a territorial behavior.

Existing literature oftentimes regards territoriality as the “dark side” of psychological ownership (Avey, et al., 2009) and suggests that territoriality would have negative impact on the individuals. In the organizational context, for instance, the employee who has a strong ownership feeling toward his or her current job roles would be reluctant to accept a newcomer, as a territorial behavior, because they may perceive a newcomer as a threat to their current job roles. When I introduced territoriality and psychological ownership to entrepreneurship, I showed that the “dark side” of psychological ownership might actually promote entrepreneurship in the society through increasing the entrepreneur’s intention to reenter entrepreneurship. Nevertheless, territoriality should also have negative impact on individual entrepreneurs. Similar to the employees in the organizational setting, the entrepreneurs with stronger psychological ownership toward their ventures may be more reluctant to welcome new partners, co-entrepreneurs, or investors because of territoriality. This limits the resources the entrepreneurs could use and undermines the likelihood of venture success. More research on the effect of territoriality in the entrepreneurial process is needed.

It is important to note that psychological ownership may be associated with rights and responsibility (Pierce, et al., 2001). When the entrepreneurs started their ventures and developed psychological ownership toward the venture, they would inevitably incur the feeling of responsibility of that venture. Escalating commitment literature suggests that those entrepreneurs are likely to escalate their commitments to the venture when it underperforms (Staw, 1976; Staw & Ross, 1978) because they are reluctant to admit that their previous effort is in vain. Similarly, procrastinating literature argues that the entrepreneurs with stronger emotional attachment to their ventures would be more likely to persist with the venture in the face of business failure (Shepherd, et al., 2009). Consistent with those studies, business exit literature argues that psychological ownership may affect the entrepreneur's business exit decision when the venture underperforms (DeTienne, 2010). In this essay, I take a step further to bring the construct of psychological ownership from the domain of business exit to the domain of serial entrepreneurship and demonstrate the positive relationship between psychological ownership and intention to reenter. However, the results of this essay show that the positive relationship is contingent on individual difference such as prevention focus. This contingency relationship has not been explored in business exit literature. If the relationship between psychological ownership and business exit decision is contingent on the entrepreneur's prevention focus orientation, the framework provided in business exit, procrastinating, and escalating commitment literature would be extended. Future research on the contingency relationship in the domain of business exit would be valuable.

Chapter 5: Conclusions

To date, serial entrepreneurship has become an important area in the field of entrepreneurship. However, theories regarding what makes people more or less likely to become serial entrepreneurs are still incomplete. Existing studies generally assume that the entrepreneurs' serial entrepreneurship intentions would be heavily shaped by the quantity of entrepreneurial experience. The dissertation complements this view by investigating the qualitative difference among entrepreneurial experience (success vs. failure). In addition, theories suggest that entrepreneurial activities would also be affected by emotions and personality traits (Baron, 2008; Shane, Nicolaou, Cherkas, & Spector, 2010). I thus investigate the dispositional regulatory focus orientations and psychological ownership to make my theoretical model more comprehensive. To do so, I conducted two experimental studies with 175 undergraduate students taking the entrepreneurship course and 65 entrepreneurs affiliated with the entrepreneurship center at Syracuse University.

Summary of Findings

In the first essay I focused on reconciling the opposite views from cognition scholars and decision-making scholars on how the quality (success vs. failure) of prior experience affects the entrepreneur's intention to reenter entrepreneurship. As I discussed in Chapter 2, cognition scholars suggest that prior success would increase intention through boosted self-efficacy, while decision-making theorists suggest that prior financial success would decrease intention to pursue risky activities because success triggers risk-averse attitudes. In Essay 1, I propose there is a moderating effect of self-efficacy on the relationship between prior financial success and intention to reenter entrepreneurship. Two experiments with undergraduate students and entrepreneurs were designed to test my model. In the first experiment with the students, the results indicate that although there is a negative relationship between prior financial success and intention to reenter, this relationship will be weakened by the subjects' post-exit entrepreneurial self-efficacy. In the second experiment with the entrepreneurs, I did not find support for the relationship between prior financial success and intention to reenter, while the positive relationship between post-exit entrepreneurial self-efficacy and intention to reenter still exists. Further looking into data in the second experiment, I found the entrepreneurs' measured entrepreneurial self-efficacy in the second experiment is significantly higher than the student's manipulated entrepreneurial self-efficacy. This explains why my model is supported in the first experiment but not the second experiment. Because the entrepreneurs' entrepreneurial self-efficacy is high, the negative relationship between prior financial performance and intention to reenter suggested by prospect theory becomes less likely. As a consequence, the non-finding in the second experiment actually supports my moderating model that entrepreneurial self-efficacy positively moderates the negative relationship between prior financial success and intention to reenter entrepreneurship.

Essay 2 looks into the variance in serial entrepreneurship intentions from both the dispositional perspective and the situational perspective (i.e. prior venture experience) to complement Essay 1 from the purely situational perspective. I suggest the entrepreneurs' dispositional regulatory focus orientations would interact with situational factors such as the outcome of prior entrepreneurial experience to determine intention to reenter. The dispositional regulatory focus orientation measure was integrated into the post-experiment questionnaire to capture the subjects' regulatory focus orientations. As a consequence, the method employed in Essay2 was quasi-experiment because the promotion-focused and the prevention-focused entrepreneurs were not randomly assigned into the experimental groups. Nevertheless, the results of both experiments show that dispositional prevention focus has negative impact on the entrepreneurs' intentions to reenter entrepreneurship, and this effect would be stronger for the entrepreneurs with prior financial failure experience. However, the relationship between promotion focus and intention to reenter was not found.

In the third essay, I examined the relationship between psychological ownership toward the prior venture and intention to reenter. The results demonstrate that the stronger the psychological ownership, the higher the intention to reenter entrepreneurship. Furthermore, this relationship will be strengthened by the entrepreneur's dispositional prevention focus orientation.

Direction for Future Research

In the first essay, I suggest four scenarios where the entrepreneurs' intentions to reenter entrepreneurship would vary (Table 12). The differentiator among the four scenarios is the attribution mechanism (Weiner, 1974). The first scenario, for instance, is prior financial gains with high post-exit entrepreneurial self-efficacy because self-efficacy is likely to be increased by prior success if the individual internally attribute the cause of the success (Bandura, 1986; Gist & Mitchell, 1992). The second scenario is prior financial losses with high post-exit entrepreneurial self-efficacy. This scenario exists when the entrepreneur attributes the cause of prior financial losses to external factors rather than to his/her own abilities (Gist & Mitchell, 1992). Similar to the second scenario, the third scenario, prior financial gains with low post-exit entrepreneurial self-efficacy, exists when the entrepreneur attributes the cause of prior financial gains to external factors such as luck (Gist & Mitchell, 1992). The last scenario is prior financial losses with low post-exit entrepreneurial self-efficacy, which exists when the entrepreneur attributes the cause of financial failure to his or her own fault (Gist & Mitchell, 1992).

TABLE 12: The 2X2 Matrix of Prior Experience and Self-efficacy

Prior Experience	Low	High
Success	Scenario III (Not reenter) (Predicted by prospect theory)	Scenario I (Reenter) (Predicted by self-efficacy)
Financial Failure	Scenario IV (Reenter) (Predicted by prospect theory)	Scenario II (Reenter) (Predicted by self-efficacy)

Post-exit Entrepreneurial Self-efficacy

The results of Essay 1 imply that the entrepreneurs in the first and second scenarios are highly likely to reenter entrepreneurship because they have high post-exit entrepreneurial self-efficacy. Put differently, those entrepreneurs' intentions to reenter are predicted by high entrepreneurial self-efficacy; and the outcome of prior experience does not matter much in predicting intentions to reenter for those entrepreneurs. For the entrepreneurs in the last two scenarios, on the other hand, their intentions to reenter are rather predicted by the outcome of prior experience because they have low post-exit entrepreneurial self-efficacy. In the third scenario, where the entrepreneurs have prior financial gains, they are likely to shy away from reenter entrepreneurship because they become risk aversely. On the contrary, the entrepreneurs have prior financial losses in the fourth scenario. As a result, they become highly likely to reenter entrepreneurship because prior losses trigger their risk-seeking attitudes.

In sum, the entrepreneurs in the first, second, and fourth scenarios all would have high intention to reenter, although because of different motivations. My model implies that only the entrepreneurs in the third scenario (prior financial gains and low post-exit entrepreneurial self-efficacy) would choose *not* to reenter entrepreneurship (see Table 12). This is where my model departs from existing serial entrepreneurship literature. As I mentioned in the first and second chapters, existing research on serial entrepreneurs assumes that entrepreneurs learn from all kinds of experience. That is, as long as the individuals start up once, they are likely to start another venture after they exit the first one. The existing literature seems to overlook the entrepreneurs in my third scenario (prior financial gains with low post-exit entrepreneurial self-efficacy). One possible explanation for this departure is about the likelihood that the entrepreneurs with prior financial gains would have low post-exit entrepreneurial self-efficacy. Although the first essay, drawing on attribution theory (Weiner, 1974) and self-efficacy literature (Gist & Mitchell, 1992), empirically shows that the students *can* have financial gains but still have relatively low post-exit entrepreneurial self-efficacy because of the external attribution, how likely the entrepreneurs would use the external attribution to reason their gains remains in question. If the likelihood is small, then the relationship between experience and intention to reenter suggested by my model coincides with the existing serial entrepreneurship literature because the entrepreneurs who have prior financial gains and low post-exit entrepreneurial self-efficacy do not exist. If the likelihood is large, then my model extends our understanding of the relationship between prior experience and intention to reenter. Future research on whether the entrepreneurs would externally attribute the cause of their prior financial gains is thus needed.

Another limitation of this dissertation is the chosen methodology. Although the lab experiment method is well recognized in psychology research, it is oftentimes criticized by entrepreneurship scholars. After all, whether the results derived in the lab can travel to the field remains in question in the field of entrepreneurship. Recently, psychologists have provided two reasons for using lab experiments. First, research has shown that the correlation between the results derived from the lab experiments and those from the field are significantly high (Anderson, Lindsay, & Bushman, 1999). This study to some extent demonstrates that the results derived from the lab, if well-designed, can actually travel to the field. Second, some researchers argue that to reject using the lab experiment method to test the hypothesized relationship, a strong theoretical ground is needed. That is, if there is no theoretical reason arguing that the hypothesized relationship in the lab would be different than that in the field, use of the lab experiment method should not be challenged (Colquitt, 2008). Nevertheless, it is generally argued that a study in the field can complement the lab experiment and largely increase the quality of research. As such, a longitudinal study tracing the entrepreneurs until they have exited their venture would be valuable.

The current serial entrepreneurship research is focused on the entrepreneurs who have reentered the entrepreneurship, and this dissertation aims to disentangle the factors affecting the entrepreneurs' intentions to or not to reenter entrepreneurship. As I mentioned in the beginning, however, there is a significant number of the ex-entrepreneurs who did not reenter entrepreneurship after business exit. Where did they go? Some of those entrepreneurs might have retired, while others might have entered workplace to work for established firms. It would be interesting to examine the ex-entrepreneurs who did not reenter entrepreneurship, especially their impact on established organizations when they entered into workplace.

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Appendix A. Experiment 1: Cover Stories

The Cover Story of High Psychological Ownership:

“Please recall the business model that you have come up with in class. Imagine that you *have founded* Company X that runs your business model. You *own 100%* of Company X and *manage* the daily operations. Although you perceive that Company X is a great business *opportunity* and are *passionate* about it, you have been made aware the *risks* of losing your investment if Company X is not successful.”

The Cover Story of Low Psychological Ownership:

“Statistics show that more than 50% of university students reported a need for an on-campus dollar store. Your friend recognized this opportunity and invited you to *co-found* Campus Dollar, a store near a university selling dollar products (i.e. products sold at $1) including simple daily items and groceries. You therefore *own 30%* of Campus Dollar and *manage* the daily operations. Although you perceive that Campus Dollar is a great business *opportunity* and are *passionate* about it, you have been made aware the *risks* of losing your investment if Campus Dollar is not successful.”

Appendix B1. Strategic Questions for Company X in Exp. 1

(For High Psychological Ownership Scenarios)

Competing Dilemma Question

Before start up you have to make a pricing decision. Although you could set your price lower than your competitors', this strategy will decrease your profit margin. Thus, the revenue may not be able to sustain the business. If you choose to maintain the same price as your competitors', you may not be able to attract enough customers.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose the low-price strategy; 7 = 100% to choose the same-price strategy).

0	1	2	3	4	5	6	7
100%							100%
Low price							Same price

Marketing Dilemma Question

To make Company X known you can choose between two marketing strategies. The first strategy is to recruit people to hand out flyers on the street. The second strategy is to advertise in the newspapers. Unfortunately, you can do only one of them, not both, with your limited advertisement budget.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose the flyers; 7 = 100% to choose the newspapers).

0	1	2	3	4	5	6	7
100%							100%
Flyers							Newspapers

Team Dilemma Question

Company X is growing and you need a business partner to help manage the store. Two of your friends are interested. After evaluating them, you found that A is more capable but less trustworthy, whereas B is less capable but more trustworthy.

Please indicate on the scale below whom you are most likely to choose (0 = 100% to choose A; 7 = 100% to choose B).

0	1	2	3	4	5	6	7
100%							100%
A							B

Financing Dilemma Question

You are considering expanding your business to meet customer demands. To do so, you would need to take out a loan of $200,000 from a bank. If you don’t expand, you run the risk of losing your existing customers.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose "borrow-from-a-bank"; 7 = 100% to choose "not-borrow").

0	1	2	3	4	5	6	7
100%							100%
Borrow from banks							Not borrow

Appendix B2. Strategic Questions for Campus Dollar in Exp. 1

(For Low Psychological Ownership Scenarios)

Competing Dilemma Question

To compete with the other dollar stores in Syracuse you have two options. The first is to lower your price. While other stores sell their products at 1 dollar, 99 cents, or 98 cents, you will sell your products at 95 cents. The second strategy is to include a wider selection of products. While other stores sell 200 items, you will sell 500 items. However, each strategy has trade-offs. The low-price strategy reduces your profit margin whereas the more-item strategy increases inventory costs.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose the low-price strategy; 7 = 100% to choose the more-item strategy).

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0	1	2	3	4	5	6	7
100%							100%
Low price (95 cents)							More items (500 items)

Marketing Dilemma Question

To make Campus Dollar known you can choose between two marketing strategies. The first strategy is to recruit student representatives to hand out flyers on the street. The second strategy is to advertise in the Daily Orange. Unfortunately, you can do only one of them, not both, with your limited budget of $1,000.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose the flyers; 7 = 100% to choose the Daily Orange).

0	1	2	3	4	5	6	7
100%							100%
Flyers							Daily Orange

Team Dilemma Question

Campus Dollar is growing and you need a business partner to help manage the store. Two of your friends are interested. After evaluating them, you found that A is more capable but less trustworthy, whereas B is less capable but more trustworthy.

Please indicate on the scale below whom you are most likely to choose (0 = 100% to choose A; 7 = 100% to choose B).

0	1	2	3	4	5	6	7
100%							100%
A							B

Financing Dilemma Question

You are considering expanding your product lines to meet customer demands. To do so, you would need to take out a loan of $200,000 from a bank. If you don't expand, you run the risk of losing your existing customers.

Please indicate on the scale below which you are most likely to choose (0 = 100% to choose "borrow-from-a-bank"; 7 = 100% to choose "not-borrow").

0	1	2	3	4	5	6	7
100%							100%
Borrow from banks							Not borrow

Appendix C1. Manipulations of Financial Performance and ESE for Company X in Exp. 1

Financial Gains and High ESE Groups (The "Success" Group):

"The result of computer analysis shows that **to a large extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. Your answers demonstrate that you **have the entrepreneurial abilities** needed for successfully undertaking a new venture.

Your strong entrepreneurial ability made Company X, the company you **have 100% ownership**, very successful. Company ABC now offers to purchase Company X because of your success, and you decide to accept the offer. This deal gives you a personal **gain of $500,000**. **Thanks to your entrepreneurial ability**, you earned a substantial amount of money, **which exceeds what you could earn if you were to work in a steady job for 10 years**."

Financial Gains and Low ESE Groups (The "Luck" Group):

"The result of computer analysis shows that **only to a small extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. According to your answers, **it could be questioned if you have the entrepreneurial abilities** needed for successfully undertaking a new venture.

After a few months you realize that Company X, **the company you have 100% ownership**, is performing poorly and is almost bankrupt because you lack the entrepreneurial ability needed to build a successful company. Fortunately though, a government unit offers to buy your office space/store location to convert into the government-owned apartments for low-income family, and you decide to accept the offer. This deal gives you a personal **gain of $500,000**, **which exceeds what you could earn if you were to work in a steady job for 10 years**. However, your financial gain is due to pure luck and has nothing to do with your ability. In fact, most start-up activities require **greater entrepreneurial ability than you currently possess**."

Financial Losses and High ESE Groups (The "Misfortune" Group):

"The result of computer analysis shows that **to a large extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. Your answers demonstrate that **you have the entrepreneurial abilities** needed for successfully undertaking a new venture.

Your strong entrepreneurial ability made Company X, **the company you have 100% ownership**, successful. One day, unfortunately, your office got robbed, and the equipment crucial to your business got stolen. This unfortunate event forced you to close Company X. After selling your remaining inventory at a loss, your **total losses amount to $500,000. You would have to work in a steady job for 10 years to recover your loss.** However, the outcome of Campus Dollar is due to bad luck and has nothing to do with your ability. In fact, **your entrepreneurial ability is now much stronger** because you have acquired diverse skills from this experience."

Financial Losses and Low ESE Groups (The "Failure" Group):

"The result of computer analysis shows that **only to a small extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. According to your answers, **it could be questioned** if you have the entrepreneurial abilities needed for successfully undertaking a new venture.

After a few months you realize that Company X, the company you **have 100% ownership**, is performing poorly and is almost bankrupt because you lack the entrepreneurial ability needed to build a successful company. You realize that your best option is to close the business to minimize your losses. After selling your remaining inventory at a loss, your total **losses amount to $500,000. You would have to work in a steady job for 10 years to recover your loss.**"

Appendix C2. Manipulations of Financial Performance and ESE for Campus Dollar Scenarios in Exp. 1

Financial Gains and High ESE Groups (The “Success” Group):

“The result of computer analysis shows that **to a large extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. Your answers demonstrate that you **have the entrepreneurial abilities** needed for successfully undertaking a new venture.

Your strong entrepreneurial ability made Campus Dollar, the company you **have 30% ownership**, very successful. Company ABC now offers to purchase Campus Dollar because of your success, and you decide to accept the offer. This deal gives you a personal **gain of $500,000**. **Thanks to your entrepreneurial ability**, you earned a substantial amount of money, **which exceeds what you could earn if you were to work in a steady job for 10 years**.”

Financial Gains and Low ESE Groups (The “Luck” Group):

“The result of computer analysis shows that **only to a small extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. According to your answers, **it could be questioned if you have the entrepreneurial abilities** needed for successfully undertaking a new venture.

After a few months you realize that Campus Dollar, the company you **have 30% ownership**, is performing poorly and is almost bankrupt because you lack the entrepreneurial ability needed to build a successful company. Fortunately though, the university offers to buy Campus dollar, to convert it into a residence hall, and you decide to accept the offer. This deal gives you a personal **gain of $500,000**, **which exceeds what you could earn if you were to work in a steady job for 10 years**. However, your financial gain is due to pure luck and has nothing to do with your ability. In fact, most start-up activities require **greater entrepreneurial ability than you currently possess**."

Financial Losses and High ESE Groups (The "Misfortune" Group):

"The result of computer analysis shows that **to a large extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. Your answers demonstrate that **you have the entrepreneurial abilities** needed for successfully undertaking a new venture.

Your strong entrepreneurial ability made Campus Dollar, the company you **have 30% ownership**, successful. Unfortunately, the university now decides to open a similar business on campus. You are losing your customers rapidly and decide to close Campus Dollar. After selling the remaining inventory for Campus dollar at a loss, your **total losses amount to $500,000. You would have to work in a steady job for 10 years to recover your loss.** However, the outcome of Campus Dollar is due to bad luck and has nothing to do with your ability. In fact, **your entrepreneurial ability is now much stronger** because you have acquired diverse skills from this experience."

Financial Losses and Low ESE Groups (The "Failure" Group):

"The result of computer analysis shows that **only to a small extent** do your answers to the previous strategic questions match those of the successful entrepreneurs. According to your answers, **it could be questioned** if you have the entrepreneurial abilities needed for successfully undertaking a new venture.

After a few months you realize that Campus Dollar, the company you **have 30% ownership**, is performing poorly and is almost bankrupt because you lack the entrepreneurial ability needed to build a successful company. You realize that your best option is to close the business to minimize your losses. After selling your remaining inventory at a loss, your total **losses amount to $500,000. You would have to work in a steady job for 10 years to recover your loss.** "

Appendix D. Experiment 2: Cover Stories

High Psychological Ownership Groups:

“Statistics show that two things are important to the winter sport lovers when they are skiing or snowboarding - safety and technology compatibility. First, many skiing accidents become serious because the skiers or snowboarders are unable to call for help or cannot tell rescuer their locations. This delays the rescue process and raises safety concerns of the skiers and snowboarders. Second, the existing ski or snowboard outfits are not compatible with technology useful for communication or entertainment. Skiers and snowboarders, for example, find it inconvenient to use cell phones on the hill. They have to take off their helmets to use the phone. It is also inconvenient to use iPods with the existing outfits.

Please imagine the following situation:

Recognizing this market demands, you realize that a business providing the helmets for skiers and snowboarders that address the customers’ needs for safety and technology compatibility would be profitable. You decide to manufacture and sell the helmets that integrate an automatic reporting system as well as a GPS system so that the rescue team will be automatically notified and the skiers and snowboarders can be easily located and discovered when they have an accident on the hill. The helmets also have an embedded earphone and an adapter so that the skiers and snowboarders can connect their iPhone and iPod to the helmets. The skiers and snowboarders can make a call or listen to their iPod with this technology-compatible helmet.

You recognized this opportunity and *founded* Fancy Helmets producing and selling the helmets described above. Although you perceive that Fancy Helmets is a great business opportunity and are passionate about it, you have been made aware of the risks of losing your investment if Fancy Helmets is not successful. Because you are the sole founder of Fancy Helmets, you therefore **own 100%** of Fancy Helmets and manage the daily operations. You invest all of your time and energy into this business and **completely understand** how the entire business operates."

Low Psychological Ownership Groups:

"Statistics show that two things are important to the winter sport lovers when they are skiing or snowboarding - safety and technology compatibility. First, many skiing accidents become serious because the skiers or snowboarders are unable to call for help or cannot tell rescuer their locations. This delays the rescue process and raises safety concerns of the skiers and snowboarders. Second, the existing ski or snowboard outfits are not compatible with technology useful for communication or entertainment. Skiers and snowboarders, for example, find it inconvenient to use cell phones on the hill. They have to take off their helmets to use the phone. It is also inconvenient to use iPods with the existing outfits.

Please imagine the following situation:

Your friend recognizes this opportunity and invites you to *co-found* the company, Fancy Helmets, which produces and sells helmets addressing the customers' needs for safety and technology compatibility. While you perceive that Fancy Helmets is a great business opportunity and are passionate about it, you have been made aware of the risks of losing your investment if Fancy Helmets is not successful.

Among the co-founders you are in charge of a certain business domain (for example, sales and marketing). Although you have expertise in this domain, you know little about the domains that the other founders are responsible for (for example, manufacturing and technology). As a result, you **do not have complete knowledge** of how the entire business operates. Considering that other co-founders have made substantial contributions to Fancy Helmets, you therefore **own 30%** of Fancy Helmets while other co-founders together own the rest.

Appendix E. Experiment 2: Intention to Reenter Entrepreneurship

1.	I would set up another company in the future.
2.	I will never search for business start-up opportunities (reverse-coded).
3.	I will have no plans to launch another business of any type (reverse-coded).
4.	My professional goal is to be an entrepreneur.
5.	I will make every effort to start and run another company.
6.	I will set up another business of some type very soon.

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