

**DECISION SCIENCES INSTITUTE**  
Mining for the Entrepreneurial Element

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**ABSTRACT**

This study reviews the literature on serial and parallel or portfolio entrepreneurship and argues the importance of differentiating between them when conducting research. The entrepreneurial element that researchers seek can only be found deep within the metacognitive processes of parallel entrepreneurs; those who have demonstrated the repeated ability to succeed. Many extant entrepreneurship studies are misleading because they report findings from samples where, based on widely known statistics, most of the entrepreneurs eventually failed or just got lucky once.

**KEYWORDS:** Entrepreneurship & Strategy, Cognition & Reasoning

**INTRODUCTION**

Entrepreneurship is often heralded by politicians as being the backbone of the US economy and as a job creator. Aligned with this belief is academia's embrace of entrepreneurship as demonstrated by the dramatic increase in the number of entrepreneurship programs (Inc., 2006) even as academic researchers struggle to clearly define entrepreneurship as a unique discipline (Low, 2001) and understand how entrepreneurs differ cognitively from other economic actors despite some suggestions by learned scholars such as Nobel Laureate Kenneth Arrow (as cited in Sarasvathy, 2000) that the evidence to date has failed to overcome the null hypothesis of no difference. Given the suggested importance of the impact of entrepreneurship on economic growth and employment, one would think that public policy should focus on developing everyone possible into an entrepreneur; however, such a stance ignores the waste that results from the majority of business start-up attempts that result in failure. Indeed, the image of a hard-working visionary achieving incredible success by beating all of the odds is part of the American Dream, but in reality this is part of the entrepreneurial folklore (Brockhaus, 1980) and myths that glorify entrepreneurs (Shane, 2008). In reality entrepreneurial success is a rare occurrence (Short, Ketchen, Shook, & Ireland, 2010). Unfortunately, studies pretty much all agree that most new businesses, as high as 70%, fail (Shane, 2008) and even though some studies have found that as high as 40% of businesses survive at least eight years (Kirchhoff, 1997) this still indicates that most fail. In fact, the data indicate that most businesses in most industries fail (Dumne, Roberts, & Samuelson, 1988) and this has been the norm for decades. In addition, it is rare that a new firm puts well established firms out of business (Audretsch, 1991). Many of those few that do manage to survive do not harvest excessive profits. Studies in the mid-1990s found that two-thirds of owner-operated businesses generated less than \$10,000 in annual profits (Audretsch, 1995; Barnett, 1990; Mata & Guimaraes, 1995) and US Federal Reserve Data indicates that the typical profit for owner-managed firms was \$39,000 (Audretsch & Mahmood, 1995). The data indicates that most of the self-employed earn less than they could if they were employed by someone else (Hamilton, 2000; Uusitalo, 2001).

The reliance on data collected from all who attempt to start a successful venture has lead researchers to mistakenly generalize that, on average, entrepreneurs are overly optimistic

about the opportunities they discover (Shane & Venkataraman, 2000; Ucbasaran, Westhead, Wright, & Flores, 2010). Research argues that this excess of optimism leads to entrepreneurs limiting information searches and enhancing future forecast (Kahneman & Lovallo, 1994; Kaish & Gilad, 1991) and this enhances motivation to the point that entrepreneurs exploit opportunities without conducting sufficient analysis (Busenitz & Barney, 1997). Every success must logically follow a start-up attempt; however, an increase in exploitation of recognized opportunities does not necessarily result in an increase in success rates, failure may increase as well (Shane & Venkataraman, 2000). From this *all who try are certified entrepreneurs* viewpoint it appears that the majority of entrepreneurs blindly pursue opportunities that have odds of success far less appealing than even the least player friendly casino games. Why then, would any rational politician proclaim the economic benefits of entrepreneurship or any learned academic promote entrepreneurship as a career choice? Do college professors, who arguably give advice based on what the research indicates, want most of their students to pick a career where failure is the norm?

The problem lies in how academics classify an individual as an entrepreneur. While the actual definition, as well as the domain, has been the subject of much debate (e.g. Gartner, 1989; McKenzie, Ugbah, & Smothers, 2007; Shane & Venkataraman, 2000; Stevenson & Jarillo, 1990), academic researchers have broadly defined entrepreneurship in such a way that just about anyone can be called an entrepreneur because they recognized something that they perceived as an opportunity and took some steps toward at least evaluating the feasibility of pursuing it. Using this logic it would be possible to classify almost everyone in society as an artist, mathematician, musician, or athlete because at sometime in their life they painted something in a primary school art class, worked math problems in math class, played a musical instrument, or participated in school or playground sports. The problem with the current academic classification of entrepreneurs is that it fails to have some threshold that separates would-be entrepreneurs who mindlessly pursue heartfelt dreams from successful entrepreneurs that really do innovate, create jobs, and contribute to economic expansion. In essence, entrepreneurship researchers have included every basketball player from grade school to the NBA in the population and found statistical support for the hypothesis that basketball players miss most of their shots. In the real world one's career is the thing that they can perform effectively enough to earn a living at; therefore, a real entrepreneur is one who has been sufficiently successful at recognizing opportunities and seeing them through to fruition sufficiently to make a living doing so and create wealth in the long run. Those who tried and failed are simply would-be entrepreneurs just as 200,000 high school basketball stars become something else the day they graduate and find that they do not have a scholarship to college and nobody will pay them to play basketball. Although the study of failure is important, the actions and cognitive processes of would-be entrepreneurs should not be generalized as applying to successful entrepreneurs.

Despite the dismal data on business survival, apparently some people do become successful entrepreneurs. The data indicates that the self-employed are four times more likely to become millionaires than those who work for others (Stanley & Danko, 1996) and the US Federal Reserve Survey of Consumer Finances indicates that 93.3% of business equity in the US in 2007 was held by the top 10% of families in terms of net worth, a number that has remained around the 90% mark for about three decades, and the data also indicates that the top 1% and next 19% also hold a disproportionate percentage of the unincorporated business equity and *other* (commercial, rental, vacation) real estate (Wolff, 2007, 2010). This information provides support for the enthusiasm for entrepreneurship demonstrated by politicians and academicians; membership in the club of business ownership does appear to have its privileges. However, it also underlines the need for researchers to focus more attention on what

this small percentage does correctly instead of filling academic journals with pages of studies based on data from populations that is polluted with so much failure. MacMillan (1986) argued the importance of studying repeated entrepreneurial success to really understand entrepreneurship; however, the problem is that observing this rare subset of the business practitioner species in its natural environment is difficult. In fact, most of them live incognito as Stanley and Danko (1996) pointed out.

Arguably, successful entrepreneurs were not overconfident or overoptimistic. They were sufficiently confident and demonstrated an appropriate level of optimism about the opportunity and the adequacy of their skills, knowledge, and experience to be successful. Because a better understanding of people who have founded multiple businesses is crucial for in a free-enterprise economy (Scott & Rosa, 1996) researchers should study habitual entrepreneurs (MacMillan, 1986) because they are more theoretically interesting than those that just got lucky once (McGrath, 1996). Therefore, I concur with Kenneth Arrow, "What is the definition of an entrepreneur? Not only one who succeeds, but one who keeps on succeeding." (Sarasvathy, 2000: 7)

First, this study contributes to the literature by demonstrating the importance of researching entrepreneurial cognition by first separating the successful entrepreneurs from the would-be entrepreneurs and arguing that the findings related to entrepreneurs in the extant literature have been polluted with results from non-entrepreneurs. Second, I provide convincing evidence that researchers should not confuse serial entrepreneurship with serial successes. Third, I suggest that the parallel entrepreneur does not view his or herself as the creator of multiple businesses; but rather that they are "the business" and the multiple legal business entities are simply multiple manifestations of their entrepreneurial abilities. Finally, The most significant contribution is that I introduce the concept of pessimistic falsification as the preliminary internal phase of the metacognition process that occurs in real-life opportunity analysis and precedes the expression of optimism and the positive approach to opportunity reported in empirical studies using surveys and experimentation with business scenarios. I present a framework for viewing the opportunity evaluation process of parallel entrepreneurs where the feasibility evaluation process becomes optimistic only after the experienced entrepreneurial mind has pessimistically scrutinized it in a process similar to Popper's scientific method of falsification where the null hypothesis pre-supposes a high failure rate (Kenneth Arrow as cited in Sarasvathy, 2000).

## **LITERATURE REVIEW**

### Opportunity Recognition

Shane and Venkataraman (2000: 218) state that "The field of entrepreneurship involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluated, and exploit them". Opportunity recognition is recognized as an important trait of successful entrepreneurs (Ardichvili, Cardozo, & Ray, 2003). Pattern recognition is a key component of opportunity recognition and the cognitive representations of opportunities of experienced entrepreneurs differ from those of novice entrepreneurs (Baron & Ensley, 2006). Shane and Venkataraman (2000: 221-222) suggest that "two broad categories of factors that influence the probability that particular people will discover particular opportunities: (1) the possession of the prior information necessary to identify an opportunity and (2) the cognitive properties necessary to value it". However, Shepherd and DeTienne (2005) argue that the interaction of prior knowledge and financial reward is complex and may have a moderating effect on opportunity recognition. At any point in time, only some subset of the population will discover a given opportunity (Kirzner,

1973) because asymmetry of beliefs is a precondition for the existence of entrepreneurial opportunities (Hayek, 1945). Novice entrepreneurs envision novelty, technological and industry change; however, experienced entrepreneurs examine pragmatic issues like cash flow and risk. Learning serves as a key driver of the effectiveness of opportunity development (Short et al., 2010). Past experiences develop decision making heuristics that enhance opportunity capture (Bingham, Eisenhardt, & Furr, 2007). Because information about underutilized resources, new technology, unsated demand, and political and regulatory shifts is distributed according to the idiosyncratic life circumstances of each person in the population (Venkataraman, 2007), most novice entrepreneurs have no real concept of what it takes to develop a successful business. This supports the position that entrepreneurs, when nascent or would-be entrepreneurs are included in the definition of the class, are overoptimistic but at the same time it underlines the need to separate successful entrepreneurs from would-be entrepreneurs.

### Repeated Entrepreneurial Success

There is considerable heterogeneity among entrepreneurs in the area of opportunity recognition (Gaglio & Katz, 2001; Ucbasaran, Westhead, & Wright, 2009); considering that researcher tend to group would-be entrepreneurs and successful entrepreneurs together in their samples, the variation in business ownership experience may explain this heterogeneity (Baron & Ensley, 2006; Shane & Venkataraman, 2000; Shepherd & DeTienne, 2005; Ucbasaran et al., 2009). The importance of studying individuals who have experienced entrepreneurial success more than once is not a new concept (Alsos & Kolvereid, 1998; Birley & Westhead, 1993; Lamont, 1972; Westhead & Wright, 1998); however, at least at first glance, the finding are mixed. Where Alsos and Kolvereid (1998) found the parallel entrepreneurs had a higher probability of venture implementation than novice and serial founders Birley and Westhead (1993) found no difference in terms of performance between novice, habitual, and serial founders. It is important to note that these findings are not contradictory findings. Alsos and Kolvereid (1998) were examining the new business gestation process from opportunity recognition to implementation whereas Birley and Westhead (1993) were comparing performance in established firms. The fact that the firms in the Birley and Westhead (1993) study had successfully navigated through the start-up process and were operating as ongoing business concerns entails that they had graduated from would-be entrepreneurs status to experienced entrepreneurs. If anything, this supports the importance of controlling for experience when analyzing samples in entrepreneurship research.

It should be noted that the terminology is inconsistent across the entrepreneurship literature. Inexperienced entrepreneurs are often referred to as *novice* or *nascent* entrepreneurs; emphasizing the importance of preserving the title of entrepreneur for those that have demonstrated success I categorize them as would-be entrepreneurs. The terms *repeat* and *habitual* are used to classify individuals that have started up more than one business; however, these terms have been used to describe both those who own multiple businesses concurrently and those who start a new business after exiting or closing an existing business. Individuals that start another business while they are still operating a business that they started or acquired are labeled *parallel* or *portfolio* entrepreneurs. Those who start a business and then move on to start another business are described as *serial* or *sequential* entrepreneurs.

### Serial Entrepreneurs

The inspiring concept of the habitual or serial entrepreneur being motivated by the challenge of bringing a recognized opportunity to fruition but disinterested in managing the

business once established is discussed in the literature (MacMillan, 1986; McGrath, 1996; Scott & Rosa, 1996) and there are certainly documented examples. But serial entrepreneurship is quite common, maybe as high as one-third of existing business are owned by people who had previously started a business, (Baird & Morrison, 2005; Birley & Westhead, 1993; Kolvereid & Bullvag, 1993) and empirical evidence suggest that there may be additional reasons for the serial entrepreneurship phenomenon. The reason for leaving the first business could range from selling the firm due to the boredom of routine management tasks after the excitement of a business start-up, to termination by management put in place by investors, as was the case of Steve Jobs at Apple and Sandy Lerner at Cisco Systems, to failure of the firm. While it is true that serial entrepreneurs do have entrepreneurial experience, further inquiry is needed to understand if a difference might exist between parallel entrepreneurs and serial entrepreneurs.

Extant literature indicates that examination of both the capabilities and motivations of serial entrepreneurs is necessary. Wright, Robbie, and Ennew (1997b) found that venture capitalists do not uniformly embrace serial entrepreneurs and that care should be taken in assessing experienced entrepreneurs. The same researchers identified three types of serial entrepreneurial behavior namely *venture repeaters*, *organic serials*, and *serial dealmakers*; distinguished by the motivations and the methods used to develop their ventures. Evidence from this study also indicates that the role of active investors varies according to the type of serial entrepreneur and venture (Wright, Robbie, & Ennew, 1997a). Westhead, Ucbasaran, and Wright (2003) suggested that novice and serial entrepreneurs were similar in terms of growth prospects and less likely to express dimensions of entrepreneurial behavior (Westhead, Ucbasaran, & Wright, 2005). Recently, these researchers found that serial entrepreneurs were overly optimistic and less capable of reflecting on failure (Ucbasaran, Westhead, & Wright, 2011). In at least some cases serial entrepreneurs are would-be entrepreneurs that got lucky once (McGrath, 1996).

Studying small owner-operator corporations, under 500 employees, Baird and Morrison (2005) found evidence from bankruptcy filings in one federal district court that serial entrepreneurs use bankruptcy reorganization laws, Chapter 11, to protect their personal credit record while forcing renegotiation of personal guarantees they were initially forced to make with creditors and the IRS during the business start-up. They also found 85% of the businesses in the sample were serial entrepreneurs and were able to determine that 45% had previously started a business that failed. In 70% of the cases the owner-operators started another business, or simply moved operation to another corporation they had previously established, and in 60% of the cases the new business was similar to the one shutdown during or after the Chapter 11 bankruptcy process. Although Chapter 11 is a reorganization process intended to put debt collectors and landlords at bay and keep supplies flowing to preserve the business as a going concern, Baird and Morrison (2005) found that almost all the small corporations in the sample ceased operation. The point of the study was why owner-managers used this legal process if business closure was the apparent plan. They determined that for owner-operators the bankruptcy process was more a delay and renegotiation tactic used as a means of self-employment preservation. Although only a very small portion of small businesses that fail go through the bankruptcy process the fact that the vast majority of owner-operators that used the process could be classified as serial entrepreneurs indicates a need for a better understanding of serial entrepreneurs.

While there are competent entrepreneurs that successfully started a business and leave to start-up subsequent successful businesses (Gompers, Kovner, Lerner, & Scharfstein, 2010), the evidence suggests that not all serial entrepreneurs do it just because they are good at it. This dictates that researchers must take care when generalizing the findings from a sample of

serial entrepreneurs as best practices.

### Parallel Entrepreneurs

A review of the entrepreneurship literature might lead one to believe that ownership of more than one business at a time is quite rare, Alsos and Kolvereid (1998: 101-102) stated that "It is, however, now becoming widely appreciated that some parallel/portfolio founders own two or more businesses at the same time". Given the data on the concentration of control of business equity in the US Federal Reserve Survey of Consumer Finances it appears that family ownership of multiple companies would have to be very common, at least among the wealthiest families in the US. While research that includes subjects that own multiple businesses appears to be increasing (eg. Ucbasaran, Westhead, & Wright, 2008; Ucbasaran et al., 2009, 2011; Ucbasaran et al., 2010; Westhead et al., 2003, 2005) the majority of this research has focused on comparing portfolio entrepreneurs to novice and serial entrepreneurs with the dependent variable being performance, opportunity recognition, or implementation success.

Although the empirical research on parallel entrepreneurs is limited (Westhead & Wright, 1998), Alsos and Kolvereid (1998) found that parallel entrepreneurs take a less hurried approach and have a higher probability of venture implementation than both novice and serial founders. Westhead et al. (2003) suggested that portfolio entrepreneurs, on average, appear to offer more attractive growth prospects than novice and serial entrepreneurs and portfolio entrepreneurs were more likely to express dimensions of entrepreneurial behavior (Westhead et al., 2005). Ucbasaran et al. (2011) found that while portfolio entrepreneurs are realistic and learn from their failures, serial entrepreneurs were found to be overly optimistic and less capable of reflecting on failure. Parallel entrepreneurs have been found to have easier access to external financing (Lamont, 1972) and this may be due to the accumulation of tacit knowledge (Polanyi, 1983) about business start-up as well as technical and commercial information that can only be gained through personal experience (Star & Bygrave, 1991); both would certainly enhance entrepreneurial intuition (Armstrong & Hird, 2009; Mitchell, Friga, & Mitchell, 2005) and entrepreneurial intentions have been empirically determined to derive from perceptions of feasibility and desirability (Krueger, 1993). Therefore, experience entrepreneurs can be expected to carry out business start-up processes differently from those without experience (Alsos & Kolvereid, 1998) which supports the idea that entrepreneurs think differently (Busenitz & Barney, 1997; Krueger, 1993; Krueger & Brazeal, 1994; Palich & Bagby, 1995). Building on the work of Ericsson and Charness (1994), Krueger (2007) argues that successful entrepreneurs can be characterized by an expert mind-set and experts typically organize or structure the content differently; however, not all successfully make the transition from novice to expert. Therefore, it is vital to the understanding of the entrepreneurial element that we study successful entrepreneurs, those who succeed and keeps on succeeding (Kenneth Arrow as cited in S. D. Sarasvathy, 2000), and parallel entrepreneurs have proven their ability in that respect.

### Why Own Multiple Businesses?

Scott and Rosa (1996) suggested that the limits of firm-level analysis have been reached in small business research and urged researchers to focus on the invisibility of real wealth creating activities and the results of multiple ownership. But, why do entrepreneurs who own a successful ongoing concern deflect their time, human capital, and financial resources toward starting or acquiring other businesses? Birley and Westhead (1993) suggest that multiple business ownership results from a growth strategy while Alsos and Kolvereid (1998) add that additional businesses may be a strategy for tax reduction. From a legal perspective, Baird and

Morrison (2005) point out that it is not uncommon for a company, for example a restaurant, to incorporate each location as a unique corporate identity. Each of these explanations has merit and they may in fact be intertwined. However, it should be noted that the tax reduction strategy motivation suggested by Alsos and Kolvereid (1998) in their study in Norway will likely vary from country to country. In the US for example, the profits of wholly owned separate corporations flow-through the parent corporation untaxed, as do the profits from Type S corporations to their shareholders, to accumulate in one entity. This eliminates any advantage gained by having the profits of several entities separate in a stepped income tax system. While individuals and groups of individuals can do business as unincorporated sole-proprietors or unincorporated partnerships, incorporating the business so that it stands as its own corporate person provides some degree of personal protection from legal liability and debt collection in the event of an accident, defective products, or business failure. In the US, the special tax treatment given to Type-S corporations avoids the issue of double taxation of corporate profits as they pass through to shareholders in the form of dividends and the Type-S corporation is the most common. The only negatives of incorporating a small enterprise are the minimal initial fees to file a corporation with the Secretary of State in the chosen state, the annual corporate license tax that is usually based on the assets held by the corporation, and the requirement to hold and document annual meetings. According to the IRS (2005) Type S corporations are significant participants in the US economy:

S corporations are entities whose income and deductions pass through the corporate structure to the shareholders. Since the mid-1980s, the number of S corporations has risen rapidly, growing from 724,749 in 1985 to 3,154,377 in 2002. The growth rate has been even faster among S corporations with more than \$10 million in assets. From 1985 to 2002, the number of these larger S corporations grew more than ten-fold, from 2,305 to 26,096....S corporations are now the most common corporate entity. In 2002, the latest year for which data is available, S corporation returns accounted for 59 percent of all corporate returns filed for that tax year. Two million S corporations reported net income of about \$248 billion and 1.2 million S corporations reported net losses of about \$63 billion.

Some states have added new hybrid forms of doing business that include Limited Liability Companies (LLC), Limited Liability Partnerships (LLP), and Professional Associations (PA) that may be treated for federal tax purposes either as partnerships or Type S corporations. In effect these provide the same legal liability protections while still providing some ownership transfer restrictions that a small company or group of licensed professionals might need in events such as death or exit of an owner.

The purpose for this discussion is that it points out a need to examine the reasons for multiple business ownership, when the criterion is multiple legal operating entities, when identifying parallel entrepreneurs. There are liability and credit reasons that a person who sells auto parts in three locations may want to hold each as three separate corporations, yet they are still operated in practice as the same business. Is this really parallel entrepreneurship? On the other hand, a person who owns a 15 minute oil change company, a restaurant, and an insurance agency might be a more interesting research subject and meet the criteria of repetition of entrepreneurial experience with an entirely new company (Wright et al., 1997b).

The research on multiple business ownership is sparse; however, in a study of 600 small business owners in the UK, Rosa, Carter, and Hamilton (1996) found that 19.6% of men and 8.6% of women owned more than one business. Although not extensively researched, farmers have often pursued multiple ventures simultaneously (Alsos & Carter, 2006; Carter,

1998, 1999, 2001). The extant literature provides little empirical insight into why an individual would want to own multiple businesses but intuitively growth and risk management would be logical explanations. It is likely that there are numerous explanations that are context specific to the individual entrepreneur's situation. For example, individuals who already own a business may inherit an existing business that generates a reliable income stream. Clearly a business owner that recognized the likely decline in business due to changes in market dynamics or technology shifts would be motivated to establish alternative income streams. Then there are likely seasonal issues that come into play also. One can imagine that an owner-operator of a ski rental business would have the need for supplemental income during a significant portion of the year. Beyond these situations, I posit that the initial journey into multiple business ownership is usually the result of an individual having a stable business where reinvestment would not significantly increase the profits because of market saturation. If the second business is successful, then the entrepreneur becomes aware that his or her core competence is the ability to successfully manage a business. Therefore, I propose.

*P1: Parallel entrepreneurs do not consider themselves as parallel entrepreneurs. They envision themselves as one multifaceted business entity.*

In this stream of inquiry it might also be fruitful to explore issues of locus of control and the entrepreneur's perception of their ability to control outcomes as motivators for investing in additional businesses that they can participate in the management of as opposed to the stocks of publicly traded companies.

## **UNDERSTANDING THE ENTREPRENEURIAL MIND**

Whether or not entrepreneurs differ cognitively from others in society has yet to be settled and the increasing stream of research on entrepreneurial cognition is examining that question from a variety of angles. I suggest, based on personal experience as a successful parallel entrepreneur and interaction with multiple entrepreneurs over a period exceeding three decades, that, in general, entrepreneurs are highly inquisitive individuals that passively evaluated opportunity on a continual basis. This process is a mental exercise similar to a math enthusiast solving Sudoku puzzles. For example, an entrepreneur may be passing through a town and realize that a common fast food restaurant does not exist and evaluate why someone local person has not invested in the franchise and consider the likelihood of success based on population, nearness to a major interstate and other pertinent criteria with no intention of actually pursuing the opportunity. Similarly, when entrepreneurs gather, they conversations discussing business opportunities usually develop. From personal experience, I am also aware that when one owns one or more businesses one is frequently pitched business investment opportunities by others; usually individuals who have a desire and passion but not the capital to pursue their vision.

*Proposition 2: The parallel entrepreneur is inquisitive and alert to opportunity by nature and continuously hones those skills by running mental evaluations of potential opportunities, small and large, encountered on a daily or weekly basis*

*Proposition 3: Only a miniscule portion of the mental evaluations of potential opportunities that the parallel entrepreneur performs mental analyzes on advance to the mental "is the opportunity right for me" evaluation stage that includes limited information gathering and rough calculations.*

While just getting lucky once (McGrath, 1996) is likely a somewhat frequent occurrence and could lead to the failure to reject Kenneth Arrow's null hypothesis of no particular set of characteristics that distinguishes individuals in terms of success or failure is interesting, Arrow's suggested definition of entrepreneurs being those who succeed and continue succeeding (as cited in Sarasvathy, 2000) is theoretically more interesting and suggest that he believes that some differences might actually exist. I concur with the position that entrepreneurs do think differently (Busenitz & Barney, 1997; Krueger, 1993; Krueger & Brazeal, 1994; Palich & Bagby, 1995). The high failure rate of business start-ups is a clear indication that success is not given and those who did succeed likely encountered numerous obstacles during the journey. Even if someone did just get lucky once the entrepreneurial experience enhances both general and specific human capital (Chandler, Lyon, & Detienne, 2005); therefore, the experience itself leads to cognitive adaptation that impacts individual self-regulation (Haynie & Shepherd, 2009; Higgins, 1997). Self-regulation is incorporated in the metacognition (Flavell, 1979; Flavell, 1987; Nelson, 1996) process in that "regulation informs the development and generation of new sense-making structures (heuristics) as a function of a changing environment" (Haynie & Shepherd, 2009: 696).

Despite the popular myth that entrepreneurs have a much higher propensity for risk than others in society, the reality is that the risk preference of entrepreneurs is scattered across the risk preference spectrum and may actually be skewed toward risk aversion (Begley & Boyd, 1987; Brockhaus, 1980; Miner & Raju, 2004; Palich & Bagby, 1995; Sarasvathy, Simon, & Lave, 1998; Stewart & Roth, 2001). Masters and Meier (1988), Palich and Bagby (1995), and Norton Jr and Moore (2006) failed to find a difference in risk propensity among entrepreneurs. But entrepreneurs have been found to be more positive about opportunity (Palich & Bagby, 1995) more intuitive (Armstrong & Hird, 2009), more self-confident (Macko & Tyszka, 2009). Macko and Tyszka (2009) did find in an experiment that want-a-be entrepreneurs were more prone to risk and while they did find some evidence of riskier choices among practicing entrepreneurs they underlined the difficulty of simulating real-life situations where actual consequences were involved. The finding that want-a-be entrepreneurs are more prone to risk supports the argument for the need to study experienced entrepreneurs because they approach opportunity and risk differently.

Drawing on Schraw and Dennison (1994), Melot (1998), and Haynie and Shepherd (2009) I argue that successful entrepreneurial experience results in one becoming more metacognitive in the way that they approach opportunity evaluation. The experience of actually starting and running a successful business enlightens one to the complexity of being the decision maker and having everything at risk and greatly enhances ones Entrepreneurial Specific Human Capital (Smith, Matthews, & Schenkel, 2009). As a result they become more intuitive (Armstrong & Hird, 2009) because experience has made them aware that there are multiple ways to formulate a response, so they are more likely to evaluate alternatives before making a decisive move and this explains the findings that parallel entrepreneurs are less hurried (Alsos & Kolvereid, 1998). Furthermore, the experience of actually experiencing the resource scarcity that is the reality for most entrepreneurial start-ups makes parallel entrepreneurs more likely to scan the environment and examine the accessibility of internal and external resources before becoming positive about a potential opportunity.

While I concur that successful entrepreneurs are more self-confident, I argue that they are not over confident about their abilities and the fact that they have had one or more successful ventures provides evidence that they are sufficiently confident about themselves. I suggest that the increased positivity or optimism observed in different studies is a result of instrumentality of the studies and the difficulty simulating the real feeling of potential loss of

time, resources, and capital. Based on not less than one dozen real-life collaborations on business opportunity evaluations, I have not witnessed optimism being the initial stance that experienced entrepreneurs take; in fact, the opposite is the norm. Experienced entrepreneurs know that failure is the most likely outcome and take a very pessimistic initial view point. It is only after sufficient eliminations of the reasons that the venture will not succeed that they become excited about the opportunity. However, the nature of the entrepreneurial spirit may inhibit researcher from exhibiting this phenomena. Is it realistic to think that someone like Donald Trump would truly reveal how they analyze a potential business deal? Because entrepreneurs view themselves as “the business” they are very unlikely to express anything but optimism to anyone that does not have “skin in the game” because they know that nobody wants to do business with a failure.

*Proposition 4: Parallel entrepreneurs take a risk adverse falsification approach to opportunity analysis where the null hypothesis is failure,*

*Proposition 5: The vast majority of opportunity analysis in the mental exercise stage fail to reject the null hypothesis of failure.*

### Is This an Opportunity for Me?

If the potential opportunity passes through the falsification phase because the entrepreneur has found sufficient evidence to reject the null hypothesis of failure this only results in a finding that it is a third person opportunity for someone. The entrepreneur then analyzes personal and associated (i.e. employees, family, network ties) human capital and access to enabling technologies, financial resources, and customer support (Choi & Shepherd, 2004; Haynie, Shepherd, & McMullen, 2009; Ucbasaran et al., 2008, 2009) against requirements of potential opportunity to evaluate if this is a potential opportunity first person opportunity for them (Haynie et al., 2009). Since opportunities are the result of information asymmetries there is always a degree of tacitness and Entrepreneurial Specific Human Capital (ESC) gained through experience and this plays a significant role in understanding the requirements of tacit opportunities (Smith et al., 2009). This ability allows parallel entrepreneurs to reduce uncertainty and dramatically improve their success rates. While would-be entrepreneurs often rush in, parallel entrepreneurs are less hurried and may use an options approach where investments are postponed until key uncertainties are resolved (Alsos & Kolvereid, 1990; McGrath, 1996)

Even if the parallel entrepreneur determines that they have access to the needed skills and resources, the entrepreneur balances the potential income stream against the personal investment of time and capital (Chandler et al., 2005). In the case of persons that have an existing business the decision is moderated by the impact that the new venture may have on the performance of current business operations. However, the moderating effect is likely very context dependent. If the entrepreneur perceives a future downturn in the existing business this would increase the perception of the new venture being beneficial. On the other hand, if the existing business is growing and in need of the entrepreneurs undivided attention the new venture would have to show evidence of extraordinary returns, relative to the existing business, and temporal urgency to warrant the investment of time and resources. Then there could also be instances where a potential opportunity could enhance the performance of an existing business. If the potential opportunity is determined to fit into the parallel entrepreneur's current situation additional resources are invested to do a formal analysis and formulate a business plan. Given that the parallel entrepreneur has an existing business this entails that he or she also has a current income stream and failure of a new venture could impact that income stream

as well as result in the loss of hard earned assets. As a result, experienced entrepreneurs are likely to establish a business plan that could be categorized as entrepreneurial fishing where specific parameters are established for the investment of resources and the performance criteria required at each stage of the process. I derive the entrepreneurial fishing term from personal experience with a successful entrepreneur who set detailed guidelines for investing employee time, money, and objectives in the development of new products. He was an avid fisherman and when arriving at a new fishing spot he would clearly state how long the waters would be tested before moving on to other locations.

I also argue that parallel entrepreneurs appreciate the benefit entrepreneurship provides to the economy, the knowledge of an unexploited opportunity may actually be bothersome, and will therefore inform others of opportunities that they find that do not fit into their specific situation. In some instances they may seek a working partner that has the requisite skills but not the capital and enter into a partnership. In other cases they may enlighten someone in their network or a family member to an opportunity that they have validated but do not feel fits into their current situation. If the opportunity is not exploited by others, the entrepreneur will mentally shelf the information acquired for the event that future circumstances facilitate their ability to pursue the opportunity.

*Proposition 5: The parallel entrepreneur balances Entrepreneurial Specific Human Capital, access to resources, skills, and enabling technologies, as well as potential impact on established income streams against the potential income stream of the newly recognized opportunity when determining if the opportunity is “right for me”.*

*Proposition 6: Parallel Entrepreneurs take an options approach on opportunities determined to be “right for me” and invest in formal analysis and planning before pursuing the opportunity.*

*Proposition 7: Parallel entrepreneurs may seek working partners, inform other entrepreneurs in their network, or inform family members about opportunities that their analysis rejected the null hypotheses for but were found not to be an opportunity for them.*

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 FIGURE 1 Goes About Here  
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## DISCUSSION

This paper has pointed out the importance of truly understanding the entrepreneurial experience of the research subjects. All entrepreneurs are not created equal but the evidence on wealth accumulation strongly suggests that a few are extraordinarily accomplished. Entrepreneurial experience enhances both general and specific human capital (Chandler et al., 2005). Starting a business is difficult and the road to success contains countless landmines and resource destroying detours. As a result of this experience successful entrepreneurs are uniquely aware of the complexity that surrounds any potential business opportunity and tend to first approach opportunities from a pessimistic point of view even though they may not provide outward signs of pessimism. The reason that the extant empirical research on entrepreneurial cognition has failed to capture this important component of the entrepreneurial element that differentiates entrepreneurs from the rest of society is that researchers have incorrectly defined the population of entrepreneurs that are the disequilibrium phenomenon (Saravathy, 2000) responsible for driving innovation and economic expansion including would-be entrepreneurs,

serial failures, and successful entrepreneurs. Given that failure is the most common entrepreneurial outcome, exceeding 70% by some accounts, the empirical findings of the vast majority of studies are arguably more representative of the entrepreneurially challenged than they are of those who have demonstrated the ability to recognize opportunity and turn it into a sustainable, wealth creating enterprise. This sampling error has resulted in a misrepresentation of the characteristics of entrepreneurs in the academic literature. Entrepreneurship researchers need to follow the suggestion of Kenneth Arrow and define entrepreneurs as those who succeed and keep succeeding if they desire to understand the process of entrepreneurship and discover the entrepreneurial element that is responsible for the job creation and economic expansion.

With entrepreneurship education on the rise in business schools (Inc., 2006) it is imperative that educators understand the true nature of successful entrepreneurial cognition if they wish to instill in students the analytical abilities they need to succeed. The appropriate sample for study is those who have created more than one successful business, yet the empirical research on these successful individuals is grossly inadequate. Unfortunately, entrepreneurs are busy people and that is only amplified for those operating multiple businesses simultaneously. Reflecting on three decades of interaction with dozens of parallel entrepreneurs, I never recall any of them having extra time to participate in research. It is likely that the lack of research on parallel entrepreneurs is due to the difficulty of gaining access; however, this only exacerbates the importance of understanding how they think and underlines the important contribution that such understanding would make to the entrepreneurial literature.

Empirically, I suggest that initial research should likely proceed as semi-structured interviews focusing on past opportunity evaluations of parallel entrepreneurs or asking parallel entrepreneurs to report the opportunities discovered or presented to them in real-life over a period of three to six months and note their thoughts as they evaluate the opportunity. Initially, I can envision the use of content analysis (Barringer, Jones, & Neubaum, 2005) (Chandler & Lyon, 2001) (Gartner, 1990) (Marino, Castaldi, & Dollinger, 1989) and/or Cognitive Mapping (Barr, Stimpert, & Huff, 1992) (Bougon, Weick, & Binkhorst, 1977; Bougon, 1992; Eden, 1992; Eden, Ackermann, & Cropper, 1992; Krueger, 2005; Nadkarni & Barr, 2008; Russell, 1999; Walsh, 1995) as a research tool. However, the difficulty of extracting an internal cognitive process that these individuals likely take for granted should not be underestimated and may require the combination of multiple research methods.

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**FIGURE 1**

