

# **Renascent Entrepreneurship**

## **Entrepreneurial Preferences Subsequent to Firm Exit**

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#### **Abstract**

Why should individuals that have exited their firm consider re-entering into entrepreneurship, i.e. become *renascent entrepreneurs*? According to the logic of economic models of firm dynamics there is no reason to re-enter into entrepreneurship following firm failure. In contrast, research on nascent entrepreneurship has shown the positive effect of entrepreneurial experience on planning a new firm start. Based on the empirical evidence from a database consisting of ex-entrepreneurs, this study shows that renascent entrepreneurship is a pervasive phenomenon in current society. Especially entrepreneurial human and social capital induce renascent entrepreneurship. In addition, the nature of the firm exit also affects the probability of renascent entrepreneurship. This study provides new insights into the role of prior knowledge and firm exit in the entrepreneurial process.

Promoting entrepreneurship has become a key instrument of policies for economic growth and employment creation. A focal point of such entrepreneurship policies is to increase the share of the labor force that would be potentially interested in entering into entrepreneurship. This preference for entrepreneurship is said to be hampered, especially in Europe, by the stigma on failure (European Commission 2002). Many people may be uncertain about their entrepreneurial skills, and this uncertainty becomes more constraining when a failed start-up is highly stigmatized.

Many scholars have focused on the uncertainty involved in entrepreneurial activity that deters entrepreneurship. In the logic of the Jovanovic (1982) and Lippman and Rumelt (1982) models of firm dynamics, individuals are uncertain about their actual entrepreneurial abilities. They can only learn about their actual entrepreneurial abilities through the process of starting a new firm. Only by starting a new firm and observing the subsequent performance is a nascent entrepreneur able to learn about her endowment of entrepreneurial talent. The firms of entrepreneurs with inferior skills ultimately exit. Thus, an important implication of these models of entrepreneurship is that a positive entrepreneurial performance subsequent to startup will lead the entrepreneur to infer that she has a strong endowment of entrepreneurial skills, which will lead her to persist as an

entrepreneur. By contrast, those startups with a poor performance will lead entrepreneurs to infer that they have only an impoverished endowment of entrepreneurial skills and will tend to exit out of entrepreneurship. Thus, the nascent entrepreneur can only learn about her true but unobservable underlying endowment of entrepreneurial skills by inferences gleaned from the actual entrepreneurial performance. Those entrepreneurs learning from actual entrepreneurial experience that they have only impoverished endowments of entrepreneurial skills select themselves out of entrepreneurship, while those learning that they have rich endowments of entrepreneurial skills remain in entrepreneurship.

A second important implication of these models of firm dynamics is that once an individual has learned that she has a paucity of entrepreneurial skills, there is no reason to subsequently (again) become a nascent entrepreneur. According to these models, the (lack of) underlying entrepreneurial skills would already have been revealed through the entrepreneurial experience. Thus, there would be little incentive to (re-)enter into entrepreneurship, or what we term here as *renascent entrepreneurship*.

However, a number of empirical studies have consistently found a positive effect of entrepreneurial experience on the preference to start again as a business owner. If such ex-entrepreneurs had already learned that they did not possess a strong endowment of entrepreneurial skills, why would they re-enter into entrepreneurship? The purpose of this paper is to resolve this empirical paradox and to challenge both the passive view of entrepreneurial learning along with the high propensity for renascent entrepreneurship.

In the second section of this paper we present a model of entrepreneurship. The third section presents a review of empirical studies on nascent entrepreneurship. Next, the research method and data are described. In the fifth section a logistic regression models are estimated to explain why some ex-entrepreneurs become renascent entrepreneurs, while others abstain from renascent entrepreneurship. In the final section a summary and conclusions are presented. In

particular, we find that the propensity for ex-entrepreneurs to become renascent entrepreneurs is not homogenous, but rather systematically related to the capacity to absorb knowledge and learn from previous entrepreneurial experience.

### **A Model of Entrepreneurship**

The links between nascent entrepreneurship and entrepreneurial performance are depicted in Figure 1. As the literature has documented (Parker, 2004, 2005), the average return accruing from starting a new firm, at point A, lies below the wage that could be earned working in an incumbent firm. However, the performance differential between the returns to entrepreneurship and wages earned working in an incumbent firm do not remain constant over time, but may increase or decrease. While the entrepreneurial decision occurs within a relatively narrow lapse of time, the entrepreneurial process involves the evolution of the new firm from birth towards maturity and firm exit. The entrepreneurial process may result in a return far exceeding that expected from wages earned in an incumbent firm, as depicted by point D, or alternatively, in a return far below the benchmark wages, at point C. Thus, as Knight (1921) pointed out, the entrepreneurial process is shrouded in uncertainty and risk.

FIGUR 1 ABOUT HERE

Figure 1 suggests that the entrepreneurial performance outcomes are inherently uncertain in that they result in alternative outcomes, as depicted by C or D (Audretsch et al., 2006). Once an individual has attained point C, she is confronted with the decision of re-entering into entrepreneurship, again at point A (i.e. renascent entrepreneurship).<sup>1</sup> We expect that the

entrepreneurial experience is of little value for the wage earned at an incumbent<sup>2</sup>, and thus does not affect the wage level (curve) after firm exit.

Within the economics literature, the prevalent theoretical framework has been the general model of income choice, which has been at times referred to as the model of entrepreneurial choice (Evans and Jovanovic, 1989; Parker, 1996). The model of income or entrepreneurial choice dates back at least to Knight (1921), but was more recently extended and updated by Lucas (1978), Kihlstrom and Laffont (1979), Holmes and Schmitz (1990) and Jovanovic (1994). In its most basic rendition, individuals are confronted with a choice of earning their income either from wages earned through employment in an incumbent firm or else from profits accrued by starting a new firm. The essence of the model of entrepreneurial choice is made by comparing the wage an individual expects to earn through employment,  $W$ , with the profits that are expected to accrue from a new-firm startup,  $P^*$ . Thus, the probability of starting a new firm,  $P(s)$ , can be represented as:

$$(1) \quad P(s) = f(P^* - W)$$

According to the Jovanovic (1982) and Ericson and Pakes (1995) theories of firm dynamics and selection, entrepreneurs may start a new firm at a small, even suboptimal, scale of output, and then, if merited by subsequent performance, expand as depicted by the evolution from point A to D. The firms of entrepreneurs that observe a positive performance, as reflected by  $P^*$ , will grow, whereas those that are not successful will remain small and may ultimately be forced to exit out of entrepreneurship.

An important implication is that if an entrepreneur infers from a positive performance that she has an underlying high endowment of entrepreneurial skills, she will continue with entrepreneurship. By contrast, if she infers from a poor performance that she has an impoverished endowment of entrepreneurial skills, she would revise  $P^*$  downward. This would make exit out of

entrepreneurship more likely, as working for an incumbent firm, with wage  $W$  is becoming more attractive. In the Jovanovic (1982) theory of passive learning,  $P^*$  is likely to be revised downward just before firm exit, and there is no reason that  $P^*$  would increase anymore.

By contrast, we suggest that  $P^*$  can actually increase as a result of entrepreneurial experience. If the entrepreneur learns not just about the original endowment of entrepreneurial skills, but also how to augment these original entrepreneurial skills, then  $P^*$  will not remain invariant to the entrepreneurial experience, but will actually be higher as a result of the entrepreneurial experience. In contrast to the original Jovanovic (1982) theory, this second type of learning would suggest that ex-entrepreneurs would indeed contemplate re-entering into entrepreneurship, becoming reascent entrepreneurs. Evidence of the latter suggestion would reject the null-hypothesis that ex-entrepreneurs do not have entrepreneurial preferences anymore.

### **Literature Review on Nascent Entrepreneurship**

In the last decade a number of studies on the characteristics of individuals that aspire or take steps to start a business have been undertaken. Table 1 summarizes the main findings in the literature linking characteristics specific to individuals to nascent entrepreneurship.<sup>3</sup> One of the most relevant findings here is the positive effect of prior entrepreneurial experience on subsequent entrepreneurial preferences. To some extent, the relationship between a personal characteristic and reascent entrepreneurship may also be similar to that with nascent entrepreneurship. We will discuss the general findings in the literature on nascent entrepreneurship in this section.

TABLE 1 ABOUT HERE

## **Human capital**

There is a long research tradition linking the role of human capital to entrepreneurship. Studies have typically found a positive relationship between general human capital and nascent entrepreneurship (Van Gelderen, 1999; Diochon et al., 2002; Kim et al., 2003; Reynolds et al., 2004; Wagner, 2005). Individuals with more education may be more willing to start a new firm because they can relatively easily find a job if the venture fails. Wagner (2005) also found evidence for Lazear's (2004) "jack-of-all-trades" theory of entrepreneurship, with a positive effect of the number of fields of experience on nascent entrepreneurship.

Prior industry experience – a factor that has a clear negative effect on firm exit (cf. Klepper, 2002; Phillips 2002; Stam et al., 2006) – is not found to have an effect on nascent entrepreneurship. It is likely that prior industry experience will only have a positive effect when the intended new business will be active in an industry that is related to this experience. This is however hard to uncover in cross-sectional analyses.

Perhaps the most relevant experience of individuals aspiring to start a business is entrepreneurial experience. In this respect, Kolvereid and Isaksen (2006) and Tamasy (2006) found a positive effect of entrepreneurial experience (i.e. having had a business before) on entrepreneurial intentions. This is quite in contrast to the logic of economic models of firm dynamics, assuming that these ex-entrepreneurs had to close their unsuccessful business. An escape from this logic would be the 'exit' of a successful business, via a merger or acquisition (at point D in figure 1). A more contrasting explanation may be that these ex-entrepreneurs have not only learned passively whether they had the necessary entrepreneurial skills. These individuals also learned actively to develop or augment their entrepreneurial skills, perhaps not sufficient for running their prior business, but promising enough for future entrepreneurial efforts.<sup>4</sup> The study by Tamasy (2006) indeed found a

positive relation between having been self-employed and having the knowledge and skills to start a business.

But how would human capital impact nascent entrepreneurship. On the one hand, it elevates  $W$ , or the opportunities available to ex-entrepreneurs in working for an incumbent organization. On the other hand, a higher level of human capital may provide the ex-entrepreneur with the absorptive capacity to learn from the entrepreneurial experience and augment the initial endowment of entrepreneurial skills. This would suggest a positive relationship between human capital and the propensity for ex-entrepreneurs to be nascent entrepreneurs.

### **Financial capital**

A series of studies (Evans and Leighton, 1989; Evans and Jovanovic, 1989; Blanchflower and Oswald, 1998) has identified that a lack of financial resources constrains new and small firms. The theory of liquidity constraints assumes that a major concern of nascent entrepreneurs is obtaining finance, which would imply that the receipt of capital (e.g. via an inheritance or gift) increases an individual's likelihood of becoming self-employed, both through the direct supply of capital and through the increased likelihood of bankers providing capital (due to the collateral provided). However, research on nascent entrepreneurship has shown mixed evidence and has generally found no effects of household wealth and income (Kim et al., 2003) but a positive effect of individual income (Van Gelderen, 1999).

### **Social capital**

Recent research also suggests that social capital may impact entrepreneurship in general and nascent entrepreneurship in particular (Davidsson and Honig, 2003; Arenius and De Clercq, 2005).

Davidsson and Honig (2003) have argued that individuals who come from families who own businesses (bonding social capital), or from community networks that own or encourage self-employment (bridging social capital), will utilize their individual level social capital resulting in more successful discovery activities (i.e. nascent entrepreneurship) than those who do not.

Davidsson and Honig (2003) as well as Kim et al. (2003) and Wagner (2005) found a positive effect of having entrepreneurial family and friends, i.e. entrepreneurial role models. This factor revealed to be negatively related to young firm exit (Stam et al., 2006).

On the one hand social capital may provide a mechanism for absorbing entrepreneurial experience and transforming it into learning and the augmentation of entrepreneurial skills, which would suggest a positive relationship between social capital and the likelihood of ex-entrepreneurs to become renascent men. On the other hand might the entrepreneurial experience gained during the career of the ex-entrepreneur become a substitute for the need of entrepreneurial social capital. Entrepreneurial social capital might also have normative effects, as ex-entrepreneurs that are active in a social environment with many entrepreneurs might feel peer-pressure for starting again.

## **Demographics**

Studies have typically found that nascent entrepreneurship tends to decline with age. For example, in an international study Blanchflower et al. (2001) found that for individuals the probability of preferring to be self-employed is strongly decreasing with age. A negative effect of age on nascent entrepreneurship has also been found in many other country studies (Van Gelderen, 1999; Diochon et al., 2002; Reynolds et al., 2004). A common interpretation of this consistent finding is that younger individuals may be more adventurous (i.e. overconfident: Forbes, 2005) and, hence, may be more likely to have entrepreneurial preferences. The incentives of an individual to

starting new firms decreases over her life span, as her expectation of collecting future payments out of entrepreneurship declines (Lévesque and Minniti, 2006).

A consistent empirical result emerging in the literature on nascent entrepreneurship is that gender matters. In particular, women exhibit a consistently lower likelihood of becoming a nascent entrepreneur than are their male counterparts (Van Gelderen, 1999; Diochon et al., 2002; Reynolds et al., 2004; Wagner, 2005).

Only a few studies focusing on nascent entrepreneurship have taken into account the geographic location of individuals. The meager evidence accumulated to date indicates that people in urban locations are more likely than their rural counterparts to become a nascent entrepreneur (Van Gelderen, 1999; Wagner and Sternberg, 2004; Arenius and De Clercq, 2005; Kolvereid and Isaksen, 2006). Due to the density of people and organizations, urban and especially metropolitan locations provide more entrepreneurial opportunities than their rural counterparts (Jacobs, 1961).

### **Exit type**

Research has identified the existence of a diversity in types of exits: for example voluntary exits to acquire a better job (Van Praag, 2003; Bates, 2005), exits due to personal circumstances, successfully selling the firm (Headd, 2003), and bankruptcy (Thornhill and Amit, 2003). It is likely that the type of exit and perhaps also the timing of the exit – either in the first crucial three years (“valley of death”) or later on – affect the entrepreneurial preferences after firm exit.

For example, successfully selling the prior firm is likely to deliver financial resources that can be used as starting capital for a restart, while bankruptcy is likely to lead to (short term) financial constraints lowering the feasibility of a restart. To a certain extent, the effects of these types of exit on entrepreneurial preferences can be interpreted with the theory of liquidity constraints. We assume that the receipt of capital due to the sale of (parts of) the prior firm also has

a positive effect on the preferences to start a new firm again. In line with this argument, we expect that entrepreneurs whose firm was closed due to bankruptcy are relatively resource constrained (they are likely to have debts, and have problems with getting bank loans in the near future) and thus less likely to intent to start again. However, research by Van der Klaauw (1998) revealed the opposite effect: entrepreneurs that went bankrupt were more likely to have entrepreneurial preferences! The study by Van der Klaauw (1998) also revealed that entrepreneurs that stopped because of personal reasons were less likely to have entrepreneurial preferences.

Concerning the timing of the exit, it may be inferred that entrepreneurs whose prior firm has survived the so-called valley of death (the first three years after start-up), have a strong belief that they possess a relatively strong endowment of entrepreneurial skills. This would suggest that they might have a higher propensity for becoming renascent men.

Summarizing, three basic propositions can be formulated based on the existing literature:

**Proposition 1:** Entrepreneurs that have had an unsuccessful firm are not likely to intend to start a firm again because they have found out that they do not have sufficient entrepreneurial skills.

**Proposition 2:** Entrepreneurs that have had a (once) successful firm are likely to intend to start a firm again, because they have found out that they have sufficient entrepreneurial skills.

**Proposition 3:** Entrepreneurs that have improved their entrepreneurial skills during a prior spell of entrepreneurship are likely to intend to start a firm again, because the expected value of future returns on entrepreneurship has increased, while it has not increased expected wage income.

The first two propositions reflect the passive learning theory, while the third proposition reflect active learning theory.

### Measurement Issues

The literature has typically not linked entrepreneurial experience to nascent entrepreneurship. Those studies that do account for entrepreneurial experience have only included a measure indicating that some experience with entrepreneurship has been accrued. However, how the prior business of the ex-entrepreneur was terminated has not been measured and analyzed. As explained in the previous section, this neglects a very important factor that may impact not just the post-entrepreneurial career in general, but also renascent entrepreneurship in particular.

Measuring entrepreneurial experience presents several challenges. We have started with a representative panel of firms that were registered as independent start-ups in 1994, 1998, 1999 and 2000 (on these panels see e.g. Bosma et al., 2004; Stam and Schutjens, 2005). The firms that did not survive were traced within one year subsequent to the closure of the business, and a number of characteristics were recorded in a survey. At the end of 2004 we had placed telephone calls to all 510 ex-entrepreneurs that had closed their business in the previous decade. We contacted 240 respondents, and collected information on several variables reflecting entrepreneurial experience, current occupations, and entrepreneurial preferences.

We thus have collected information from (at least) three points in time: the start-up of the firm ( $T_0$ ), the closure of the business ( $T_1$ ; 1 to 10 years after start-up) and a survey subsequent to firm exit ( $T_2$ ; 1 to 9 years after closure). If the firm survived more than one year, we have also gathered information each year between the start-up and the closure of the firm (the years between  $T_0$  and  $T_1$ ).

The non-response analysis revealed that there are no significant differences between the non-respondents and respondents, with the exception of age: respondents tend to be older than non-respondents, which suggests that renascent entrepreneurs (as these tend to be relatively young) were

undersampled. This response bias can be attributed to the higher mobility of younger people, which makes it harder to trace them at a known address via telephone surveys.

To measure whether an ex-entrepreneur has the (stated or revealed) preference for starting a new firm again a dependent variable has been constructed. The dependent variable to be estimated reflects whether the respondents had no subsequent preference to (re-)enter into entrepreneurship (value 1) or to (re)enter into entrepreneurship again as a control group (value 0: “renascent entrepreneurs”). Table 2 shows the distribution of ex-entrepreneurs across the different post-entrepreneurial trajectories.

TABLE 2 ABOUT HERE

The independent variables influencing the decision to be a renascent entrepreneur can be categorized into four main groups, which reflect human capital, social capital, firm exit type, and demographic (control) variables.

The human capital of the ex-entrepreneurs is reflected by several different measures. Respondents were asked to indicate the highest level of education they had completed. This variable was coded as a nominal variable with low or medium level of education as 0 and high educational attainment as 1. Two dummy variables are included which indicate whether the individual had industry experience prior to starting her firm and whether the ex-entrepreneur had started more than one firm as an indicator of prior entrepreneurial experience.

The measure of social capital reflects bonding social capital (Davidsson and Honig, 2003). The indicator of bonding ties consists of a dummy taking on the value of one if the respondent knew family or friends running their own business. This variable could also be interpreted as entrepreneurial role models, or even as “pre-market” entrepreneurial experience, and may thus also reflect an aspect of human capital (Kim et al., 2003).

Three variables are used to characterise the type of firm exit. The first variable indicates whether or not the prior firm was successfully sold (in total or parts). Firms which exit due to acquisition may be inferred to have been a success in that they exhibited (statistically significant) above average sales revenues and employment prior to exit. This variable also reflects the availability of financial capital, as it can be assumed that the sale of the firm frees financial resources for the ex-entrepreneur. In this sample 26 firm exits involved the sale of (parts of) the firm. Due to the low number of bankruptcies (only seven)<sup>5</sup> we were, in fact, not able to use this measure of “firm failure”. However, since six of the seven entrepreneurs with bankruptcy as the cause of firm exit responded that they still had entrepreneurial preferences, this variable seems to be highly relevant. A second indicator of firm exit reflects a low commitment to entrepreneurship, i.e. closure for non-business reasons. The dummy variable “exit due to personal circumstances” (like personal health or family situations) was used. The timing of the exit is reflected by the dummy variable which indicates a prior firm age of less than or equal to three years, indicating a relatively early firm exit.

The final category of variables reflects demographic characteristics of the ex-entrepreneur, and consists of gender (a dummy for male), age (a dummy for being 40 years or younger), and urban location (a dummy for being located in one of the four largest cities in the Netherlands: Amsterdam, Rotterdam, Utrecht or The Hague). These variables are included to control for demographic influences.

The SPSS statistical package was used for all statistical analyses.

## Empirical Results

In order to shed light on possible differences between the group of renascent entrepreneurs with (N=137) and the group of ex-entrepreneurs without subsequent entrepreneurial preferences (N=103), univariate descriptive statistics are provided in Table 3. Univariate non-parametric statistical tests identify statistically significant differences between the two groups of ex-entrepreneurs. Non-parametric tests have less rigorous assumptions than parametric tests, and are appropriate for the relatively small sample and nominal variables. Chi-square tests are used to identify significant differences between the two groups of ex-entrepreneurs with regard to variables measured at a nominal level.

TABLE 3 ABOUT HERE

The entrepreneurial preferences in the post-exit period range from 64% directly subsequent to firm exit to 57% during the survey a few years after firm exit.<sup>6</sup> These preferences are still considerably higher than the entrepreneurial intentions in the overall adult population in the Netherlands, which is only 37% (see Blanchflower et al., 2001).

Table 3 shows that renascent and one-off entrepreneurs exhibit statistically significant differences with regard to seven characteristics. Renascent entrepreneurs exhibit relatively high human and social capital: they have higher levels of educational attainment and have had greater prior entrepreneurial experience as well as more entrepreneurial role models. This suggests that both in a temporal and a social context, renascent entrepreneurs have been exposed to relatively high levels of entrepreneurship.

There is also evidence suggesting that the type of exit out of entrepreneurship is related to the likelihood of becoming a renascent entrepreneur. Renascent entrepreneurs are more likely to

have successfully sold their prior business but less likely to be stopped in their entrepreneurial career by personal circumstances. The prior firm age and location are not related to renascent entrepreneurship as expected. Renascent entrepreneurs are somewhat more likely to have closed their prior firm within three years subsequent to exit, although the difference is not statistically significant. In contrast to the prediction, location in an urban area actually reduces the likelihood of being a renascent entrepreneur. Finally, only a very small proportion of the one-off entrepreneurs are younger than 41 years old, and they also tend to be less often male than are their renascent counterparts.

Two binary logistic regressions are used to analyse the likelihood that an ex-entrepreneur has no subsequent entrepreneurial preferences: one with the ‘usual suspects’ from the nascent entrepreneurship literature, and one that also includes variables related to the nature of the firm exit. The logistic regression tests the probability of having entrepreneurial preferences or not.<sup>7</sup> The results are shown in Table 4.

TABLE 4 ABOUT HERE

### **Human capital**

Human capital seems to be positively related to renascent entrepreneurship. All three variables have the expected negative coefficient on being a one-off entrepreneur. Prior entrepreneurial experience has the strongest effect, followed by the general human capital indicator. The effect of prior industry experience has the expected direction, but is not statistically significant.

### **Social capital**

The social capital variable – having entrepreneurial role models – has the expected negative relationship with abstaining from nascent entrepreneurship. Ex-entrepreneurs with entrepreneurial families and/or friends seem to be persistent in their preference for entrepreneurship and are not deterred by a negative entrepreneurial episode.

### **Firm exit type**

Two of the three variables related to the type of firm exit have rather strong effects in the expected direction. The success of the prior firm is negatively related to abstaining from nascent entrepreneurship, while personal circumstances – as a reason of firm exit – are positively related to abstaining from nascent entrepreneurship. In contrast to the expectations, entrepreneurs whose prior firm has survived the valley of death are *not* more likely to be nascent entrepreneurs. The effect is even (although not statistically significant) the other way around – those entrepreneurs who terminated their business within three years subsequent to start-up are somewhat more likely to become nascent entrepreneurs. One possible interpretation is provided by McGrath (1999), who suggested that entrepreneurs view their startups as a real option and thus are not deterred from entering into subsequent entrepreneurship by terminating previous businesses early on.

### **Demographics**

The strongest variable explaining abstinence from nascent entrepreneurship is provided by the age variable – younger ex-entrepreneurs are much more likely to be nascent entrepreneurs than are older ex-entrepreneurs. However, since age is a proxy for other – yet unknown –

underlying variables, this does not provide much insight by itself. If age makes such a large difference, how does the explanation differ for older ex-entrepreneurs in comparison with younger ex-entrepreneurs? A regression was estimated on the subpopulation of older ex-entrepreneurs, which yielded largely the same result as the regression for the entire population, with one remarkable exception. Entrepreneurial preferences of older ex-entrepreneurs are not affected by entrepreneurial role models, but rather by prior industry experience. They seem to be less affected by entrepreneurial role models and more shaped by their industry experience (which of course is at best meager for younger ex-entrepreneurs). Perhaps industry veterans are more likely to maintain entrepreneurial preferences, due to a lack of other career opportunities.

The other demographic variable, gender, has no significant effect on abstaining from renascent entrepreneurship (when the nature of the firm exit is included in the regression). An urban location (with relatively high levels of nascent entrepreneurship in general) has an unexpected effect: ex-entrepreneurs living in large cities are less likely to have entrepreneurial preferences.

Our results are comparable to the only other study that analysed renascent entrepreneurship (Wagner, 2003), which also found no effect of gender, a negative effect of age, and a positive impact of entrepreneurial role models and higher education on the probability to be involved in starting a new business subsequent to firm exit. In contrast to our study, Wagner (2003) found a positive effect of the regional share of nascent entrepreneurs in general on the probability of renascent entrepreneurship.

### **Are Renascent Entrepreneurs Different from Nascent Entrepreneurs?**

While focusing on renascent entrepreneurship is new and relatively unexplored, a large literature has compiled a series of consistent, systematic findings concerning nascent

entrepreneurship. Do the factors conducive to nascent entrepreneurship affect renascent entrepreneurship in the same way?

Based on the empirical evidence presented in the previous section, the answer appears to be similar but not completely identical. Such a comparison between nascent and renascent entrepreneurship is presented in Table 5. To a large extent those factors conducive to nascent entrepreneurship have a similar impact on renascent entrepreneurship (cf. Wagner, 2003). There seems to be some type of sorting mechanism – those individuals with the ‘wrong’ entrepreneurial profile, or endowed with those characteristics that typically are not associated with becoming a nascent entrepreneur, but in fact did start a firm, are less likely to have the preference to start again subsequent to terminating the initial business. This selection mechanism essentially provides the learning referred to by the Jovanovic model – those entrepreneurs selected out of entrepreneurship have apparently learned that they are not favorably endowed with characteristics reflecting entrepreneurial talent. Indeed, almost 43% of the ex-entrepreneurs confirm the null-hypothesis of abstinence from entrepreneurship. As a result of learning about their underlying, but invisible (meager) endowment of entrepreneurial talent, these ex-entrepreneurs abstain from making the same mistake twice. In that sense, compared to novice entrepreneurs, experienced ex-entrepreneurs have gone through the filtering process that novice entrepreneurs have not yet been subjected to.

TABLE 5 ABOUT HERE

But perhaps this is a bit too deterministic. Individuals that have once entered into entrepreneurship might have two important advantages in contrast to de novo nascent entrepreneurs – first, they have accumulated entrepreneurial experience which increases the probability of having acquired entrepreneurial skills (and as a consequence a higher  $P^*$ ), and second, when they have

successfully sold their prior firm the access to financial resources increases. These two advantages make them more likely to intend to start again.

In addition, the effects of two explanatory variables are different for renascent entrepreneurs than for nascent entrepreneurs. First, gender does not make a difference for renascent entrepreneurs. Once female entrepreneurs have terminated their business, they are not less likely to become renascent entrepreneurs. This raises the question, “Does the negative female bias melt away once they have done it?” Or is this because the effect of other variables influencing entrepreneurial preferences have been controlled for, which makes the direct gender effect insignificant (as it was significant in the univariate analysis; cf. Verheul, 2005 for a discussion of this phenomenon).

Second, an urban location has a positive effect on nascent entrepreneurship in general, but it turns to a (weakly) negative effect on renascent entrepreneurship. So, once entrepreneurs have terminated a business in a large city, they are less likely than their rural counterparts to prefer renascent entrepreneurship.

## **Conclusions**

Economic models of firm dynamics (Jovanovic, 1982; Lippman and Rumelt, 1982) have provided a compelling framework for understanding and analyzing firm entry and exit. Because of the uncertainty confronting a nascent entrepreneur and her potential resource providers concerning her unobservable underlying endowment of entrepreneurial skills, some nascent entrepreneurs will be constrained from attaining their goal of entering into actual entrepreneurship. Only by being able to directly observe the actual entrepreneurial performance can inferences be made concerning the underlying entrepreneurial skills. But according to these models there would be no reason for becoming a renascent entrepreneur. Once a negative entrepreneurial experience had revealed

sufficient information to infer that the entrepreneur is not well suited for entrepreneurship, there would be little to be learned from subsequent episodes of entrepreneurship. The economics of entrepreneurship literature, however provide two exceptions here: first, a successful exit should not be considered as a failure, and even diminishes the usual liquidity constraints for the start of a subsequent new firm, and; second, older people are likely to have lower expectations of collecting future payments out of entrepreneurship. Both these effects are shown to be relevant for explaining renascent entrepreneurship in this paper. However, there still remains an anomaly of ex-entrepreneurs maintaining entrepreneurial preferences.

This paper has challenged the view of entrepreneurial learning posited in Jovanovic's (1982) model and instead suggested that, in addition to learning about the underlying endowment of entrepreneurial skills (passive learning), episodes of entrepreneurship can also augment that endowment of entrepreneurial talent (active learning). This would explain why a considerable group of ex-entrepreneurs would choose to become renascent entrepreneurs.

The findings of this paper suggest that the ability of ex-entrepreneurs to learn from their entrepreneurial experience in an endowment augmenting matter is not homogenous, but rather is shaped by characteristics that have been found to promote nascent entrepreneurship. In addition the nature of the firm exit also affects the entrepreneurial preferences subsequent to firm exit: next to the positive effect of the sale of a successful firm, exit due to personal reasons has a negative effect.

This study shows the added value of a longitudinal research design, in which not only the experience of the entrepreneur but also the performance of the prior firm is taken into account. Both issues revealed to be important in the explanation of renascent entrepreneurship. As public policy increasingly focuses on promoting entrepreneurship to generate employment, growth and global competitiveness, it is important to recognize that renascent entrepreneurs provide not just an important source of entrepreneurship, but also a source with entrepreneurial skills that may be augmented and enhanced compared to those of novice entrepreneurs. Both failed firms and

successful ones entail useful learning effects and path dependencies in the careers of serial entrepreneurs (cf. Sarasvathy and Menon 2006). Future research may reveal what distinguishes renascent entrepreneurs that have improved their entrepreneurial skills, and those that did not, and that are perhaps better characterized as ‘habitual failures’.

In order to increase entrepreneurial activity in society, government policies and programmes should aim at increasing individual awareness of the possibilities of entrepreneurial careers, as well as providing individuals with entrepreneurial experience. One way to realize this is to stimulate individuals to make the transition into entrepreneurship (once) early in their life, this will probably lead to a substantial increase in the potential supply of entrepreneurs in society, as individuals that have been an active entrepreneur once are more likely to prefer to become an entrepreneur once again than individuals that stay within the ‘employee’ status (cf. Ronstadt 1986).

## NOTES

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<sup>1</sup> The successful entrepreneur at point D may also choose to sell his firm and to start again at point A. See the case studies on serial entrepreneurship by Wright et al. (1997).

<sup>2</sup> Depending on the institutional context one could expect a positive effect of entrepreneurial experience in countries with an entrepreneurial culture, and a negative effect in countries where entrepreneurial ‘failure’ is stigmatized. Bruce and Schuetze (2004) found evidence for the latter effect: individuals with entrepreneurial experience have difficulty returning to the wage sector.

<sup>3</sup> This summary is based on: Van Gelderen (1999); Blanchflower et al. (2001); Diachon et al. (2002); Kim et al. (2003); Davidsson and Honig (2003); Reynolds et al. (2004); Wagner and Sternberg (2004); Arenius and De Clercq (2005); Arenius and Minniti (2005); Grilo and Irigoyen (2005); Van Gelderen et al. (2005); Wagner (2005); Kolvereid and Isaksen (2006). See also Davidsson (2006) for a review of empirical studies on nascent entrepreneurship.

<sup>4</sup> There might be a self-reinforcing effect, that however does take some time to develop (perhaps extending over the life course of the first business): improved entrepreneurial skills positively affect the recognition of entrepreneurial opportunities (cf. Ronstadt 1988), while the pursuit of new opportunities improve the entrepreneurial skills in a trial-and-error process.

<sup>5</sup> This low number (compared to 10 % of exits in the overall business population in the Netherlands; CBS 2005) can probably be attributed to the relatively short life span and small size of the firms in our sample, which lowers the likelihood of large debts and the subsequent need for a formal bankruptcy procedure.

<sup>6</sup> These percentages are comparable with earlier research by Stokes and Blackburn (2002), who found that almost 70% of the business owners that had to close their business claimed that they were encouraged by their experience to continue as a business owner.

<sup>7</sup> In order to test for the robustness of our results, we also estimated regressions using a sub-sample of ex-entrepreneurs with no subsequent serial entrepreneurs and a sub-sample without pre-exit serial entrepreneurs, which produced similar outcomes.

## REFERENCES

- Arenius, P. & De Clercq, D. (2005). A network-based approach on opportunity recognition. *Small Business Economics*, 24, 249-265.
- Arenius, P. & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24, 233-247.
- Audretsch, D. B., M. Keilbach & Lehmann, E. (2006). *Entrepreneurship and Economic Growth*. ew York: Oxford University Press.
- Bates, T. (2005). Analysis of young, small firms that have closed: delineating successful from unsuccessful closures. *Journal of Business Venturing*, 20, 343-358.
- Blanchflower, D. & Oswald, A. (1998). What Makes an Entrepreneur? *Journal of Labor Economics*, 16, 26-60.
- Blanchflower, D. G., Oswald, A. & Stutzer, A. (2001). Latent entrepreneurship across nations. *European Economic Review*, 45, 680-691.
- Bosma, N., Van Praag, M., Thurik, R. & De Wit, G. (2004). The Value of Human and Social Capital Investments for the Business Performance of Startups. *Small Business Economics*, 23, 227-236.
- Bruce, D. & Schuetze, H.J. (2004). The labor market consequences of experience in self-employment. *Labour Economics*, 11(5), 575-598.
- Carroll, G. R. & Mosakowski, E. (1987). The Career Dynamics of Self-Employment. *Administrative Science Quarterly*, 32, 570-589.
- CBS (2005). *Faillissementen: Oorzaken en schulden in 2004*. Voorburg/Heerlen: Centraal Bureau voor de Statistiek.

- Davidsson, P. (2006). Nascent Entrepreneurship: Empirical Studies and Developments. *Foundations and Trends in Entrepreneurship*, 2, 1-76.
- Davidsson, P. & Honig, B. (2003). The Role of Social and Human Capital among Nascent Entrepreneurs. *Journal of Business Venturing*, 18, 301-331.
- Diochon, M., Gasse, Y., Menzies, T. & Garand, D. (2002). Attitudes and entrepreneurial action: exploring the link. paper for ASAC 2002, Winnipeg, Manitoba.
- Ericson, R. & Pakes, A. (1995). Markov-Perfect Industry Dynamics: A Framework for Empirical Work. *Review of Economic Studies*, 62, 53-82.
- European Commission (2002). *Bankruptcy and a Fresh Start: Stigma on Failure and Legal Consequences of Bankruptcy*. Brussels: DG Enterprise.
- Evans, D. & Jovanovic, B. (1989). An Estimated Model of Entrepreneurial Choice under Liquidity Constraints. *Journal of Political Economy*, 97, 808-827.
- Evans, D. & Leighton, L. (1989). Some empirical aspects of entrepreneurship. *American Economic Review*, 79, 519-535.
- Forbes, D.P. (2005). Are some entrepreneurs more overconfident than others? *Journal of Business Venturing*, 20, 623-640.
- Grilo, I. & Irigoyen, J. M. (2005). Entrepreneurship in the EU: To wish and not to be. Papers on Entrepreneurship, Growth and Public Policy #01-2005, Max Planck Institute for Research into Economic Systems - Entrepreneurship, Growth and Public Policy Group, Jena.
- Headd, B. (2003). Redefining Business Success: Distinguishing Between Closure and Failure. *Small Business Economics*, 21, 51-61.
- Henley, A. (2004). Self-Employment Status: The Role of State Dependence and Initial Circumstances. *Small Business Economics*, 22, 67-82.
- Holmes, T. J. & Schmitz, J. A. (1990). A Theory of Entrepreneurship and its Application to the Study of Business Transfers. *Journal of Political Economy*, 98, 265-94.

- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Vintage Books.
- Jovanovic, B. (1982). Selection and the Evolution of Industry. *Econometrica*, 50, 649-670.
- Jovanovic, B. (1994). Firm Formation with Heterogeneous Management and Labor Skills. *Small Business Economics*, 6, 185-192.
- Kihlstrom, R.E. & Laffont, J.-J. (1979). A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion. *Journal of Political Economy*, 87, 719-748.
- Kim, P.H., Aldrich, H.E. & Keister, L.A. (2003). If I Where Rich? The Impact of Financial and Human Capital on Becoming a Nascent Entrepreneur, mimeo, University of North Carolina at Chapel Hill and Ohio State University.
- Klepper, S. (2002). The capabilities of new firms and the evolution of the US automobile industry. *Industrial and Corporate Change*, 11, 645 – 666.
- Knight, F.H. (1921). *Risk, Uncertainty and Profit*. New York: Houghton Mifflin.
- Kolvereid, L. & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, forthcoming.
- Lazear, E.P. (2004). Balanced Skills and Entrepreneurship. *American Economic Review*, 94, 208-211.
- Lévesque, M. & Minniti, M. (2006). The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, 21, 177-194.
- Lippman, S.S. & Rumelt, R.P. (1982). Uncertain imitability: an analysis of interfirm differences in efficiency under competition. *Bell Journal of Economics*, 13, 441-438.
- Lucas, R.E. (1978). On the Size Distribution of Business Firms. *Bell Journal of Economics*, 9, 508-523.
- McGrath, R.G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. *Academy of Management Review*, 24, 13-30.

- Pakes, A. & Ericson, R. (1998). Empirical Implications of Alternative Models of Firm Dynamics. *Journal of Economic Theory*, 79, 1-45.
- Parker, S. (1996). A Time Series Model of Self-Employment under Uncertainty. *Economica*, 63, 459-475.
- Parker, S. (2004). *The Economics of Self-Employment and Entrepreneurship*. Cambridge: Cambridge University Press.
- Parker, S. (2005). The Economics of Entrepreneurship, *Foundations and Trends in Entrepreneurship 1*, 1-55.
- Phillips, D.J. (2002). A genealogical approach to organizational life chances: The parent-progeny transfer among Silicon Valley Law firms, 1946-1996. *Administrative Science Quarterly*, 47(3), 474-506.
- Reynolds, P.D., Carter, N.M., Gartner, W.B. & Greene, P.G. (2004). The Prevalence of Nascent Entrepreneurs in the United States: Evidence from the Panel Study of Entrepreneurial Dynamics. *Small Business Economics*, 23, 263-284.
- Ronstadt, R. (1986). Exit, stage left why entrepreneurs end their entrepreneurial careers before retirement. *Journal of Business Venturing*, 1(3), 323-338.
- Ronstadt, R. (1988). The corridor principle. *Journal of Business Venturing*, 3, 31-40.
- Sarasvathy, S. & Menon, A. (2006). Failing firms and successful entrepreneurs: Serial entrepreneurship as a temporal portfolio. Paper for the workshop on Firm Exit and Serial Entrepreneurship, Max Planck Institute of Economics, Jena, Germany.
- Stam, E. & Schutjens, V. (2005). The fragile success of team start-ups. Papers on Entrepreneurship, Growth and Public Policy #17-2005, Max Planck Institute for Research into Economic Systems - Entrepreneurship, Growth and Public Policy Group, Jena.
- Stam, E., Schutjens, V. & Meijaard, J. (2006). Young Firm Exit: Types and Explanations. mimeo, EIM: Zoetermeer.

- Stokes, D. & Blackburn, R. (2002). Learning the hard way: the lessons of owner-managers who have closed their businesses. *Journal of Small Business and Enterprise Development*, 9, 17-27.
- Tamasy, C. (2006). Determinants of regional entrepreneurship dynamics in contemporary Germany: A conceptual and empirical analysis. *Regional studies*, 40(4), 365-384.
- Thornhill, S. & Amit, R. (2003). Learning about failure: Bankruptcy, firm age and the resource-based view. *Organization Science*, 14, 497-509.
- Van der Klaauw, B. (1998). De effecten van het beëindigen van een onderneming op toekomstig ondernemerschap. Working Paper, Vakgroep Algemene Economie, Vrije Universiteit, Amsterdam.
- Van Gelderen, M.W. (1999). *Ontluikend ondernemerschap*. Zoetermeer: EIM.
- Van Gelderen, M.W., Thurik, R. & Bosma, N. (2005). Success and risk factors in the pre-startup phase. *Small Business Economics*, 24, 365-380.
- Van Praag, C.M. (2003). Business Survival and Success of Young Small Business Owners. *Small Business Economics*, 21, 1-17.
- Verheul, I. (2005). *Is there a (fe)male approach? Understanding gender differences in entrepreneurship*. ERIM PhD thesis, Erasmus University Rotterdam.
- Wagner, J. (2003). Taking a second chance: Entrepreneurial re-starters in Germany. *Applied Economics Quarterly*, 49, 255-272.
- Wagner, J. (2005). Nascent and Infant Entrepreneurs in Germany. Evidence from the Regional Entrepreneurship Monitor (REM). University of Lueneburg Working Paper Series in Economics, No. 1.
- Wagner, J. & Sternberg, R. (2004). Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data. *Annals of Regional Science*, 38, 219-240.

Wright, M., Robbie, K. & Ennew, C. (1997). Serial Entrepreneurs. *British Journal of Management*, 8, 251-268.

Figure 1  
Entrepreneurial performance over time.

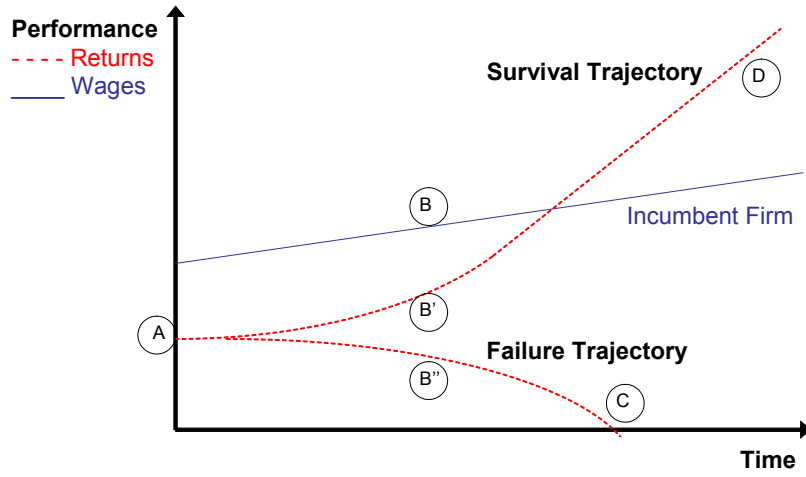


Table 1  
Characteristics influencing nascent entrepreneurship

Characteristic	Nascent entrepreneurship
<i>Human capital</i>	
Educational level	+
Prior industry experience	x
Prior entrepreneurial experience	+
<i>Financial capital</i>	
Household wealth	0
(Household) income	(0) / +
<i>Social capital</i>	
Entrepreneurial role models	+
<i>Demographics</i>	
Male	+
Age	-
Urban location	+

+ = positive effect

0 = no (statistically significant) effect

- = negative effect

x = not measured

Table 2  
Renascent entrepreneurs and one-off entrepreneurs (N=240)

	Definition	Number	%
Renascent entrepreneurs	Individuals that have a stated or revealed preference for starting a new firm after firm exit	137	57.1
One-off entrepreneurs	Ex-entrepreneurs that have no stated or revealed preference for starting a new firm	103	42.9

Table 3  
Differences between renascents and one-off entrepreneurs

Characteristics	Renascent		No preference anymore		Chi-square Statistic	Significance Level
	No.	%	No.	%		
<i>Human capital</i>						
Highly educated	59	43.1	31	30.1	3.785	0.052
Prior industry experience	63	46.7	38	36.9	2.285	0.131
Prior entrepreneurial experience	21	15.3	8	7.7	3.164	0.075
<i>Social capital</i>						
Entrepreneurial role models	52	38.0	27	26.7	3.672	0.055
<i>Nature firm exit</i>						
Sold (parts of) prior firm	20	14.8	6	6.0	4.536	0.033
Exit due to personal circumstances	23	16.8	34	33.0	8.543	0.003
Prior firm age (> 3 yrs)	29	21.1	29	28.2	1.566	0.211
<i>Demographics</i>						
Gender (female)	39	28.5	41	39.8	3.402	0.065
Age (> 40 yrs)	92	67.2	94	91.3	19.598	0.000
Urban location	8	5.8	10	9.7	1.269	0.260

Table 4  
Logistic regression models estimating abstinence from renascent entrepreneurship

Independent variable:	B		S.E.	B		S.E.
Constant	-1.497	***	.463	-1.938	***	.523
<i>Human capital</i>						
Educational level (high)	-.702	**	.304	-.769	**	.321
Prior industry experience	-.460		.300	-.389		.319
Prior entrepreneurial experience	-1.049	**	.477	-1.020	**	.509
<i>Social capital</i>						
Entrepreneurial role models	-.441		.316	-.661	*	.343
<i>Nature firm exit</i>						
Sold (parts of) prior firm				-1.220	**	.577
Exit due to personal circumstances				1.121	***	.376
Prior firm age (> 3 yrs)				.554		.359
<i>Demographics</i>						
Gender (female)	.566	*	.317	.324		.344
Age (> 40 yrs)	2.036	***	.437	2.339	***	.487
Urban location	.948	*	.559	1.186	*	.604
N			236			231
Model X <sup>2</sup>			45.430			63.005
Df			7			10
-2 Log likelihood			276.820			251.905
Nagelkerke R <sup>2</sup>			.235			.321

\* p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Table 5  
Differences between nascent and renascent entrepreneurship

Independent variable	Nascent/latent entrepreneurship	Renascent entrepreneurship
Education (high)	+	+
Industry experience	x	0
Entrepreneurial experience	+	+
Income (high)	+	x (+)*
Entrepreneurial role models	+	+
Gender (male)	+	0
Age of entrepreneur	-	-
Location (urban)	+	-

+ = positive relation

0 = no (statistically significant) relation

- = negative relation

x = not measured

\* sold prior firm