ENTREPRENEURIAL OPTIMISM AND EXPERIENCE: DOES THE NATURE OF EXPERIENCE MATTER?

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Entrepreneurial Optimism and Experience: Does the Nature of Experience Matter?

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Abstract

Entrepreneurs have been found to have a greater disposition to unrealistic optimism than non-entrepreneurs. Entrepreneurial experience may, however, provide learning opportunities, thereby allowing experienced entrepreneurs to adopt a more realistic view in subsequent ventures. However, learning from experience is not straightforward. We argue that what is important is the nature of entrepreneurs’ experience. Specifically, we find that serial entrepreneurs are more likely to be optimistic than portfolio entrepreneurs. Further, we find that experiences with business failure may temper optimism by providing an opportunity for learning. However, while portfolio entrepreneurs become more realistic, serial entrepreneurs appear to be immune to the potential learning effects of failure.

Introduction

As a conservative estimate, at least half of all new businesses fail within the first four years of their establishment (Headd, 2001). One suggested explanation for these high failure rates is the high level of unrealistic optimism displayed by entrepreneurs (de Meza and Southey, 1996). Indeed, many studies have demonstrated the greater disposition of entrepreneurs to unrealistic optimism relative to non-entrepreneurs (e.g. Cooper et al., 1988; Lovallo and Kahneman, 2003; Fraser and Greene, 2006). Unrealistic optimism or the optimistic bias, is the tendency of people to report that they are less likely than others to experience negative events, and more likely than others to experience positive events (Weinstein, 1980; Weinstein and Klein, 1996; Helweg-Larsen and Shepperd, 2001).

Whether optimism is a desirable characteristic for entrepreneurs from society’s point of view is still a matter of debate. Organizational behavioralists (Luthans and Youssef, 2004) and some social psychologists (Diener et al., 1999; Seligman and Csikszentmihalyi, 2000) argue in favor of optimism. Optimistic people tend to be happier, more popular, more willing to help others, and more willing to persist in tasks (Taylor and Brown, 1988). Knight (1921) argues that in the absence of known odds for weighing up the chances of success or failure, entrepreneurs face uncertainty. Optimism may be necessary for individuals to overcome this uncertainty and engage in entrepreneurial activity (Busenitz and Barney, 1997). Dosi and Lovallo (1997) characterize entrepreneurs as “optimistic martyrs” who take probabilistically poor but socially useful gambles. In contrast, de Meza (2002) regards the optimism of entrepreneurs as a negative economic externality because optimists may overuse scarce resources and bid up prices that realists must pay, thereby squeezing out realistic entrepreneurs from factor markets. Further, some scholars argue that optimism can have detrimental effects on decision making quality (Lovallo and Kahneman, 2003). Reconciling these views, Alvarez and Busenitz (2001) suggest that the cognitive processes of entrepreneurs likely have strengths and weaknesses in various competitive environments. Supporting this argument, Hmieliski and Baron (2006) find that optimism is positively associated with venture performance but only when the entrepreneur is operating in stable industries. In dynamic industries, optimism was found to be negatively associated with venture performance.

This literature has, however, neglected consideration of the determinants of entrepreneurs’ optimism. In this article, we seek to address this gap by focusing on the role of entrepreneurial experience (i.e. business ownership experience): Are experienced entrepreneurs (also known as habitual or repeat entrepreneurs) more or less likely to display optimism? Does the nature of their past entrepreneurial
experience matter? Addressing these questions may be important in informing the debate since the insights obtained can have implications for policy development. We draw on theories from social psychology and economics to understand how entrepreneurs may or may not learn from their experience.

The relationship between entrepreneurial experience and optimism is not straightforward. The relevant literature provides conflicting arguments, which are mirrored by the available empirical evidence. Highlighting a potentially constraining influence of experience on optimism, von Hayek (1937) argued that entrepreneurs learn from experience. Over time and with experience he suggested that individuals’ subjective opinions become aligned with objective facts. This idea has been prominent in the economics tradition for some time (Fraser and Greene, 2006). For example, Jovanovic (1982) argued that those who enter entrepreneurship gradually learn about their abilities by engaging in the actual running of a business and observing how well they do. As they learn more about their abilities (through experience), their behavior changes over time. In the process of learning, some entrepreneurs will realize they were initially too optimistic about their prospects, leading to their decline and eventual exit, while pessimists or those with more realistic expectations may grow or continue their entrepreneurial career (Fraser and Greene, 2006). Therefore, one might expect optimism to decline with experience.

In contrast, some scholars argue that optimism will increase with experience. Learning often requires experience but learning from experience may not be automatic (Levitt and March, 1988). Research on human cognition reveals that prior experience can interfere with and cause biases in thinking and learning (Tversky and Kahneman, 1974; Bazerman, 1990). Some experienced individuals infer too much from limited information because they want to confirm prior beliefs (Rabin, 1998). Experience can also result in some individuals inappropriately weighting information cues, making errors combining information, and being overconfident in their judgments (Bolger and Wright, 1992; Brailey et al., 2001; Shanteau, 1992). Some experienced entrepreneurs may think they know enough (Baron, 1998) and / or may be constrained by what is familiar to them (Rabin, 1998). These studies question the ability of individuals to temper their unrealistic optimism by learning from experience. In fact, they suggest that comparative optimism may increase with experience.

The limited evidence on the relationship between entrepreneurs’ prior experience and their optimism is also mixed. While Fraser and Greene (2006) report a decline in optimism with experience, they adopt a very broad measure of optimism (a belief that one’s prospects for the coming year are better than at present). Using a more widely accepted measure of optimism, Cooper et al., (1988) found no significant relationship between prior business ownership experience and entrepreneur optimism. More recently, however, Landier and Thesmar (2006) found that among French entrepreneurs, those who had started at least one prior business were more optimistic than their novice counterparts. They argue that while optimistic individuals are likely to select into entrepreneurship, only the most optimistic entrepreneurs are likely to remain in entrepreneurial careers. In part, these differences in findings may be attributable to the samples and / or measures used. Unrealistic optimism can be measured in a number of ways but they tend to fall under one of two methods - the direct or the indirect method. The direct method asks the respondent to assess how much more or less likely it is that they will experience an event than a target person. The indirect method, on the other hand, asks the respondent to assess their own probability of an event occurring and then repeats the questions for the average person who is similar to the respondent. The preferred method is the indirect method, as it has been found to produce less unrealistic optimism and appears to be a more stable measure than direct measures of unrealistic optimism (Otten and van der Pligt, 1996; Helweg-Larsen and Shepperd, 2001). Therefore, this study also utilizes an indirect measure of unrealistic optimism. However, because the conditions under which optimism can be judged to be unrealistic or biased are rather strict, consistent with other work in the area (Helweg-Larsen and Shepperd, 2001), we use the term “comparative optimism”.

Overall, the extant theory and empirical evidence offers little help in resolving the conflicting views on the role of experience. We argue that an important way of reconciling these conflicting views and
Evidence is to examine the nature of past experience. Previous arguments and evidence fail to take account of the heterogeneity of experience. Entrepreneurs are a heterogeneous group but so are experienced entrepreneurs (Ucbasaran et al., 2006). We focus on two aspects of the nature of entrepreneurs’ experience: experiences with business failure and whether the entrepreneur has acquired his / her experience through the sequential ownership of businesses or concurrent ownership (i.e. whether they are a serial entrepreneur or portfolio entrepreneur, respectively). In essence, we argue that the nature of experience may have a bearing on the ability of the entrepreneur to learn from that experience and in turn reduce their comparative optimism. In the following section we first develop theory relating to the relationship between different types of entrepreneurial experience and comparative optimism before extending the arguments to experience with business failure.

**THEORY AND HYPOTHESIS DEVELOPMENT**

**The Optimism of Serial and Portfolio Entrepreneurs**

Entrepreneurial experience can be acquired sequentially or concurrently. Serial entrepreneurs are experienced entrepreneurs who own multiple businesses sequentially, whilst portfolio entrepreneurs are experienced entrepreneurs who own multiple businesses concurrently (also known as parallel entrepreneurs). Growing evidence suggests these two groups of habitual entrepreneurs are distinct in terms of their personal characteristics, motivations and behaviors (Westhead and Wright, 1998; Westhead et al., 2003), but the conceptual arguments for this distinction have received less attention (Ucbasaran et al., 2006). Schein’s (1978) theory of career anchors offers a potentially useful starting point. A career anchor is defined as “the pattern of self-perceived talents, motives, and values [which] serves to guide, constrain, stabilize and integrate the person’s career” (Schein, 1978: 127). A career anchor, therefore, functions as a set of driving and constraining forces on a person's career decisions and choices. These anchors evolve only when an individual accumulates occupational and life experience (Schein, 1996).

Schein (1978) found that self-employed individuals fell into one of two career anchors. The first anchor is that of autonomy / independence, which represents a desire for freedom from rules and the control of others. An autonomy–oriented individual is likely involved in one venture at a time (i.e. serially) (Katz, 1994). Evidence confirms that serial entrepreneurs are indeed motivated by autonomy (Ucbasaran et al., 2006) and an interest in gaining and maintaining control (Wright et al., 1997). The second career anchor is the entrepreneurship anchor. Individuals with an entrepreneurship career anchor are characterized by the motivation to create something new and a willingness to run risks (Schein, 1996). Further, they tend to be driven by the opportunity recognition process and / or wealth creation (Katz, 1994). The latter entrepreneurs tend to be involved in multiple ventures simultaneously (i.e., portfolio entrepreneurs). These entrepreneurs are likely to experiment with new projects because they have a restless drive for novelty and challenge (Feldman and Bolino, 2000). Portfolio entrepreneurs can experiment with innovative opportunities because they can draw upon resources from one or more of the businesses they own. They can also reduce their exposure to risk by owning multiple businesses. Rosa (1998) found that many portfolio entrepreneurs rely on partnerships that are seen as necessary to manage each business, allowing the entrepreneur to focus on identifying new opportunities. Therefore, the desire for autonomy and control prominent among serial entrepreneurs appears to be replaced with a drive for entrepreneurial opportunity identification among portfolio entrepreneurs.

Do the differences between these two types of experienced entrepreneur extend to comparative optimism? To address this question, we look to the correlates of comparative optimism in the psychology literature. A first correlate is the extent to which an individual feels in control of a situation (Helweg-Larsen and Shepperd, 2001). Evidence suggests that the more individuals believe they have personal control over an outcome, the greater their optimism. Serial entrepreneurs’ preference for control manifests itself in the choice of ownership of businesses one at a time. In contrast, since portfolio entrepreneurs own multiple businesses, it suggests that they are willing to relinquish some control. It is
unlikely that they can run multiple businesses simultaneously without delegating and receiving help from others. We may expect, therefore, that serial entrepreneurs owning a single venture will have a greater perception of control than portfolio entrepreneurs supervising multiple ventures. It follows that serial entrepreneurs will be more likely to display comparative optimism than portfolio entrepreneurs.

Alongside the perception on control, personal importance and commitment have been found to be correlated with optimism (Frank, 1935; Weinstein, 1980). In particular, greater personal commitment is associated with greater optimism. Coelho et al. (2004) argue that most entrepreneurs have considerable wealth tied up in their businesses, creating obvious emotional commitments. For serial entrepreneurs, the level of emotional and financial commitment to a single venture is likely to be higher than that for a portfolio entrepreneur because serial entrepreneurs have an undiversified portfolio as reflected in the amount of personal funds invested in their ventures. Serial entrepreneurs invest significantly more in an individual business than portfolio entrepreneurs (Westhead et al., 2003). The implication is that serial entrepreneurs are likely to have a higher personal and financial commitment to their ventures. Hence:

Hypothesis 1: Serial entrepreneurs will be more likely to be comparatively optimistic than portfolio entrepreneurs.

Experience with Failure and Optimism

In financial terms, business failure occurs when a fall in revenues and/or rise in expenses are of such magnitude that the firm becomes insolvent and is unable to attract new debt or equity funding; consequently, it cannot continue to operate under the current ownership and management (Shepherd, 2003). McGrath (1999) defines failure more broadly as the termination of an initiative that has fallen short of its goals. The latter definition of business failure is employed in this study as it largely encapsulates the former.

Sitkin (1992) argues that failure represents a “clear signal” that facilitates the recognition and interpretation of otherwise ambiguous outcomes. Such a signal can encourage learning because the individual is forced to understand what went wrong. Further, experience of failure can generate behavioral abandonment and encourage the search for new knowledge (Louis and Sutton, 1991; March, 1991). These effects of failure may encourage the entrepreneur to be more realistic about their own skills and their expectations for their subsequent venture(s). To take advantage of the potential learning benefits associated with business failure, an individual must re-enter business ownership (i.e. become a habitual entrepreneur). Therefore, we might expect habitual entrepreneurs who have experienced business failure to be less prone to comparative optimism than those who have not experienced failure. Evidence from other domains (e.g. car crashes, health problems) supports this view. Past experience with a negative event appears to decrease optimism (Perloff, 1983; Weinstein, 1987; Burger and Palmer, 1992; Van der Velde et al., 1992). In contrast, not having experienced a negative event appears to promote optimism (Weinstein, 1987). This may be because individuals believe their past is indicative of the future (Weinstein, 1987). If a negative outcome has not yet been experienced, the individual may feel “exempt” from it ever occurring (Higgins et al., 1997). Prior experience with a negative event may, however, make it easier for the individual to imagine themselves in the failure situation due to the “availability” of past failure experiences (Frieze et al., 1987). Hence:

Hypothesis 2: Entrepreneurs who have experienced business failure will be less likely to be comparatively optimistic than those who have not.

Optimism, Failure and Serial and Portfolio Entrepreneurs

The positive learning effects of failure discussed above have, however, been questioned (Brunstein and Gollwitzer, 1996). Personal failure is a significant event for the self (Brown et al., 2001), and such
circumstances are known to be potent elicitors of emotions (Ben-Ze’ev, 2000; Frijda, 1986; Lazarus, 1986; Ortony et al., 1988). Shepherd (2003) argues that the failure of a business to which one is emotionally attached can generate negative emotions that are consistent with grief over the loss of a loved one (Shepherd, 2003). These strong emotions, in turn, may interfere with learning (Brown, 2000). Maintaining unrealistic optimism may be a coping strategy following a negative event as it can maximize feelings of personal control and minimize the sense of vulnerability (Janoff-Bulman, 1989). Indeed, attribution theories, first developed by Heider (1958), suggest a number of cognitive processes influence how and the extent to which individuals evaluate and learn from their experiences. Heider’s (1958) model of attribution suggested that people attempt to enhance or protect their self-esteem by taking credit for success (internal attribution) and denying responsibility for failure by attributing this to external factors (external attribution). These views suggest that experience with failure may not temper optimism. Other aspects of experience may moderate the effects of failure on optimism. We argue that a key aspect relates to the manner in which experience is acquired, i.e., serially or concurrently.

Differences in attitudes and motivations among serial and portfolio entrepreneurs may also have implications for how they respond to business failure. While serial entrepreneurs, on average may be more likely to be comparatively optimistic, experiences with failure may induce realism. However, the greater personal commitment serial entrepreneurs likely display towards their ventures may result in a stronger emotional response to failure than that experienced by portfolio entrepreneurs. If a business fails, a portfolio entrepreneur may feel less of a sense of loss than a serial entrepreneur because the former has other businesses to fall back on. As intimated earlier, the highly emotional sense of loss associated with business failure may interfere with the learning process.

In contrast, the favorable attitude towards opportunity identification and experimentation displayed by portfolio entrepreneurs may result in them being more likely to adopt “real options reasoning” (McGrath, 1999). This reasoning is based on the notion that as information becomes available about uncertain projects, investors can choose to inject further funds or terminate the project. McGrath (1999) argues that the key issue is not avoiding failure (given the potential learning benefits) but managing the cost of failure by limiting exposure to the downside while preserving access to attractive opportunities. Some of the practices of portfolio entrepreneurs are indicative of real options reasoning. Rosa (1998) found that for many portfolio entrepreneurs, diversification into new businesses was driven by the entrepreneur’s alertness to new opportunities and a readiness to act. Further, new businesses were often piloted before any serious resources were committed. With this strategy, portfolio entrepreneurs may be able to limit both the financial and emotional costs of failure. In turn, this may make it easier for them to learn from failure and adopt a more realistic approach to their subsequent ventures. In contrast, serial entrepreneurs are less likely to launch experimental ventures. Their relatively high level of emotional and financial commitment may result in an escalation of commitment, which can further increase the financial and emotional costs of failure. Consequently, serial entrepreneurs may find it more difficult to learn from failure and hence do not adjust their optimism in subsequent ventures. Instead, attribution errors and self-serving biases are likely to dominate. Therefore:

Hypothesis 3a: Portfolio entrepreneurs who have experienced failure will be less likely to be comparatively optimistic than those who have not.

Hypothesis 3b: There will be no difference in the likelihood of being comparatively optimistic between serial entrepreneurs who have experienced failure and those who have not.

DATA AND METHODS

Data and Sample
The sampling frame of firms was constructed by obtaining sampling quotas by four broad industrial categories (i.e., agriculture, forestry and fishing, production, construction and services) and the eleven Government Official Regions from summary tables detailing the population of businesses registered for Value-Added-Tax in Great Britain in 1999 (Office for National Statistics, 1999). Names and addresses of firms were purchased from Dun and Bradstreet. Non-independent businesses were removed from this list. Industry and standard region sampling proportions were identified for a stratified random sample of independent private businesses. A stratified random sampling frame of 4,324 independent firms was drawn from the cleaned list of business names.

Given the key issues under exploration in this study (i.e., the quantity and quality of opportunities identified) and the emphasis on the entrepreneur as the unit of analysis, a key informant approach was adopted (Kumar et al., 1993). A structured questionnaire was mailed during September 2000 to a single key respondent in each of the businesses in the sampling frame. Valid respondents had to have sufficient knowledge as well as an adequate level of involvement with regard to the issues under investigation (Campbell, 1955). Thus, the key respondent was a founder and/or principal owner and a key decision-maker in the business. To ensure the validity of the survey data, several questions on the questionnaire ascertained the exact status of the respondent. With reference to the validation questions, 54 respondents were identified as not being a founder and/or the principal owner of the business, and were regarded as non-respondents. Although information was not available from multiple respondents in each firm, reliability checks were conducted on key firm-level variables such as business age, employment size and legal status. Strong correlations were detected between the archival data provided by Dun and Bradstreet and the survey evidence provided by key informants. The correlations ranged from 0.77 to 0.88 suggesting that the data collected from the key informant was reliable.

During the four month data collection period, a further 17 responses were eliminated because the businesses had been acquired and they were no longer independent trading entities. After a three-wave mailing (i.e., two reminders), 767 valid questionnaire returns were obtained from a valid sample of 4,307 independent firms. Respondents who filed missing information returns to any of the selected dependent, independent or control variables were excluded from any further analysis. In total, 703 respondents provided complete data for the selected variables explored, yielding an effective response rate of 16.3%. This rate is comparable to similar studies in the field.

Using chi-square and Mann Whitney ‘U’ tests, no statistically significant response bias was detected with regard to industry, standard government official region, legal form, age of the business and employment size between the respondents and non-respondents at the 0.05 level. On these criteria, we have no cause to suspect this sample of firms is not a representative sample of the population of independent private firms in Great Britain.

Measures

Dependent Variable

To construct the dependent variable, OPTIMISM, respondents were asked two questions based on Cooper et al. (1988)’s study. First they were asked: “What are the odds of this business achieving your expectations?” Second they were asked: “What are the chances of any other business like yours succeeding?” For both questions, respondents provided an answer on a scale of 0-10, zero representing no chance of success and 10 representing certain chance of success. The response to the first question was then subtracted from the response to the second question. The difference score was then converted into a categorical variable. Accordingly, respondents with a positive difference score were categorized as comparatively optimistic and were allocated a value of ‘1’ for the OPTIMISM variable. Respondents reporting a negative or zero difference score were allocated a value of ‘0’.
Independent Variables

Experience of failure. Each respondent cited the total number of failed businesses they had owned. Business failure was deemed to have taken place if the respondent had closed or sold a business due to bankruptcy, liquidation or receivership, or if the business had been closed or sold because it failed to meet the expectations of the entrepreneur (McGrath, 1999). This information was used to create three binary variables were created in order to test hypothesis 1. Novice entrepreneurs (NOVICE) had no prior business ownership experience at the time of the survey but they had a minority or majority ownership stake in a single business that was new or purchased. By definition, these entrepreneurs have not experienced failure. Habitual entrepreneurs (i.e. entrepreneurs who have owned at least two businesses), on the other hand, may or may not have experienced business failure. A distinction was made between habitual entrepreneurs who had experienced failure (HABITUAL_fail) and habitual entrepreneurs who had not experienced failure (HABITUAL_nofail). To test hypothesis 1, the NOVICE and HABITUAL_nofail variables were included, with HABITUAL_fail representing the reference category.

Serial and portfolio entrepreneurs. A distinction was made between serial (i.e., individuals who had sold / closed a business which they had a minority or majority ownership stake in, and who at the time of the survey had a minority or majority ownership stake in a single independent business that was new or purchased) and portfolio entrepreneurs (i.e., individuals who at the time of the survey had minority or majority ownership stakes in two or more independent businesses that were new and / or purchased). Three binary variables were computed. Serial entrepreneurs were allocated a value of ‘1’, whilst other (i.e., novice and portfolio) entrepreneurs were allocated a value of ‘0’ (SERIAL). Portfolio entrepreneurs were allocated a value of ‘1’, whilst other (i.e., novice and serial) entrepreneurs were allocated ‘0’ (PORTFOLIO). Novice entrepreneurs were allocated a value of ‘1’, whilst other (i.e., serial and portfolio) entrepreneurs were allocated ‘0’ (NOVICE). The NOVICE and SERIAL variables were included in the models to test hypothesis 2. The reference category was PORTFOLIO entrepreneurs.

The failure experiences of serial and portfolio entrepreneurs. To test hypotheses 3a and 3b five binary variables were computed based on the information used to construct the independent variables listed above. These binary variables were: SERIAL_fail (i.e. serial entrepreneurs who had experienced business failure), SERIAL_nofail (i.e. serial entrepreneurs who had not experienced business failure), PORTFOLIO_fail (i.e. portfolio entrepreneurs who had experienced business failure), PORTFOLIO_nofail (i.e. portfolio entrepreneurs who had not experienced business failure) and NOVICE. To test hypothesis 3a, the above binary variables were included except PORTFOLIO_fail, which represented the reference category. To test hypothesis 3b, all binary variables were included except SERIAL_fail, which represented the reference category.

Control Variables

While the focus of this study is the relationship between experience and optimism, it was deemed necessary to control for a number of variables that might also be associated with optimism. These variables, guided by the literature, related to characteristics of the entrepreneur and the surveyed firm. Variables related to the following characteristics of the entrepreneur were controlled for: The age of the entrepreneur in years (AGE_owner); gender (GENDER); whether the entrepreneur had at least one parent who was an entrepreneur (PARENT); whether the entrepreneur came from an ethnic background (ETHNIC) and the entrepreneur’s level of education in years (EDUCATION). All variables except the age of the respondent and his/her level of education were dummy variables.

Greater levels of information can lower perceptions of risk and increase confidence in one’s decision (Weinstein and Klein, 1995). Respondents were asked to indicate which information sources they used to identify and evaluate opportunities. These information sources included suppliers, employees, customers and clients, other business owners, consultants, financiers, friends, family, magazines / newspapers, trade
publications, patent filings, technical literature, national government sources and local government agencies. The variable INFORMATION relates to the number of information sources listed above used by the respondent.

A number of firm characteristics were also controlled for. Owners of smaller and younger businesses may suffer from a greater illusion of control, which in turn may influence their level of optimism. Five binary variables were created to capture the age of the business: between 1 and 5 years old (AGE\textsubscript{1-5}); between 6 and 10 years old (AGE\textsubscript{6-10}); between 11 and 15 years old (AGE\textsubscript{11-15}); between 16 and 20 years old (AGE\textsubscript{16-20}). The reference category was businesses 20 years or older (AGE\textsubscript{over 20}). The size of the business was captured in terms of the number of full-time employees. Four binary variables were created: The business employs between 1 and 9 employees (SIZE\textsubscript{1-9}); the business employs between 10 and 49 employees (SIZE\textsubscript{10-49}); and the business employs between 50 and 249 employees (SIZE\textsubscript{50-249}). The reference group was business employing 250 or more employee (SIZE\textsubscript{over250}). We also controlled for the performance of the venture based on the last financial year prior to the survey. The corresponding variable, PROFIT, was coded ‘1’ if the business reported a profit and ‘0’ if the business broke even or reported a loss.

The external environmental context was also considered. The following six binary industry variables were computed with reference to the UK Standard Industrial Classification (SIC) codes: agriculture, forestry, fishing, and mining and quarrying (SIC 0 and SIC 2 combined); manufacturing (SIC 3); construction (SIC 5); distribution, hotels, catering and repairs (SIC 6); financial intermediaries, real estate, renting and business activities (SIC 8); and other services (SIC 9). The reference category was transport, storage and communication (SIC 7). As an additional indicator of the external environment, respondents were asked to indicate the number of competitors the surveyed business had (COMPETITION). Respondents were provided with five potential answers: “none”; “between 1 and 5 competitors”; “between 6 and 10 competitors”; “between 11 and 25 competitors” and “over 25 competitors”. Initially five dummy variables were created on the basis of the above responses. Our analysis (discussed later) revealed that only one of these variables was significantly associated with OPTIMISM, namely, “over 25 competitors”. Therefore, to simplify the analysis we create another dummy variable which took a value of ‘1’ if the surveyed business had over 25 competitors and ‘0’ if the business had 25 or fewer competitors.

RESULTS

The means and standard deviations for the dependent, independent and control variables are reported in Table 1. With reference to the correlation coefficients (also reported in Table 1), we have no cause to suspect that the reported regression models would be seriously distorted by multicollinearity. Given the binary nature of the dependent variable, OPTIMISM, probit analysis was used to test the hypotheses. Probit models showing the marginal effects of the various independent and control variables on comparative optimism are presented in Table 2.

Hypothesis 1

Hypothesis 1 states that serial entrepreneurs will be more likely to be comparatively optimistic than portfolio entrepreneurs. To test this hypothesis, the independent variables SERIAL and NOVICE were included in Model H1, with the reference group being PORTFOLIO. The significance of the SERIAL variable suggests that serial entrepreneurs are indeed more likely to be comparatively optimistic than portfolio entrepreneurs, though it should be noted that this is at the 10% level of significance. This finding suggests that hypothesis 1 is weakly supported. It is interesting to note also, that there is no significant difference between novice and portfolio entrepreneurs.

Hypothesis 2
Hypothesis 2 stated that entrepreneurs who have experienced business failure will be less likely to be comparatively optimistic than those who have not. The independent variables NOVICE and HABITUAL_{nofail} were included in Model H2. The comparator group was habitual entrepreneurs who had experienced failure (HABITUAL_{fail}). The HABITUAL_{nofail} variable is statistically significant, suggesting that habitual entrepreneurs who have experienced failure are significantly less likely to report comparative optimism than their counterparts who have not experienced failure (i.e., HABITUAL_{nofail}). The NOVICE variable, however, was not significant suggesting no difference between novice entrepreneurs and habitual entrepreneurs who have experienced failure. These results provide partial support for hypothesis 2. The experience of failure does appear to temper comparative optimism but only relative to experienced entrepreneurs who have not experienced failure.

Hypotheses 3a and 3b

Hypothesis 3a states that portfolio entrepreneurs who have experienced failure will be less likely to be comparatively optimistic than those who have not experienced failure. Model H3a included the variables NOVICE, SERIAL_{fail}, SERIAL_{nofail}, PORTFOLIO_{nofail} with PORTFOLIO_{fail} representing the reference group. To test hypothesis 3a, the significance of the PORTFOLIO_{nofail} variable was examined. The variable is significant at the p<0.01 level suggesting portfolio entrepreneurs who have not experienced failure are more likely to be comparatively optimistic than portfolio entrepreneurs who have experienced failure. Therefore, hypothesis 3a is supported.

Hypothesis 3b states that there will be no significant difference between serial entrepreneurs who have experienced failure and those who have not experienced failure. Model 3b included the variables NOVICE, PORTFOLIO_{fail}, PORTFOLIO_{nofail}, SERIAL_{nofail} with SERIAL_{fail} representing the reference group. To test hypothesis 3b, the significance of the SERIAL_{nofail} variable was examined. The variable is not statistically significant. This suggests that in line with expectation serial entrepreneurs who have experienced failure are no more likely to be comparatively optimistic than those who have not experienced failure. Therefore, hypothesis 3b is supported.

DISCUSSION AND CONCLUSION

Entrepreneurs are frequently described as suffering from an optimistic bias. Some have attributed the high failure rate of new businesses to this bias. However, what is unclear from the extant literature is whether all entrepreneurs are equally prone to this bias. In this article we have argue that a potentially important influence on entrepreneurs’ optimism is their entrepreneurial experience, and in particular, the nature of that experience. We developed hypotheses relating dimensions of entrepreneurs’ business ownership experience to optimism: whether the experience was acquired sequentially or concurrently (i.e., whether the entrepreneur is a serial or portfolio entrepreneur) and whether the entrepreneur has experienced business failure. Consistent with our theoretical expectations, our findings suggest that serial entrepreneurs are significantly (p<0.10) more likely than portfolio entrepreneurs to be comparatively optimistic. We argued that this could be explained largely by the stronger emotional and financial commitment of serial entrepreneurs to their ventures vis-à-vis portfolio entrepreneurs. Strong personal commitment has been found to be a correlate of comparative optimism.

Supporting our second hypothesis, we found experience with business failure to reduce comparative optimism. Habitual entrepreneurs who had experienced failure reported a significantly lower likelihood of being comparatively optimistic than habitual entrepreneurs who had not experienced failure. Interestingly, there was no significant difference between novice entrepreneurs and habitual entrepreneurs who had experienced failure. This suggests that experience may increase comparative optimism but only when that experience is not negative. Evidence from other domains that have found experience to reduce comparative optimism has tended to focus on negative experiences only. Future
research may benefit from considering the effects of positive experiences on comparative optimism as well.

Finally, we examined the extent to which experiences of failure had differential effects on serial and portfolio entrepreneurs. Supporting our hypotheses, we found that while experiences of failure dampened the comparative optimism of portfolio entrepreneurs, it had no effect on serial entrepreneurs. Given the higher level of personal commitment to their ventures, serial entrepreneurs may experience a stronger emotional response to the failure of a business. This emotional response, in turn, may interfere with their ability to learn from the experience (Shepherd, 2003) and temper their optimism in subsequent ventures.

These findings may help resolve a debate that has been emerging in the area of business failure. While some scholars view failure as representing an opportunity for learning (e.g. Sitkin, 1992; McGrath, 1999), others have argued that it may be difficult to learn from business failure (Shepherd, 2003). Our findings suggest that both views have some validity. The experience of business failure may indeed offer opportunities for learning, but only under certain conditions. The emotional costs of business failure may be ‘diluted’ for portfolio entrepreneurs because they have other businesses to fall back on. As intimated earlier, portfolio entrepreneurs tend to adopt an experimental approach to their ventures which may result in them making incremental investments into new ventures, minimizing the cost of failure if the business does not deliver. As such, relative to their serial counterparts, portfolio entrepreneurs may be more able to distance themselves from their ventures and adopt a more objective evaluation of them.

There are a number of limitations associated with the study, some of which offer avenues for future research. The timing and sequence of failure experiences was not considered. The timing of failure may have a bearing on how the entrepreneur makes sense of a failure. While strong emotions such as grief may be common in the period immediately after the failure, less emotional responses and interpretations of failure may ensue over time (Cannon, 1999). For serial entrepreneurs in particular, the sequence of failure in relation to other venture outcomes may be important. A serial entrepreneur whose most recent past venture was a failure may be less optimistic than one who has also experienced failure but whose most recent past venture was a success. Future studies should also consider the difficulties involved in defining success and failure. While some outcomes can be unambiguously classed as successes or failures, many outcomes fall into a ‘gray-zone’ of near-failure and near-success (Rerup, 2006). Future studies may explore the relationship between optimism and alternative definitions of success and failure.

Related to this definitional issue, future researchers could also consider the actual financial and non-financial (i.e., diminished reputation and trust) costs of business failure and their effects on subsequent optimism and behaviors. An entrepreneur who has lost his/her life savings in a business failure may exhibit greater emotional damage, constraining his/her ability to learn from that experience and moderate optimism in subsequent ventures. While we have sought to control for a number of venture-specific characteristics, what is not clear from our results is whether entrepreneurs who have experienced in failure tend to subsequently own different kinds of businesses. For example, venture opportunities identified after a failure experience may be less risky and potentially less innovative. Such ventures may ensure the entrepreneur preserves their sense of control over the venture and remain optimistic. These relationships offer future research opportunities.

Our research holds a number of implications for entrepreneurs as well as stakeholders in their businesses. While a certain degree of optimism is necessary for entrepreneurship to take place, entrepreneurs may be able to avoid or minimize the losses of business failure by keeping checks on their optimism. Entrepreneurs may benefit from developing routines that challenge their assumptions about their businesses and their competitors. Such routines may include involving others in the business to who entrepreneurs must justify their actions. For example, Forbes (2005) found that the over-confidence bias (often positively correlated with comparative optimism) was reduced when the entrepreneur’s business had external investors. Entrepreneurs should, however, also be aware that certain other routines which
are often used to minimize such biases may actually exacerbate the problem. For example, our analysis revealed that the greater the information used to evaluate opportunities, the greater was the likelihood of comparative optimism. Greater information search may actually increase the entrepreneur’s perception of control, which is positively correlated with optimism.

Our findings also have implications for policy-makers. An emerging policy debate relates to whether it is necessary to introduce initiatives that make it easier for entrepreneurs who have failed to start new businesses (e.g. making bankruptcy laws more lenient). Those who favor these initiatives implicitly assume that entrepreneurs can learn from their failures. Our evidence suggests caution. Not all entrepreneurs are equally able to learn from their failure experiences. What may be more useful is to introduce initiatives that get entrepreneurs to reflect on and make sense of their experiences as well as identifying mistakes that can be avoided in subsequent ventures.

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REFERENCES

Cambridge University Press.


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Notes. Correlations coefficients with an absolute value greater than 0.08 are significant at the 5% level.


Table 2: Probit Models for Likelihood of Comparative Optimism

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<td>SIC 9</td>
<td>-0.240 **</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.903</td>
</tr>
</tbody>
</table>

Number of observations: 703 703 703 703
McFadden R^2: 0.080 0.081 0.089 0.089
Log likelihood: -444.02 -443.15 -439.56 -439.56

Test for significance of model:
χ^2: 76.71 78.44 85.61 85.61
Prob > χ^2: 0.00 0.00 0.00 0.00

Notes:
- All marginal effects, except for the constant term.
- All variables are dummy variables except for AGE_{owner}, EDUCATION and INFORMATION.
- Reference category is habitual entrepreneurs who have experienced failure.
- R.C. = Reference Category.
- ** = Coefficient significant at 1%, * = Coefficient significant at 5%, † = Coefficient significant at 10%.