Uncertainty is inherent to the entrepreneurship process. As such, the outcomes of entrepreneurial endeavors are unknown and unknowable a priori – some will be successful and others will fail. Entrepreneurship research, however, often focuses on new ventures and the entrepreneurs who own and run them in the start-up and growth phases. As a consequence, little is known about the failure experiences of entrepreneurs.

In this dissertation I investigate how entrepreneurs interpret and respond to the failure of their firms. I focus on learning, re-entry into self-employment, and emotional recovery as important adaptive outcomes. To do this, I employ a longitudinal quantitative design to capture the interplay between the interpretation of failure, emotions, financial loss, coping behaviors, and adaptive outcomes. The results from the dissertation contribute to understanding why failure can be devastating for some entrepreneurs and not others and why some entrepreneurs learn from failure and apply their new knowledge while others do not.
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After Firm Failure
Emotions, learning and re-entry

ANNA JENKINS
Acknowledgements

Although it is not possible to put into words how much I appreciate the help and support I have received writing this dissertation, I would like to take the opportunity to thank the people who have been instrumental in my professional and personal development.

Johan Wiklund recruited me to the PhD program at JIBS. He encouraged me to study failure, gave me the freedom to develop my ideas, pushed me to be clear when expressing them and through the process of critical feedback and unrelenting support I learned how to develop and express them. I could not have imagined this process with anyone else as my supervisor.

Ethel Brundin joined my dissertation committee when I started. She encouraged me and provided me support during the toughest times. She also ensured I could collect more data than I needed.

Per Davidsson joined my dissertation committee in early 2008. He has been an inspiration ever since. I learnt about the research process from Per. His timely feedback and genuine interest in what I was doing gave me the confidence to keep writing (and re-writing). He asked the hard questions and in the process of trying to answer them I learnt more about the research process than I thought possible.

I first met Dean Shepherd at a conference in Australia in 2008. Over the last four years he has had the amazing ability to give me the encouragement to continue when I needed it most and the constructive feedback I needed to push my thinking. His work on failure inspired the research questions I asked and how I answered them. He also took on the formal role of Final Seminar Discussant asking direct and concrete questions providing me with constructive feedback for completing the dissertation.

This research would not have been possible without the willingness of entrepreneurs to share their experiences from firm failure. I will always be grateful to them. Without them, I would have been left with research questions but no way of answering them.

Henrik Hall did an amazing job collecting the data I used in this dissertation. His expertise and attention to detail meant that I had data of higher quality than I thought was possible.

This research project would have not been possible without financial support. I am grateful to Sparbankernas Forskningsstiftelse for their continued financial support, the Swedish Entrepreneurship Forum for funding for data collection.
and Handelsbanken for a travel aboard scholarship so I could spend time at the Queensland University of Technology.

Thanks also go Clas Walhbin and Helgi Valur Fridriksson who reviewed my research proposal. I also learned from working with Clas and Caroline Wigren when I joined their project on academic entrepreneurship. I am grateful for the feedback from many of my JIBS colleagues at writing labs and seminar presentations, the participants at the 2010 Advanced Seminar in Entrepreneurship and Strategy organized by EMLYON Business School and the 2011 Australian Centre for Entrepreneurship Bootcamp and Alex McKelvie, Dan Hsu and Bryan Jenkins who provided feedback on parts of the final manuscript.

I received an incredible amount of help with all aspects that relate to the practicalities of data collection. In particular, I would like to thank Linus Wennerström, Erik Wallstedt, Alexandra Henkow, Ritia Gawad, Tanja Andersson and Katarina Blåman. I would also like to thank Susanne Hansson who turned a word document into a printed book and Karen Taylor for the generosity she showed my family while at QUT.

JIBS has been a fantastic place to do a PhD. In the process of drinking too much coffee I have made many friends. I also learned so much from the many conversations I had with colleagues on sixth floor and at JIBS 2. In particular, I would like to thank Karin Hellerstedt and Erik Hunter. I asked Karin more questions and bored her with more details of my research than everyone else combined. Her insightful answers, constant support and friendship kept a smile on my face even on the days I felt like screaming. I learnt so much from Erik about how to teach. Our coke zero fikas were a welcome break from thesis writing.

I started this process with Magda Markowska, Olga Sasinovskaya and Börje Boers. Their friendship and support, including many dinners together (often cooked by Magda) made the journey so much more enjoyable.

I am also really lucky to have an amazing family. I am so grateful that my family and best friend made Jönköping a holiday destination. My parents ensured I had an excellent education and never took the fun out of learning. My sister Kate spent hours talking to me about how cool attributions are and cheered the loudest when things went well, and it was my cousin Joanna who recommended I use psychological capital.

Lili, Nazar and Ritia Gawad opened their home to me and welcomed me into their family when I arrived in Sweden. Lili has since travelled from Stockholm on many occasions to give me the opportunity to focus on the dissertation while knowing my children are in loving hands.
My family has also been my greatest inspiration. I learned from William that sometimes it is important to take a step back and carefully consider the situation before speaking. Nicholas reminded me of the benefits of being stubborn. My husband Rashid showed me what you can achieve when you do not procrastinate. He has always ensured our family had everything we needed so I could focus on writing this dissertation. It has been your love and support that kept things in perspective and made sure I completed this process.

Jönköping, October 2012

Anna Jenkins
Abstract

Uncertainty is inherent to the entrepreneurship process. As such, the outcomes of entrepreneurial endeavors are unknown and unknowable a priori– some will be successful and others will fail. Entrepreneurship research, however, often focuses on new ventures and the entrepreneurs who own and run them in the start-up and growth phases. As a consequence, little is known about the failure experiences of entrepreneurs.

In this dissertation I investigate how entrepreneurs interpret and respond to the failure of their firms. I focus on learning, re-entry into self-employment, and emotional recovery as important adaptive outcomes. To do this, I draw on cognitive-emotional theories of adaptation and motivation to capture the interplay between the interpretations of the failure, emotions, financial loss, coping behaviors, and adaptive outcomes. I employ a longitudinal quantitative design and survey owner-managers of firms that had recently gone bankrupt.

The results are presented in four empirical papers that each focus on a specific aspect of the failure experience. The findings highlight that there is substantial variance in how entrepreneurs interpret firm failure and this has important implications for how they respond. Specifically, I show that loss of self-esteem is one mechanism which transfers failure of the firm to a personal failure for the entrepreneur and this help can explain why firm failure is emotionally devastating from some entrepreneurs and not others. I also found that coping can play a mediating role between the emotional and financial costs of failure and adaptive outcomes, providing empirical support for studying firm failure as part of an on-going entrepreneurial process rather than a single isolated event.

Focusing on learning as an outcome from failure, I found that attributions for the failure influence what an entrepreneur learns from failure and through their influence on learning, motivation to re-enter self-employment. Hence, I tease out the relationship between learning from firm failure and motivation to apply what has been learned. Lastly, I consider how failure provides feedback information to entrepreneurs regarding their return to human capital in self-employment and that entrepreneurs factor this information into their decision making when deciding whether or not they re-enter self-employment.

Taken together the dissertation provides a comprehensive picture of the implications of firm failure for entrepreneurs. The dissertation contributes to understanding why failure can be devastating for some entrepreneurs and not others and why some entrepreneurs learn from failure experiences and apply their new knowledge while others do not.
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Part I

An Introductory Text
INTRODUCTION

This dissertation uses cognitive theories of emotion and adaptation to investigate how entrepreneurs interpret firm failure and the implications this has for how they feel, how they recover, what they learn, and the influence this has on their entrepreneurial motivation. The study is based on a large sample of entrepreneurs who recently owned and managed a firm that went bankrupt. With this dissertation, I aim to contribute to entrepreneurship literature and to the theories I use from psychology.

The research is presented in the form of an introductory text which contains three chapters: the introduction to the thesis, a literature review and the overarching theoretical framework, and the method of data collection. This is followed by four studies that address the research questions put forth in the dissertation. These studies are presented in article format and each article is presented as a chapter in the dissertation. The dissertation is then concluded with a final chapter that summarizes the overall findings and contributions of the research.

This first chapter is organized into eight sections. I start by introducing the general topic of firm failure to provide the background to the study. I then give an overview of the relationship between firm failure and individual outcomes with reasons why this should be studied in a systematic way. This forms the foundation for introducing the research questions of the study; followed by the specific statement of the purpose. The general research approach adopted for answering the research questions is then given. The chapter concludes with the definition of key concepts and an outline for how the remainder of the dissertation is organized.

1.1 Firm failure

To set the stage for the thesis, I first present an overview of the literature on firm failure and the different levels of analysis at which it can be studied. This provides the foundation for focusing on the implications of firm failure at the individual level of analysis.

1.1.1 Overview and importance

The very nature of the entrepreneurship process is characterized by uncertainty (Knight, 1921), experimentation (Sarasvathy, 2001; Sommer, Loch, & Dong, 2009), setbacks (Sommer et al., 2009), and constrained resources (Winborg & Landström, 2001). It is therefore not surprising that most entrepreneurial
It is well established that micro level failure can have positive implications at the societal level (Knott & Posen, 2005). New firms entering an industry increase the competitive pressures and this can spur innovation (Aghion, Harris, Howitt, & Vickers, 2001; Barnett & Hansen, 1996; fuelling the destruction in Schumpeter's creative destruction (Davidsson, 2008). High performing firms drive out low performing firms, freeing up their resources so they can be put to more productive uses (Jovanovic, 1982). High churn rates have been found to be associated with increased dynamism in the economy and positive economic development and renewal (Davidsson, 2008; Davidsson, Lindmark, & Olofsson, 1995; Pe'er & Vertinsky, 2008). There is also potential for knowledge generated by failed firms being appropriated by incumbents (Knott & Posen, 2005). Thus, on aggregate, firms that fail at the micro level act as important catalysts for positive societal level outcomes (Davidsson, 2004).

A number of explanations have been given for why more firms enter an industry than can be maintained by the market. This is known as excess entry. These include entrepreneurs being over-optimistic about their chances of success (Camerer & Lovallo, 1999; Hayward, Shepherd, & Griffin, 2006; Shane & Venkataraman, 2000) and imperfect judgment, where entrepreneurs fail to incorporate uncertainty into their decision making (Hogarth & Karelaia, 2011). The over-optimistic argument stems from research in psychology that has shown that individuals are over-optimistic about their relative abilities (Camerer & Lovallo, 1999). This encourages individuals to enter self-employment with the assumption that they will be successful even if they acknowledge that the net profit to the industry will be negative. Hogarth and Karelaia (2011) complement this approach by showing that even if entrepreneurs are, on average, not over confident, excess entry can still occur. This is because it is not possible to perfectly predict the value of an opportunity—some acted upon opportunities will generate higher than predicted returns while others will generate lower than predicted returns.

Entrepreneurs therefore enter self-employment investing their time, effort, and resources into their firms with the expectation of success. Failure represents a loss of this personal investment and is likely to have negative implications for entrepreneurs, exposing them to substantial financial, emotional, and social risks (Cope, 2003). Failure can therefore have potentially devastating effects on an entrepreneur’s well-being (Singh, Corner, & Pavlovich, 2007), resulting in reduced self-efficacy, feelings of grief, and financial loss (Cope, 2011; Shepherd, Wiklund, & Haynie, 2009b). Further, these negative effects of failure can continue to impact the entrepreneur many years after the failure event (Cope, 2011), stymie the entrepreneur from learning from the failure (Shepherd, 2003),

initiatives end in failure (Knott & Posen, 2005; Sarasvathy & Menon, 2003; Shepherd & Haynie, 2011).
and decrease the entrepreneur's motivation to re-enter self-employment (Shepherd et al., 2009b).

How an entrepreneur responds to failure can also have broader implications at the societal level. The number of individuals who choose to engage in entrepreneurship is relatively fixed in a society (Baumol, 1993). Thus, understanding the factors that influence entrepreneurial motivation after failure can have important implications for fostering the level of economic activity in society. How entrepreneurs respond to failure can also provide important signals to their wider professional and social network regarding the attractiveness of self-employment (cf. Hmieleski & Carr, 2007). While prevailing perceptions regarding stigma of failure are likely to influence how entrepreneurs interact with their network and respond to failure, how they act and feel is likely to reinforce the level of stigma and signal the attractiveness of self-employment (cf. Shepherd & Haynie, 2011).

1.1.2 Levels of analysis

Based on the preceding discussion, the implications of firm failure can be studied at different levels of analysis. Micro level firm data relating to firm entry and exit can be used to track changes in productivity growth at a macro level (Bartelsman & Doms, 2000). This includes the positive implications of excess entry on industries (Knott & Posen, 2005) and regions (Davidsson, Lindmark, & Olofsson, 1994; Davidsson et al., 1995). One explanation for the focus on macro level outcomes is improved access to longitudinal data, which tracks firm entry and exit, making it possible to link firm entry and exit with macro level outcome variables (Bartelsman & Doms, 2000), such as changes in net income of the region, welfare payments (Davidsson et al., 1994; Davidsson et al., 1995), and employment growth (Johansson, 2005). As a result, most research on firm failure has focused on the implications of firm failure at the society/macro level.

At a micro level of analysis, firm failure has been related to corporate restructuring (Thorburn, 1998). This has provided insights into factors that influence the success of different forms of restructuring (Betker, 1995). This literature, has also compared the performance of firms that have undergone restructuring with firms that have not, finding that restructured firms usually perform worse in the three years after the restructure compared to the industry average (Hotchkiss, Kose, Mooradian, & Thorburn, 2008). Most research on restructuring, however, has focused on relatively large (Thorburn, 2000) and/or publicly traded firms (Hotchkiss, 1995; Hotchkiss et al., 2008) where restructuring is a frequent outcome. As a result, a larger percentage of small firms fail than large firms (Carter & Van Auken, 2006; Keasey & Watson, 1991; Storey, 1989). In small firms, it is difficult to disentangle an entrepreneur from his or her firm (Ucbasaran, Shepherd, Lockett, & Lyon, forthcoming). Thus, a
key resource to the firm is the human capital of the entrepreneur (Alvarez & Busenitz, 2001; Shane, 2000). This suggests that the study of the implications of firm failure at the micro level of analysis should focus on the entrepreneur and how the failure impacts them. The reasons for this are elaborated on in the following section.

1.2 Firm failure and individual outcomes

Recent research in the field of entrepreneurship has focused on the negative implications firm failure can have for the self-employed. Inspired by Dean Shepherd’s founding article on learning and grief recovery from firm failure, recent case study research has begun to explore the emotions felt by entrepreneurs in the aftermath of failure (Cope, 2011; Singh et al., 2007). These studies have made significant contributions in uncovering the devastating impact failure can have on entrepreneurs and the struggle that entrepreneurs can face when rebuilding their lives after failure. In addition, these studies have acknowledged that entrepreneurs can learn from failure but may first need to recover from the negative emotions associated with failure before being able to effectively draw lessons from the failure experience (Cope, 2011; Shepherd, 2003).

Although there is debate surrounding the extent of firm failure, it is commonly accepted that failure rates for new firms are relatively high (Sarasvathy & Menon, 2003; Singh et al., 2007). Headd (2003), for example, found that failure rates for new firms may be as high as 30% during the first two years of operations. Despite these high failure rates many entrepreneurs re-enter self-employment after experiencing failure. The failed firm may also be one firm in a portfolio of firms that the entrepreneur owns and runs. The high levels of serial entrepreneurship after failure and the failed firm being a part of a larger portfolio is reflected in the observation that many more firms enter and exit the market than entrepreneurs (Sarasvathy, 2004; Sarasvathy & Menon, 2003). Thus, while some entrepreneurs fail and never try again, many other entrepreneurs re-enter self-employment after experiencing firm failure. Anecdotal evidence abounds with highly successful entrepreneurs attributing their current success to learning from past failures. Thus, the probability of success for a habitual entrepreneur is higher than the probability of success for a typical firm (Sarasvathy & Menon, 2003). This suggests that firm failure does not necessarily imply failure of the entrepreneur (Davidsson, 2008; Sarasvathy, 2004; Stokes & Blackburn, 2002).

If failure is viewed as part of an on-going entrepreneurial process, it can be seen as a temporary state that provides valuable learning opportunities for entrepreneurs (Politis & Gabrielsson, 2009). The habitual entrepreneurship and entrepreneurial learning literatures have therefore begun to focus on the role of
1 Introduction

prior failure experiences for learning (Cope, 2003; Deakins & Freel, 1998; Stokes & Blackburn, 2002; Ucbasaran, Westhead, Wright, & Flores, 2010). This is in light of the inconclusive results regarding the relationship between prior experience and firm performance, suggesting that not all entrepreneurs learn valuable lessons from previous failure experiences (Ucbasaran, Westhead, & Wright, 2006).

Findings to date therefore suggest that some entrepreneurs are able to either shield themselves from the negative implications of firm failure or they are able to quickly recover from them and re-enter self-employment. For these entrepreneurs, failure is part of the ongoing entrepreneurial process. For others, findings suggest that firm failure can have devastating effects on their well-being, which are difficult to recover from. In addition, this research suggests that there is the potential for entrepreneurs to learn from failure and apply their new knowledge. However, how entrepreneurs respond and recover from failure is likely to influence the learning process as emotions, recovery, and learning are likely to be intertwined (Cope, 2011; Shepherd, 2003).

Failure can therefore have both negative and positive components to it. To fully understand how entrepreneurs respond and recover from firm failure, systematic investigation in the implications of firm failure for entrepreneurs. The reasons for this are elaborated on in the next section.

1.3 Need for quantitative investigation

The variety in responses to firm failure from a devastating life event to an important stepping stone to future entrepreneurial success suggests a need for systematic empirical investigation into the implications of firm failure for entrepreneurs. Prior conceptual and case study research has provided an excellent platform for further investigating this (e.g. Cope, 2011; Shepherd, 2003; Shepherd et al., 2009b; Singh et al., 2007; Whyley, 1998). This research has provided important theoretical and empirical insights into how entrepreneurs respond and recover from failure. Rigorously testing these insights is an important step in determining their relevance and building conceptually and empirically sound knowledge.

Further, because research on the implications of firm failure for entrepreneurs is still in its infancy, there is substantial scope for further developing and testing conceptual models to explain why entrepreneurs may respond differently to firm failure. Quantitative investigation can provide an overarching view of the phenomenon and can be used to identify key relationships between constructs, which can help explain the variance in responses to firm failure. Empirically testing these relationships can provide a foundation and avenues for future
1.4. Research questions

To address the need for systematic knowledge regarding the implications of firm failure for entrepreneurs, I break the research down into a number of specific research questions.

As a first step, it makes sense to address what makes failure emotionally devastating for some entrepreneurs and not others. Given that grief has been established in the literature as a likely emotional response to failure (Shepherd, 2003; Shepherd et al., 2009b), as a starting point, I investigate the factors that influence the extent that an entrepreneur feels grief after experiencing firm failure. Firm failure can trigger a grief like process if the firm formed an important part of the entrepreneur’s assumptive world (Parkes, 1988) or self-definition (Archer & Rhodes, 1993). For example, firm failure can result in the loss of a role – that of an entrepreneur. It can also result in loss of self-esteem if the entrepreneur associates the failure of the firm with a personal failure. Combined, these losses can trigger a grief-like reaction (cf. Averill, 1968). An outcome of feeling grief is that individuals often withdraw from engaging in the community, stay at home, and restrict their social contacts to a small group of trusted individuals (Parkes, 1988). As a result, their motivation to re-enter self-employment and learn from the failure is stymied (Shepherd, 2003). Investigating the factors that influence the variance in grief after failure is therefore an important pre-step for understanding the overall implications of firm failure. This research question forms the foundation for the first study in the dissertation. Formally stated:

Research question 1:

What influences the variance in grief entrepreneurs feel after experiencing firm failure?

Based on the substantiation that grief is a common emotional response to firm failure, it makes sense to investigate how entrepreneurs recover from grief and the influence this has on their entrepreneurial motivation and emotional recovery. When individuals feel grief, this can trigger a number of coping strategies (Parkes, 1988). Coping strategies can help individuals recover from negative emotions associated with failure and help them alter or manage their environment to reduce the causes of stress (Lazarus & Folkman, 1984). Recent research has suggested that coping is a useful framework for understanding how entrepreneurs manage the negative implications that failure can have on their lives (Shepherd, 2003; Singh et al., 2007). Specifically, firm failure can result in emotional and financial costs and how entrepreneurs manage these...
costs has implications for their overall recovery and entrepreneurial motivation (Shepherd et al., 2009b). Further, if failure is viewed as part of an ongoing entrepreneurial process, then understanding how entrepreneurs recover from failure to start new ventures can provide valuable insights to the likelihood of habitual entrepreneurship (Shepherd et al., 2009b). Thus, I investigate how entrepreneurs cope with failure and the implications this has on re-entry into self-employment and emotional recovery. These research questions form the foundation for the second study in the dissertation. Formally stated:

Research questions 2a & 2b:

How do entrepreneurs cope with the grief and financial loss associated with failure?

How does coping influence an entrepreneur’s likelihood of re-entering self-employment and his or her emotional recovery?

In addition to understanding how grief and coping influence re-entry into self-employment, it is also important to gain a better understanding of the relationship between learning, emotions, and re-entry into self-employment. Failure has the potential to provide valuable opportunities for learning (e.g. Minniti & Bygrave, 2001); however, prior research has suggested that (a) it is unlikely that all entrepreneurs learn from prior failure (Ucbasaran, Alsos, Westhead, & Wright, 2008) and, (b) because of the emotions associated with failure, entrepreneurs may not be motivated to apply what they have learned (Shepherd, 2003; Shepherd et al., 2009b). Thus, as a starting point, I investigate the factors that influence whether an entrepreneur learns from failure, the relationship between learning from firm failure and the motivation to re-enter self-employment, and the role emotions can play in this relationship. These research questions form the foundation for the third study in the dissertation. Formally stated:

Research questions 3a, 3b, & 3c:

What are the mechanisms which influence whether entrepreneurs learn from firm failure?

What influences whether entrepreneurs are motivated to re-enter self-employment and apply the lesson learned?

What role do emotions play in the learning process?

The previous three sets of research questions focus on the emotional implications of firm failure and the implications this has for entrepreneurs’ learning and re-entry into self-employment. However, in addition to the emotional costs, failure can also result in substantial financial losses for the entrepreneur (Whyley, 1998). Financial loss can constrain an entrepreneur’s ability to re-enter self-employment as it can limit their access to start-up capital
which is often sourced from their own savings (Carter & Rosa, 1998). Financial loss can also signal to entrepreneurs the return on their human capital in self-employment and they are likely to factor this into their future decision making regarding their occupational choices (Folta, Delmar, & Wennberg, 2010). Thus, to complement to the previous research questions, I also investigate how the financial costs of failure influence the probability that an entrepreneur re-enters self-employment. This forms the foundation for the fourth study in the dissertation. Formally stated:

Research question 4:

How do the financial implications of failure influence re-entry into self-employment?

1.5. Purpose

With these research questions in mind, the purpose of this dissertation is to investigate how entrepreneurs interpret and respond to firm failure. I focus on learning, re-entry into self-employment, and emotional recovery as important adaptive outcomes. To do this, I employ a longitudinal quantitative design to capture the interplay between the interpretation of failure, grief, financial loss, coping behaviors, and adaptive outcomes.

1.6. Research approach

The focus of the present research is on how entrepreneurs interpret the failure of their firms’ and the implications this has for how they respond to the failure. To examine these relationships, I draw on cognitive-emotional theories of adaptation and motivation (Lazarus & Folkman, 1984; Weiner, 1985; 1986). The research approach is state based in that the research questions focus on how entrepreneurs interpret the specific failure experience and the influence this has on how they respond to the experience. This is in contrast to trait based approaches, which focus on how individuals generally respond to experiences. I complement this approach by using human capital theory to investigate the relationship between the financial implications of failure, an entrepreneur’s prior self-employment experiences, and the probability they re-enter self-employment.

Empirically, I operationalize failure as firm bankruptcy and use a key informant approach to survey former active owner-managers of bankrupt firms. Respondents were initially interviewed over the phone; this was directly followed by a mail questionnaire. Respondents were then contacted using the same method an additional three times, creating a four wave longitudinal data set. Two studies use the cross sectional findings from the first round of data.
collection to investigate the initial responses to failure. The other two studies use the longitudinal nature of the data set to investigate adaptive outcomes.

Using bankruptcy as the definition of failure is in line with recent research that suggests using firm insolvency to operationalize failure (Shepherd, 2003; Shepherd, Douglas, & Shanley, 2000; Shepherd et al., 2009b). This definition emphasizes that, for economic reasons, the business is unable to continue its operations and, thus, singles out firm failure from other forms of exit, such as a merger or sale of the firm (e.g. Wennberg, Wildlund, DeTienne, & Cardon, 2010).

1.7. Definition of key concepts

Before continuing, it is important to have a clear understanding of how the key concepts in the dissertation are defined. I do this below.

**Firm failure.** I define firm failure as insolvency and operationalized this as bankruptcy. The specific reasons for choosing this definition are elaborated on in section 2.1.4

**Entrepreneur.** I define an entrepreneur as an active owner-manager of a firm. The specific reasons for choosing this definition are elaborated on in section 3.6.1

**Re-entry into self-employment:** I empirically investigate re-entry into self-employment after experiencing firm failure. Re-entry can be part of a team or as an individual and it can take the form of a start-up or entry into an existing firm. This definition captures that the firm is new to the individual as opposed to the continuation operation of a firm that the entrepreneur owned and ran prior to the bankruptcy.

**Learning.** I focus on learning in the context of firm failure. In this context learning is based on what the owner-manager recalls from the experience: the actions (or non-actions) that led the firm to fail where the outcome of learning relates to adjustments in self-employment knowledge (Shepherd, 2003). This captures that it is the entrepreneur’s interpretation of the failure that forms the basis for learning from the experience (cf. Boud & Walker, 1990).

**Grief.** I define grief as the negative emotional response an entrepreneur feels in response to the failure of his or her firm (Shepherd, 2003; Shepherd et al., 2009). This definition aligns with cognitive theories of grief that suggest a grief reaction can be triggered by a loss of something important to the self (Archer, 2001).

**Appraisal.** I use the transactional model of stress and adaption to understand reactions to firm failure (Lazarus & Folkman, 1984). Within this framework,
appraisal is defined as the process in which individuals evaluate the significance of what has happened for their well-being (Lazarus, 1993b).

Coping. Coping is also central to the transactional model of stress and adaption. It is defined as a person’s ongoing efforts in thought and action to manage specific demands appraised as taxing or overwhelming (Lazarus, 1993b).

Attributions. I use Weiner's attribution theory of motivation and emotion (Weiner, 1985, 1986). Attributions play a central role in this theory and are defined as the explanations individuals give to explain the causes of an experience.

1.8 Outline of the thesis

The thesis is divided into three parts:

• The remainder of part I contains a review of the relevant literature, an introduction to the theories used to answer the research questions and a detailed description of the method. These sections focus on the research area and research approach, providing an overall context for the thesis.

• Part II comprises four studies. Each study addresses one of the research questions or sets of research questions that were presented in section 1.4. Combined, the studies contribute to the understanding of the implications of firm failure for entrepreneurs. Each study is presented in article format and is included as a chapter in the thesis.

• Part III contains a concluding section that states the intended contributions of the thesis. In doing so it summarizes the key findings from the dissertation. It also includes a discussion of the limitations and suggestions for future research.
2  THEORETICAL FRAMEWORK

In the theoretical framework, I review the recent literature on the implications of failure for entrepreneurs. I first review the challenge of defining what is meant by failure in the entrepreneurship context. Table 1 contains a list of the articles included in the review. This provides a foundation for defining failure in the dissertation and a point of reference when discussing the implications of failure. Following this, I structure the review of literature around three themes identified in the literature: the causes of failure, learning from failure, and welfare implications of failure.

This review provides the foundation for using appraisal and coping theory (e.g. Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus & Folkman, 1984), attribution theory (Weiner, 1985, 1986), and human capital theory (Becker, 1975) to investigate the research questions presented in section 1.4. I then outline these three theoretical frameworks and how I will use them to answer the research questions of the dissertation. I conclude the theoretical framework with a figure that shows how each theoretical framework will be used to understand the implications of firm failure. This also provides a visual representation of how the four empirical papers are related to each other.

2.1  Defining failure in the context of entrepreneurship

The challenge of defining failure and the current lack of clarity surrounding the definition can be illustrated by two extracts from recently published articles on the topic.

Views on failure in the U.S. range greatly, from the general tolerance of failure in Silicon Valley to the abhorrence of it on more conservative Wall Street. Despite increasing conversation around failure in both the popular (e.g. Huber, 1998; Ingebretsen, 1993) and academic press (e.g. McGrath, 1999; Shepherd, 2003; Zacharakis et al., 1999), empirical study of this phenomenon is scarce. This is perhaps driven, at least in part, by unclear definitions of what failure is, and differing views on when failure is productive and when it is destructive (McGrath, 1999). Moreover, most studies fail to differentiate between failure of entrepreneurs and failure of their firms (Cardon, Stevens, & Potter, 2011 p. 80).

Further studies are needed to explore the timing of business failure and to consider the difficulties involved in defining business failure and success. Some outcomes can be unambiguously classed as failures or successes.
However, others fall into a gray-zone of near-failure and near-success (Rerup, 2006) (Ucbasaran et al., 2010p. 553).

Adding to the challenge of defining failure is that it can be defined using objective or subjective criteria at the firm, project, or individual level. In addition, the term entrepreneurial failure has been used to describe failure at these different levels (e.g. Cardon et al., 2011; McGrath, 1999; Singh et al., 2007). How failure is defined can influence the relevant research questions and the comparability of findings across studies. Thus, an understanding of how failure can be defined and the implications of these definitions is crucial for building theory driven knowledge and gaining a comprehensive view of the implications of failure in the context of entrepreneurship.

Based on the review of recent publications on failure in the context of entrepreneurship, three definitions of failure dominate the literature. They focused on: (1) objective financial criteria, (2) the subjective assessment of alternative options, and (3) personal failure.

2.1.1 **Objective financial criteria**

Recent research has suggested using firm level financial criteria to define failure (Shepherd, 2003; Shepherd & Wiklund, 2006; Shepherd et al., 2000). This has its roots in the need to distinguish failure, which is a result of poor performance, from the broader concept of exit. Historically, firm failure was synonymous with firm exit (Shepherd & Wiklund, 2006). However, as shown by Headl (2003) and recently by Wennberg, et al., (2010), this does not capture the variance in performance of firms when they exit. Many firms exit for other reasons than failure; for example, the entrepreneur retires or they pursue alternative employment opportunities (Headl, 2003; Watson & Everett, 1996). Exit alone should therefore not be considered failure (Davidsson, 2008; Shepherd & Wiklund, 2006; Wennberg, 2009). To distinguish failure from the wider phenomenon of exit, Shepherd and colleagues (Shepherd, 2003; Shepherd & Wiklund, 2006; Shepherd et al., 2000) suggest insolvency to define failure. Formally stated: failure occurs when a fall in revenues and/or a rise in expenses are of such a 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: 318).

This strict definition of firm failure is particularly relevant for the operationalization of failure and the formation of a sampling frame (Singh et al., 2007). This definition, however, is likely to underrepresent the actual number of firms that fail due to poor performance as many firms are likely to be merged, sold (Shepherd, 2003), or exited to avoid losses (Stokes & Blackburn, 2002). This definition of failure has been used in conceptual papers to investigate how entrepreneurs are likely to respond to the failure of their
2 Theoretical Framework

firms (Shepherd, 2003; Shepherd & Haynie, 2011; Shepherd et al., 2009b) and to capture prior firm failure in studies comparing novice, serial, and portfolio entrepreneurs (Ucbasaran et al., 2010). The very nature of insolvency means that the firm cannot continue to operate under current management; thus, it is particularly relevant for investigating an entrepreneur’s response to failure as he or she must cope with the loss of the firm and the consequences that failure can represent (cf. Shepherd & Haynie, 2011).

2.1.2 Subjective assessment of alternative options

Definitions that focus on the subjective assessment of alternative options are based on the entrepreneur’s perception of their firm’s performance relative to a benchmark or predetermined goal. One of the most commonly used subjective definitions of failure was suggested by McGrath (1999, p. 14): failure is the termination of an initiative that has fallen short of its goals. In a recent review of the literature, Ucbasaran et al., (forthcoming) suggest a similar definition also based on the entrepreneur’s subjective interpretation of the firm’s financial performance. They define business failure as the: cessation of involvement in a venture because it has not met a minimum threshold for economic viability as stipulated by the (founding) entrepreneur (Ucbasaran et al., forthcoming, p. 26).

These definitions are inspired by Gimeno, Folta, Cooper, and Woo’s (1997) threshold performance theory, which states that an entrepreneur’s human capital influences the minimum performance level he or she is willing to accept (McGrath, 1999). If performance falls below the minimum level, the entrepreneur exits the venture. Entrepreneurs with high levels of human capital are likely to have higher threshold levels given the more attractive alternative uses for their human capital. This implies that, given the same level of performance, one entrepreneur may view the firm as being successful; another entrepreneur may view the same firm as unsuccessful (Gimeno et al., 1997). Thus, using this definition, an entrepreneur who exits an economically profitable business for an alternative option that appears more attractive is classified as failing. This definition can therefore confound exit of a profitable firm that no longer meets the expectations of the entrepreneurs with failure of a business, which involves economic losses for the entrepreneur (cf. Shepherd & Wiklund, 2006).

This definition is often used in studies that focus on failure within corporate entrepreneurship, as it can capture the failure of one project within a larger, ongoing concern (e.g. Corbett, Neck, & De Tienne, 2007; Shepherd, Covin, & Kuratko, 2009a). This definition has also been used when comparing habitual entrepreneurs who have experienced failure with entrepreneurs who have not experienced failure (Politis & Gabrielsson, 2009; Ucbasaran et al., 2010). For example, Ucbasaran et al., (2010) used the subjective assessment of alternatives
as a complement to firm bankruptcy to compare objective and subjective failure experiences.

2.1.3 Personal failure

Recent case study research has focused on the personal implications of failure for entrepreneurs. These studies have selected cases based on the personal hardships that failure can have for entrepreneurs. Although personal failure is not explicitly stated as the definition of failure, it is implicit in the sampling frame in these papers. For example, Singh et al., (2007) combined the broader definition of business discontinuance with failures that resulted in personal challenges for the entrepreneur and not less serious reasons, such as a shift in the entrepreneur’s personal interests. When operationalizing failure and selecting cases, Cope (2011) identified respondents based on their potential to learn from the failure experience and focused on the impact failure had on their lives. Whitley (1998) contacted and included only entrepreneurs who had suffered economically as a result of the failure. The advantage of using this subjective definition of failure is its basis on the consequences of failure. Many of the issues relating to the difficulties of coping with failure and recovering from failure can therefore be identified. Hence, this definition is appropriate when investigating the negative impact failure can have on an entrepreneur’s well-being. However, a limitation of using personal failure to define failure is that it is difficult to identify a relevant sample population. Studies to date have often relied on friends and acquaintances reflecting the challenge of using such a definition on a larger scale. Further, using this definition to define a sample population of failed entrepreneurs also runs the risk of sampling on the dependent variable. The variance in responses to failure is potentially lost if the sample is based on how entrepreneurs respond to failure. Hence, this definition of failure includes entrepreneurs who have experienced personal failure where the firm may or may not have failed.

2.1.4 Definition of failure used in this dissertation

To define failure, I use the definition suggested by Shepherd and colleagues (Shepherd, et al., 2000; Shepherd, 2003; Shepherd & Wiklund, 2006):

‘Failure occurs when a fall in revenues and/or a rise in expenses are of such a 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: 318).

I operationalize this definition of failure as firm bankruptcy. Thus, I take a firm level definition of failure and I use it to investigate how entrepreneurs respond to the failure of their firms. This definition allows me to investigate the factors
that influence the extent that firm failure is associated with negative outcomes for the entrepreneur and the extent that failure is associated with learning, a productive outcome from failure. In other words, this firm level definition of failure allows me to investigate the variance in entrepreneurs’ responses to firm failure and the implications this has on negative and positive outcomes at the individual level.

Using insolvency as the definition of failure is preferable to the subjective assessment of alternatives. Insolvency is a relatively uniform experience and I investigate the variance in responses to this. Thus, I take a relatively homogenous experience and explain why there can be heterogeneous responses to this experience. If the subjective assessment of alternatives is used as the definition of failure, there is substantial variance in what can be interpreted as a failure under this definition (Gimeno et al., 1997). Thus, there is also likely to be substantial variance in how entrepreneurs respond to failure under this definition. This would mean taking a heterogeneous experience and trying to explain heterogeneous outcomes. In this situation, it would be difficult to isolate the relationships between key variables (Davidsson, 2008). This also makes it problematic to use individual level theories from social psychology as these are based on the subjective interpretation of experiences. This makes it difficult to isolate if the variance in responses to failure is due to the heterogeneous nature of the failure experience or due to the heterogeneous nature in how the failure experience is interpreted.

In contrast, using personal failure to define failure creates a group of entrepreneurs who have a relatively homogenous response to failure. Aside from the challenge of accessing this sample, this definition has the weakness of being sampled on the dependent variable. If I am interested in explaining the variance in responses to failure, creating a sample that has had a similar experience substantially reduces this variance. Thus, it is difficult to capture the variety in responses to failure with this definition.
# Table 1 Review of definitions

<table>
<thead>
<tr>
<th>Study</th>
<th>Criteria</th>
<th>Definition</th>
<th>Sample</th>
<th>Main Findings</th>
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</thead>
<tbody>
<tr>
<td>Gaskill, Van Auken, &amp; Manning (1993)</td>
<td>Financial</td>
<td>Wanting or needing to sell or liquidate to avoid losses or to pay off creditors or general inability to make a profitable go of the business</td>
<td>The sample consisted of 91 previous small business owners who experienced business failure in apparel and accessory retailing between 1987 and 1991</td>
<td>Entrepreneurs attributed the failure of their firms to poor managerial functions, poor working capital management, the competitive environment, and growth and overexpansion</td>
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<tr>
<td>Whyley (1998)</td>
<td>Personal Implications</td>
<td>Not explicitly defined – suffered financial loss as a result of the failure</td>
<td>40 entrepreneurs in the UK who had sort advice from a specialist agency about problems relating to small business failure</td>
<td>Business failure can have detrimental effects on an entrepreneur’s personal well-being including severe financial and emotional loss</td>
</tr>
<tr>
<td>McGrath (1999)</td>
<td>Subjective assessment of alternative options</td>
<td>Termination of a venture that has fallen short of its goals</td>
<td>Conceptual</td>
<td>A real options lens can be used to manage uncertainty by pursuing high-variance outcomes but investing only if conditions are favorable. This captures the possible benefits associated with failure while containing losses</td>
</tr>
<tr>
<td>Zacharakis, Meyer and DeCastro (1999)</td>
<td>Financial</td>
<td>Bankruptcy</td>
<td>8 case studies on failed firms. The entrepreneurs and the venture capitalists who backed them were interviewed</td>
<td>Entrepreneurs acknowledge that internal causes contributed to their venture's failure. Implications for learning and use of resources</td>
</tr>
<tr>
<td>Shepherd, Douglas &amp; Stanely (2000)</td>
<td>Financial</td>
<td>The probability that a firm will become insolvent and be unable to recover from that insolvency before being bankrupted and ceasing operations</td>
<td>Conceptual</td>
<td>The risk of failure increases with the degree of novelty of the venture</td>
</tr>
<tr>
<td>Study</td>
<td>Criteria</td>
<td>Definition</td>
<td>Sample</td>
<td>Main Findings</td>
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</tr>
<tr>
<td>Shepherd (2003)</td>
<td>Financial Criteria</td>
<td>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</td>
<td>Conceptual</td>
<td>Feelings of grief can stymie the learning process after firm failure and that learning can be facilitated by grief recovery</td>
</tr>
<tr>
<td>Shepherd &amp; Wiklund (2006)</td>
<td>Financial</td>
<td>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</td>
<td>Conceptual</td>
<td>Failure should be viewed as a process, This includes the process leading up to failure and the recovery process after failure</td>
</tr>
<tr>
<td>Singh Corner &amp; Pavolvich (2007)</td>
<td>Personal Implications</td>
<td>Business discontinuance where the failure resulted in personal challenges for the entrepreneur and not less serious reasons such as a shift in personal interests of the entrepreneur</td>
<td>Interviews with 5 New Zealand entrepreneurs who had experienced business failure</td>
<td>Entrepreneurs are more likely to actively cope with the financial implications of failure and these implications are more likely to trigger learning. This is in comparison to the social, psychological and physiological aspects of their lives</td>
</tr>
<tr>
<td>Politis &amp; Gabrielsson (2009)</td>
<td>Subjective assessment of alternative options</td>
<td>Deviation from expected and desired results including avoidable errors as well as unavoidable negative outcomes of experiments and risk taking (Cannon &amp; Edmonson, 2001, p. 162)</td>
<td>231 Swedish entrepreneurs that started new independent firms in 2004</td>
<td>Previous start up experience is strongly associated with a more positive attitude towards failure</td>
</tr>
<tr>
<td>Study</td>
<td>Criteria</td>
<td>Definition</td>
<td>Sample</td>
<td>Main Findings</td>
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<tr>
<td>Shepherd, Covin &amp; Kuratko (2009a)</td>
<td>Subjective assessment of alternative options</td>
<td>Entrepreneurial project failure is the termination of a project due to the realization of unacceptably low performance as operationally defined by the project's key resource providers (as opposed to projects terminated for other strategic reasons).</td>
<td>Conceptual</td>
<td>Grief can have a positive influence on learning from project failure because it signals the importance of the failure. In turn if the grief is managed through regulation rather than elimination, learning and motivation is enhanced.</td>
</tr>
<tr>
<td>Shepherd, Wiklund &amp; Haynie (2009b)</td>
<td>Financial Criteria</td>
<td>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</td>
<td>Conceptual</td>
<td>Anticipatory grief can explain why Entrepreneurs continue to run their firms even after they realize they will fail. Anticipatory grief can be used to understand why this is the case.</td>
</tr>
<tr>
<td>Hayward, Forster, Sarasvathy &amp; Fredrickson (2010)</td>
<td>No specific definition given</td>
<td>Termination of a venture that has fallen short of its goals (McGrath, 1999). Operationalized as bankruptcy, liquidation or receivership, or if the business had been closed or sold because it had failed to meet the expectations of the entrepreneur</td>
<td>Conceptual</td>
<td>Overconfidence is an important mechanism which facilitates entrepreneurs rebounding after experiencing failure.</td>
</tr>
<tr>
<td>Ucbasaran, Westhead, Wright &amp; Flores (2010)</td>
<td>Subjective assessment of alternative options &amp; Financial criteria</td>
<td>A representative sample of 576 entrepreneurs in Great Britain</td>
<td>Portfolio entrepreneurs are less likely to report comparative optimism following failure; however, sequential (also known as serial) entrepreneurs who have experienced failure do not appear to adjust their comparative optimism.</td>
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</table>
2 Theoretical Framework

<table>
<thead>
<tr>
<th>Study</th>
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<th>Definition</th>
<th>Sample</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardon, Stevens &amp; Potter (2011)</td>
<td>Financial criteria</td>
<td>Business or venture failure</td>
<td>389 newspaper articles on firm failure from 6 regional papers and one national paper all located in the US</td>
<td>Explanations for failure were evenly distributed between the entrepreneur and external factors being the cause. However there were regional differences</td>
</tr>
<tr>
<td>Cope (2011)</td>
<td>Combinatio n – financial criteria and subjective assessment of alternative options</td>
<td>Insolvency and a termination of a venture that has fallen short of its goals</td>
<td>4 entrepreneurs from the across the UK and 4 entrepreneurs from Silicon Valley that were identified based on their potential to learn from the failure</td>
<td>Entrepreneurs can experience higher order learning from failure. Recovery involves rebuilding the financial, emotional and relational resources that get depleted as a result of failure</td>
</tr>
<tr>
<td>Shepherd &amp; Haynie (2011)</td>
<td>Financial criteria</td>
<td>Bankruptcy</td>
<td>Conceptual</td>
<td>The heterogeneity in responses to the stigma associated with failure can be explained by impression management strategies</td>
</tr>
<tr>
<td>Ucbasaran, Shepherd, Lockett, &amp; Lyon (forthcoming)</td>
<td>Combinatio n – financial criteria and subjective assessment of alternative options</td>
<td>The cessation of involvement in a venture because it has not met a minimum threshold for economic viability as stipulated by the entrepreneur</td>
<td>Conceptual/Review</td>
<td>Avenues for future research</td>
</tr>
</tbody>
</table>

2.2 Literature review: Failure in the context of entrepreneurship

In this review, I focus on the implications of firm failure for entrepreneurs. I limit this to the context of privately held firms because in these firms there is usually no separation of ownership and management. Thus, firm level outcomes have a direct influence on the entrepreneur. As this is an emerging stream in the entrepreneurship field, I included published articles as well as conference proceedings in the review.
The review also identifies a number of similar themes and reaches similar conclusions to forthcoming review by Ucbasaran et al. These reviews were conducted in parallel and independently of each other. Hence, a strength of this review is that its findings have been support by another study. Although I focus the review on the implications of firm failure for owner-managers, I also include a review of the literature on the causes of failure that can have relevance for how entrepreneurs respond to and interpret failure. The review provides a foundation for addressing the research questions of the thesis and the choice of theories used for answering these questions. The three specific themes reviewed are the causes of failure, learning from failure, and the welfare implications of failure.

2.2.1 Causes of failure

Much of the early work on entrepreneurial failure focused on the causes of failure. This can be categorized into three main themes: cognitive biases, liabilities of newness, and human capital (see Shepherd and Wiklund, 2006, for a more comprehensive review). In this review, I focus on cognitive biases and human capital because these causes of failure can influence how the entrepreneur responds to failure and are therefore relevant for understanding the implications of failure for entrepreneurs.

As mentioned in the introduction, cognitive biases such as overconfidence (Hayward et al., 2006) and fallible judgment (Hogarth & Karelaia, 2011) have been given to explain excess entry and thus failure. For example, Busenitz and Barney (1997) found that entrepreneurs had greater confidence than managers in their ability to estimate the probability of death from different health related causes such as heart disease and cancer. Cooper, Woo and Dunkelberg (1988) also found that entrepreneurs thought that their ventures had a greater chance of success in comparison to similar ventures. Hayward et al., (2006) proposed that overconfidence can cause entrepreneurs to under-invest in their ventures and thus deprive their ventures of the resources required to be successful. Recently Cardon et al., (2011) found some empirical support for the overconfidence hypothesis as a cause of failure. They found that in newspaper accounts of the causes of business failure, overconfidence accounts for approximately 5% of failures (Cardon et al., 2011). However, overconfidence can also be a mechanism that helps entrepreneurs rebound after experiencing failure due to positive emotions felt as a by-product of overconfidence (Hayward, Forster, Sarasvathy, & Fredrickson, 2010). Overconfidence can also influence learning from failure as overconfidence is related to making external attributions for failure (Luthans, Vogelgesang, & Lester, 2006). External attributions for failure can short cut the learning process (Lant, Milliken, & Batra, 1992) as entrepreneurs are less likely to reflect on the failure (Ucbasaran, Westhead, & Wright, 2011). Hence, overconfidence as a cause of failure can influence how entrepreneurs respond to failure.
A common explanation for failure has been that entrepreneurs lack the specific skills required to successfully own and manage a firm (Shepherd & Wiklund, 2006). This reasoning is founded in human capital theory which posits that individuals with higher levels of human capital are more capable at performing tasks and thus achieve higher performance (Becker, 1975). Human capital is comprised of general human capital and specific human capital. General human capital is made up of skills that are useful in a variety of work settings. Specific human capital is made up of skills that are more specialized and valuable in a particular context or organization, but less valuable in the general labor market. Because many of the skills required for successful entrepreneurship can only be gained through direct experience (Politis, 2005), entrepreneurs cannot a priori know their return on their human capital in self-employment (cf. Knight, 1921). This can leave entrepreneurs susceptible to failure if they lack the necessary skills for successful entrepreneurship. This has resulted in micro level studies that focus specifically on the causes of firm failure and the role of an entrepreneur’s human capital in contributing to the failure (Gaskill, Van Auken, & Manning, 1993; Statistics Canada, 1997; Stokes & Blackburn, 2002). However, since a common cause of failure is lack of skills and these can be gained through direct experience, learning is a potential outcome from firm failure.

### 2.2.2 Learning and failure

A common theme in the research on entrepreneurial failure is that failure can be an important source of learning for entrepreneurs (Cope, 2003; Corbett, Neck, & De Tienne, 2007; McGrath, 1999; Minniti & Bygrave, 2001; Shepherd, 2003). The interest in learning stems from two interrelated reasons. First, as previously outlined, one of the most common causes of failure among new firms is lack of experience (Statistics Canada, 1997). However, many of the skills required for self-employment can only be gained by actively engaging in it (Politis, 2005). This suggests there is scope for entrepreneurs to learn from failure (Shepherd, 2003; Stokes & Blackburn, 2002). Second, failure can be a rich source of feedback information to entrepreneurs regarding the effectiveness of their decision making (Minniti & Bygrave, 2001) and can provide unique opportunities to gain knowledge that cannot be gained from success alone (Rerup, 2005). Lessons learned from past failures can be factored into future decision making, improving the likelihood of success in subsequent entrepreneurial endeavors (Cope, 2011; Jovanovic, 1982; Minniti & Bygrave, 2001).

However, there is debate surrounding whether all entrepreneurs learn from prior experience. Empirical findings have shown inconclusive results—some studies find support for a positive relationship between prior experience and performance; other studies do not find a relationship (Ucbasaran et al., 2008). Thus, learning is a potential but not certain outcome from firm failure. This has led
to researchers focusing on the factors that influence whether an entrepreneur learns from failure. In these studies, learning is, therefore, a dependent variable. In addition, because failure can be a rich source of learning, this has led researchers to focus on the outcomes of learning from failure. In these studies, learning is therefore an independent variable. I now review the articles that have learning as a dependent variable followed by the articles with learning as an independent variable.

2.2.2.1 Learning as a dependent variable

Critical and discontinuous events such as failure can act as important sources of information that contribute to renewing an entrepreneur’s stock of knowledge (Cope, 2003; Deakins & Freel, 1998; Minniti & Bygrave, 2001; Shepherd, 2003; Stokes & Blackburn, 2002). However, the mechanisms that influence whether an entrepreneur learns from failure are poorly understood (Cope, 2011). This has led to recent research focusing on how entrepreneurs learn from critical events (Cope, 2003; Cope & Watts, 2000) and firm failure (Cope, 2011; Shepherd, 2003), and how corporate entrepreneurs learn from project failure (Corbett et al., 2007; Shepherd, Patzelt, & Wolfe, 2011).

Two common themes emerge from this literature. First, reflection has been identified as an important component in the process of learning from failure (Cannon & Edmondson, 2001; Cope, 2003; Cope & Watts, 2000; Politis & Gabrielsson, 2009; Sitkin, 1996). It involves asking questions about why the firm failed, directing attention selectively to different aspects of the failure experience. This process can make the entrepreneur more mindful in their attempt to make sense of the failure (Cope, 2011; Rerup, 2005). A positive attitude towards failure can foster reflection (Politis & Gabrielsson, 2009) and enables the failure to be studied in a more systematic way (Cannon & Edmondson, 2001).

Second, emotions associated with failure can make it difficult to initially learn from failure. This is because negative emotions can reduce the individual's capacity to process new information (Shepherd, 2003) and can even cause entrepreneurs to make external attributions for failure to lessen the emotional impact reducing the capacity to learn from failure (Ucbasaran et al., 2011) as the entrepreneur does not reflect on his or her role in contributing to the failure. This suggests that entrepreneurs can benefit from a period of recovery prior to engaging in learning from failure (Cope, 2011). Further, recovery and learning are likely intertwined. As entrepreneurs recover from the failure, they are in a better position to process the failure and systematically process what occurred and why (Cope, 2011; Shepherd, 2003). Thus, learning may not be an immediate outcome from failure; rather, a process that unfolds over time (Shepherd et al., 2011).
Cope (2011) identified four outcomes of learning from failure. These were learning about oneself, the venture (and its demise), networks/relationships, and venture management. Similar findings have been found by Singh et al., (2007) and Stokes and Blackburn (2002). In relation to learning about oneself, failure can be important for developing resilience (Cope, 2011), which is the ability to rebound quickly after stressful encounters (Richardson, 2002). It can also reduce an entrepreneur's overconfidence, giving them more realistic expectations about the likelihood of future success (Ucbasaran et al., 2010). In addition to specific learning outcomes related to the failure of the business, experiencing failure can lead to entrepreneurs re-evaluating how they would manage a future business. Stokes and Blackburn (2002), for example, found that entrepreneurs learned about how they personally manage a business and how they cope with setbacks. This is similar to the finding by Cope (2011), who found entrepreneurs are likely to rearrange their entire mental models in relation to how they view business management and, thus, failure can lead to higher-level learning.

2.2.2.2 Learning as an independent variable

An assumed benefit of learning is that it can lead to improved performance in subsequent entrepreneurial endeavors (Cope, 2011). Recent research has begun to deconstruct the prior experience variable and focus on how learning from past failures influences current performance (Rerup, 2005; Ucbasaran et al., 2010; Yamakawa, Peng, & Deeds, 2010). Rerup (2005) suggests that failure can trigger mindful applications of past experiences in new entrepreneurial ventures. In this context, being mindful is the entrepreneur's capability to modify their past failure experiences to exploit their own knowledge more effectively. Focusing specifically on the relationship between learning and performance, Yamakawa, Peng and Deeds (2010) found that when entrepreneurs blamed themselves for past failures, they were more likely to experience growth in their subsequent ventures. The logic being: internal attributions of blame are likely to result in the entrepreneur looking back and considering what they did wrong and how they could improve in the future (Yamakawa et al., 2010). Ucbasaran et al., (2010) found a similar relationship between prior failure experience and comparative optimism. They found that when a portfolio entrepreneur experienced failure because the firm did not meet their expectations, they were more likely to express lower comparative optimism in comparison to novice and serial entrepreneurs. However, they did not find this relationship when either portfolio or serial entrepreneurs had experienced prior economic failure. This finding suggests that failures involving unmet expectations may be better at fostering learning than economic failures. This can be related to the previous discussion on reflection and mindfulness. The feeling of expectations not being met might trigger mindfulness and consideration of what went wrong and why to a greater extent than economic failures.
2.2.3 Welfare implications and failure

Entrepreneurs make significant investments of time, energy, and resources in their firms (Cardon, Zietsma, Saparito, Matherne, & Davis, 2005; Cope, 2003) and engage with passion when creating and managing their firms (Cardon, Wincent, Singh, & Drnovsek, 2009). As a result of this commitment to their firms, entrepreneurs can suffer significant emotional and financial losses if their firms fail, and this can have implications for learning and motivation to re-enter self-employment (Shepherd et al., 2009b). This has led researchers to begin investigating how failure can influence an entrepreneur’s well-being and how an entrepreneur recovers from the negative implications of failure.

2.2.3.1 Initial implications of failure for well-being

Whyley (1998) performed one of the first comprehensive empirical investigations into how firm failure can influence an entrepreneur’s well-being. Based on interviews with 40 individuals who sort advice from a specialist agency about problems relating to small business failure, she found that failure can have detrimental effects on an entrepreneur’s well-being, including severe financial and emotional implications. She found that there were a number of factors that influenced the extent of emotional and financial loss; this included how the entrepreneur financed the venture and their alternative uses of their human capital (cf. Gimeno et al., 1997). For example, she found that an entrepreneur’s emotional attachment to the business played a crucial role in influencing when and how entrepreneurs chose to close their failing firms (cf. Shepherd et al., 2009b).

With these implications in mind, recent research has begun to investigate why failure can represent an emotional loss for entrepreneurs (Cope, 2011; Shepherd, 2003; Shepherd & Haynie, 2011; Singh et al., 2007). Shepherd and Haynie (2011) suggest that an entrepreneur’s identity is intrinsically linked to the performance of the firm. Failure can challenge this identity, leading to a loss of self-esteem, feelings of grief, and reduced well-being (Shepherd & Haynie, 2011; Singh et al., 2007). Based on empirical case studies with entrepreneurs who had experienced failure, Singh et al., (2007) found that the negative welfare implications of failure can cover many aspects of the entrepreneur’s life including marriage breakdowns, sleeplessness, depression, exhaustion, and financial loss. Contributing to an entrepreneur’s reduction in well-being is also the degree of stigma he or she feels as a result of being associated with a failed firm (Shepherd & Haynie, 2011). Stigma can also influence adaptive outcomes. For example, Simmons and Wiklund (2011) found that the level of stigma associated with failure influences if and how an entrepreneur re-enters self-employment - as an employee in a new firm or as an owner-manager (Simmons & Wiklund, 2011).
Although most recent research on the welfare implications of failure for entrepreneurs has focused on the emotional implications, failure can, for obvious reasons, also have severe financial implications for entrepreneurs. Whyley (1998) found that one of the main reasons failure can result in significant financial hardship for individuals is that they do not separate their personal finances from the firm’s finances. Personal finances are used to invest in the start-up of the firm and to keep the firm afloat (Whyley, 1998). Thus, firm failure can be a major contributor to debt and financial insecurity (Whyley, 1998). To illustrate the extent of the financial costs of business failure, Ford, Kempson, and Wilson, (1995 cited in Whyley, 1998) found that almost a quarter of people with mortgage in arrears and a third of individuals with homes in repossession had suffered an income loss due to business failure. Further, in 18% of the possessions and 12% of mortgage in arrears, business failure was cited as the main reason the individual was unable to pay their mortgage (Whyley, 1998).

2.2.3.2 Recovery from failure

Given the severe welfare implications that failure can have for entrepreneurs, recent research has also begun to investigate how financial and emotional loss and recovery are interrelated. Shepherd et al., (2009b) use an anticipatory grief argument to explain why entrepreneurs have difficulties exiting a failing firm and the potential benefits that delay can have despite the potential for increased financial loss. They suggest that delaying the close of a firm after the realization that it will fail can help the entrepreneur prepare emotionally for the failure. As a result, they are in a better emotional position after the failure and are more easily able to move on from the failure once they exit the failing firm. Extended delay, however, can result in emotional and financial drain and could delay overall recovery. Thus, they focus on how pre-exit decisions influence post-exit recovery. This is in contrast to other papers that have focused on recovery after the failure experience (Cope, 2011; Shepherd, 2003, 2009; Singh et al., 2007). Shepherd (2003) and Singh et al., (2007) suggest that how an entrepreneur copes with the failure can influence the extent and speed of recovery. Shepherd (2003) proposes that oscillating between a loss orientation coping method—which involves confronting the failure and talking about feelings of grief with friends, family or psychologists—and a restoration coping method—which focuses on avoidance of the loss and focus on secondary sources of stress—can result in faster recovery from failure. Singh et al., (2007) suggest a similar strategy for coping with failure based on the emotion and problem based coping framework suggested by Lazarus and Folkman (1984). Based on five case studies with entrepreneurs who had recently experienced failure, they found that entrepreneurs use problem based coping strategies to deal with the financial implications of failure, such as selling assets to help pay debt, and emotion coping strategies, such as talking to friends and family, to deal with the emotional strain from failure (Singh et al., 2007).
Also using in-depth case studies, Cope (2011) breaks down the recovery process into three distinct coping phases: avoidance, confrontation, and moving on. He suggests an initial period of avoidance and stepping back from the failure can be important to overcome the painful emotions associated with failure. This is similar to the avoidance component of the restoration coping strategy. He suggests that confronting the failure can be important for accepting and learning from it. This is similar to the loss orientation and emotion focused coping strategies, where emotions from the failure are actively processed. Lastly, to move on from the failure it is important as to not dwell in the confrontation stage. This is similar to problem focused coping and dealing with secondary sources of stress form the restoration coping strategy, where the entrepreneur actively takes steps to move on from the failure. Thus, an outcome from this research on recovery and coping is that entrepreneurs are likely to engage in a range of coping strategies to deal with the emotional and financial implications of failure.

2.3 A cognitive-emotional approach to understanding the implications of firm failure

I now present the theories I use to answer the research questions presented in section 1.4. This is followed by a presentation of the research model tested in this dissertation.

Theories from psychology focus on understanding people’s perceptions, cognitions, emotions, motivation, and behavior and, thus, it makes sense to use a theoretical lens from psychology when addressing research questions that focus on the actions and perceptions of entrepreneurs (Frese, 2009). In particular, theories from psychology have been used to explain how entrepreneurs respond to failure (Shepherd & Haynie, 2011).

To understand how entrepreneurs interpret failure experiences, I draw on the transactional model of stress and adaptation (e.g. Folkman et al., 1986; Lazarus & Folkman, 1984) and attribution theory (Weiner, 1985, 1986). The transactional model of stress and adaptation has as its foundation that how an individual interprets a stressful experience influences how they feel after and how they cope with the experience. Attribution theory has a similar theoretical foundation: it focuses on the influence that perceived attributions for an experience have on emotion and motivation. Both theories have as their premise that how an individual interprets a specific experience has implications for how they respond to it. In other words, both theories are designed to explain human behavior after stressful experiences and are thus suitable for understanding how entrepreneurs respond to and recover from firm failure.
This is in contrast to trait based approaches which focus on how individuals usually interpret, perceive, and appraise situations. As I am interested in understanding how entrepreneurs respond to failure and the implications this has for adaptive outcomes, it makes most sense to investigate how they interpret the specific experience of firm failure rather than how they interpret stressful experiences in general. Although trait based measures and state based measures are often correlated (Lazarus, 1993), state based measures are more proximal for understanding specific responses to specific experiences.

2.3.1 The Transactional Model of Stress and Adaptation

I use the transactional model of stress and adaptation developed by Lazarus and colleagues to investigate emotional reactions to firm failure and how entrepreneurs cope with this experience (Folkman & Lazarus, 1988a; Lazarus, 1993a, 1999; Lazarus & Folkman, 1984). This model takes as the starting point that how an individual appraises a stressful experience influences how they respond and cope with the experience. It takes into consideration the reciprocal interaction between personal factors and environmental demands (Lazarus & Folkman, 1984), and is therefore an interactive process that unfolds over time (Lazarus, 1993a).

Cognitive appraisal is the process by which individuals evaluate whether a particular experience is relevant for their well-being (Folkman et al., 1986). It involves the evaluation of personal significance of a situation with regard to the individual's own values, personal beliefs, situational intentions, and goal commitments. An experience can be appraised as (a) having no relevance for well-being, (b) benign/positive, where the situation is appraised as non-threatening with possibilities to preserve or enhance well-being, or (c) stressful, where the situation is appraised as involving potential threats to well-being, challenges to well-being, or has resulted in harm or loss to the individual. A harm-loss appraisal indicates that some form of damage has already been done to the individual. In contrast, threat and challenge appraisals are anticipatory and are concerned with the potential for harm-loss or gain, respectively.

In general, two streams of research have developed out of how individuals appraise experiences. The first focuses on the relationship between how a situation is appraised and the specific emotional response. This line of research identified a number of antecedents that presuppose specific emotions. Although starting from slightly different perspectives, appraisal theorists agree on the foundations for a range of emotional responses to specific experiences (Frijda, Kuipers, & ter Schure, 1989; Roseman, Antoniou, & Jose, 1996; Smith & Ellsworth, 1985; Smith, Haynes, Lazarus, & Pope, 1993; Smith & Lazarus, 1993). For example, anger is associated with blaming someone else for an unwanted situation while guilt occurs when one blames oneself for an unwanted situation. The second stream of research focuses on emotional
responses in stressful situations and how individuals cope with these situations (Lazarus, 1993b). This research focuses on the adaptive outcomes of different coping strategies. It is this second stream of research that is most relevant for understanding how entrepreneurs respond to and cope with failure.

In situations that are appraised as stressful, individuals focus on managing the stress using coping responses. Situations that are appraised as either having no relevance for well-being or as being benign/positive do not require a coping response as they do not threaten well-being (Anshel & Delany, 2001). Lazarus and colleagues (Folkman & Lazarus, 1988a; Folkman et al., 1986) have suggested two overarching functions of coping. The first function focuses on the management of the negative and stressful emotions that arise when well-being is threatened. This is known as emotion-focused coping. The second function focuses on managing or altering the cause of the stress in the person-environment relationship. This is known as problem-focused coping. Within these categories of coping, a number of coping strategies have been identified; these include venting negative emotions, engaging in activities to escape, or avoiding the situation and actively planning what to do next (see Folkman & Lazarus, 1988b for additional coping strategies). A substantial body of empirical research has used this distinction to investigate how individuals respond to stressful life events (e.g., Bjørck, Cuthbertson, Thurman, & Lee, 2001; Dewe & Ng, 1999; Folkman et al., 1986). An outcome of this research is that, in most situations, individuals use a variety of coping strategies (Lazarus, 1993a) and that these strategies often do not conform to the parent categories of emotion and problem based coping (Skinner, Edge, Altman, & Sherwood, 2003). This distinction has therefore come under increased scrutiny and resulted in alternative parent categories of coping being suggested (Skinner et al., 2003). Although there is debate about the structure of coping strategies, there is consensus in regards to the range of strategies used to cope with stressful experiences and that coping can either reduce or amplify the effects of a stressful experience (Skinner et al., 2003).

In the entrepreneurship literature, Singh et al., (2007) used Lazarus and Folkman's coping framework in exploratory case studies to investigate how entrepreneurs cope with firm failure. Their findings that entrepreneurs used problem focused coping to manage the financial implications of the failure and emotion focused coping to manage the emotional implications of the failure provide support for the use of Lazarus and Folkman's coping framework to investigate how entrepreneurs cope and recover from firm failure. Appraisal theory has also been used to understand the role of specific emotions in the opportunity identification process (Foo, 2011).

The transactional model of stress and coping has been used in the job loss literature to investigate how individuals appraise and cope with job loss. Findings from this research show that cognitive appraisals for job loss explain
the variation in how stressful individuals find this experience (McKee-Ryan, Zhaoli, Wanberg, & Kinicki, 2005). Also based on a meta-analysis of the relationships between job loss and well-being, McKee-Ryan et al., (2005) found support for problem-focused and emotion-focused coping being associated with higher levels of well-being. Given the similarity of context, these findings also suggest that this theoretical framework is particularly relevant for understanding how entrepreneurs appraise and cope with firm failure.

2.3.2 Attribution theory

I use Weiner’s (1985; 1986) attribution theory of emotion and motivation to investigate how entrepreneurs learn from failure and the role that learning has for motivation to re-enter self-employment. This theory focuses on the motivational and emotional consequences of perceived attributions for a specific experience. Common to this research is the assessment or manipulation of perceived causes for an experience and the effect this has on behaviour, feelings, and expectancies (Kelley & Michela, 1980). This is in contrast to attribution theories which focus on the cognitive processes involved when making attributions. This usually entails the systematic assessment or manipulation of the antecedents of attributions. This line of research does not usually consider the consequences of attributions (Kelley & Michela, 1980). The relationship between these two focuses of attribution theories is shown in figure 1 below. As outlined in section 2.4, I am interested in how entrepreneurs respond to failure; I therefore focus on the relationship between attributions and their consequences.
The attribution field developed from a number of different lines of work. Examples include social learning theory, which led Rotter (1966) to development the locus of control concept, and Heider's (1958) seminal work on naïve psychology. Heider (1958) was one of the first to reason that in everyday situations, individuals act as “naïve psychologists,” trying to assign causality to outcomes and behaviours. Attribution theory has since been used to understand a diverse range of behaviour and motivation, such as achievement motivation, parole decisions, romantic love, aggression, and depression (McAuley, Duncan, & Russell, 1992; Weiner, 1985, 1986).

In particular, attribution theories have been used to understand how individuals respond in failure situations (Wong & Weiner, 1981). This is because attribution search is often triggered by experiences that are unexpected, involve the non-attainment of goals, and are important (Weiner, 1986; Wong & Weiner, 1981). It has therefore been extensively studied in academic achievement situations to understand how students respond to exam situations and teacher feedback (Graham, 1991).

The basic principle of attribution theory is that, although an individual can have an infinite number of experiences and there is likely to be an infinite number of causes for these experiences, the perceived causes of an experience can be classified within a limited number of underlying dimensions (Weiner, 1985, 1986). Weiner (1985, 1986) proposed three commonly accepted attribution dimensions: (1) the locus of causality, which identifies the source of the perceived cause and captures whether an individual makes an attribution that is internal to themselves; for example in the case of firm failure, poor sales skills, or an attribution that is about the situation, for example, the state of the economy or high interest rates; (2) controllability, which captures whether the individual perceives they had control or not over the cause; for example, in the case of poor sales skills, a controllable attribution could be the amount of time dedicated to marketing and an uncontrollable attribution could be to a lack of a charismatic personality required for direct sales; and (3) stability, which captures whether the individual perceives the causes to be stable or variable over time and thus reflects future expectations about the perceived cause; for example, a variable attribution could be the actions of the former business partner, while a stable attribution could be technological change.

Each attribution dimension is related to a specific set of emotions and motivational consequences. Directly influencing motivation is the perceived stability of the cause (Weiner, 1985; 1986). The stability dimension reflects future expectations about the perceived cause and this influences goal expectancy (Weiner, 1985; 1986). If an outcome of an experience is attributed to a stable cause, it is expected that this cause will be present in the future. This increases the certainty that outcomes obtained in the past will be obtained in the future. In the case of failure, this decreases individuals’ motivations to try
2 Theoretical Framework

again as they perceive the cause of the failure as something that will be present in the future, increasing their expectancy of failure. The opposite is the case with respect to success. In contrast, attributions to variable causes are subject to changing temporal or situational conditions (Weiner, 1985; 1986). If the individual perceives that the cause for the failure is something temporary or peculiar to a specific situation, he or she is likely to be motivated to try again.

Attributions can also influence motivation via the effect they have on emotions. Initial emotional reactions to an experience in the achievement domain are based on whether the individual has succeeded or failed. When an outcome is successful, happiness is usually felt. In contrast, sadness or frustration are often felt after failure. These reactions are based on the outcome of the event and are outcome dependent, but attribution independent. The perceived causes of the experience also trigger an emotional response, which can intensify or modulate the emotions being felt. Although it is not possible to generate a complete list of thinking-feeling relations due to the infinite number of potential outcomes and the attributions for these outcomes, there are, in general, a number of prevalent emotions associated with general properties of perceived causes; these should be relatively stable across idiosyncratic situations (Weiner, 1986). In general, each dimension in the attribution framework is associated with a cluster of emotions (Weiner, 1986). The locus of causality dimension triggers emotions related to self-esteem; the locus of stability dimension triggers emotions associated with future expectations, such as hope and hopelessness; and, the controllability dimension triggers social emotions, such as guilt, anger and shame (Graham, 1991).

Because attributions can directly influence how an individual feels, this can lead to individuals making attributions to either enhance or protect how they feel. This is known as the self-serving bias (Bradley, 1978). In the context of success and failures, it has been shown that individuals generally attribute success to internal factors (internal attribution) as they like to take personal credit for their successes and attribute failures to external factors (external attribution) in an attempt to save face (Bradley, 1978; Kelley & Michela, 1980). Self-esteem is enhanced when successes are attributed to internal factors while ego is protected when failure is attributed to external factors (Bradley, 1978, Weiner, 1986). This demonstrates that individuals may bias their attributions to alter or manage feelings about themselves (Weiner, 1986). Based on a review of the literature, Kelley and Michela (1980) and Bradley (1978) found that there was considerable empirical evidence to support the self-serving bias. In these studies, subjects were given feedback as to whether they succeed or failed at a skill based task and were then asked to assign causality for their performance. The general findings suggest that successes are more often attributed to internal causes and failures to external causes.
Despite substantial empirical evidence demonstrating the self-serving bias in both experimental settings (Bradley, 1978) and within top management teams (Bettman & Weitz, 1983; Bowman & Haire, 1976; Staw, McKechnie, & Puffer, 1983), the studies that have focused on the causes entrepreneurs cite for the failure of their firms has shown that entrepreneurs are more likely to make internal attributions for the failure than external attributions (Gaskill et al., 1993; Zacharakis, Meyer, & DeCastro, 1999). Zacharakis et al., (1999) compared the attributions given for firm failure by entrepreneurs and the venture capitalists who backed them. They found lack of management skills was the most often cited cause for failure by the entrepreneurs. External factors such as poor external market conditions also contributed; however, internal factors were most often cited. Gaskill et al., (1993), who investigated the attributions entrepreneurs made for the failures of their firms, also found that entrepreneurs were more likely to attribute the failures to internal factors in comparison to external factors. Thus, the self-serving bias is unlikely to be a significant issue in the present study. Further, what is important are the implications of attributions for emotions and motivation rather than trying to uncover the actual cause of the firm failure. In other words, what is important for the present study is the influence attributions, whether they suffer from bias or not, have on emotions and learning. As it is assumed that self-serving attributions are made in an attempt to manage emotions (Bradley, 1978), it would be expected that entrepreneurs who attribute their failures to external factors, irrespective of any biases that might be present, would express similar emotional responses and have similar learning experiences.

Attribution theory has also been used in the entrepreneurship literature to investigate how entrepreneurial failure is reported in the media and the influence that cultural sense-making has on whether attributions are made to internal or external causes (Cardon et al., 2011). Also focusing on the locus of causality dimension, Yamakawa et al., (2010) investigated how prior failure attributions influence performance in subsequent ventures. In contrast, Shaver, Gartner, Crosby, Akalarova, and Gatewood (2001) focused on the founding phase of the entrepreneurship process and the attributions entrepreneurs gave for why they founded a business.

2.3.3 Use of the transactional model of stress and adaptation and attribution theory in the dissertation

The transactional model of stress and adaptation, and attribution theory have similar theoretical foundations.Attributions and appraisals have even been used interchangeably in prior research (Lazarus & Smith, 1988; Smith et al., 1993). However, there are important distinctions between the theories that make them more suitable for answering different research questions in the dissertation. Of particular importance is the relationship between appraisals, attributions, and
emotion. Attributions are knowledge about what has happened and why. They are relevant to emotion because they provide information about the cause of the experience and this is factored into the evaluation of the experience with respect to adaptive significance (Lazarus & Smith, 1988). However, because they are fact-based rather than significance-based, they are not sufficient to produce an emotional response (Smith et al., 1993). Appraisals, on the other hand, focus on the importance of the experience for well-being and involve asking questions such as, “Do I care about what is happening?” and “Is it good or bad for me?” (Smith et al., 1993 p. 917). This form of appraisal provides the ‘heat’ in the encounter to trigger an emotional response (Lazarus & Folkman, 1984; Smith et al., 1993).

Appraisals are therefore more proximal to emotions than attributions and are therefore better suited to explaining the variance in the intensity of emotional responses after a stressful experience. Empirical evidence also supports appraisals as being a more proximal variable to emotion than attributions. For example, Smith et al., (1993) tested the relationship between appraisals, attributions, and six different emotions. They found that appraisals were better at explaining the different emotions and that appraisals explained variance over and above what attributions could explain, but attributions were unable to explain additional variance to the same extent. León and Hernández (1998) found a similar result when investing the role of appraisals and attributions for explaining the variance in the emotions anger and guilt. Appraisals are therefore more suitable for explaining the variance in emotions after stressful experiences. For this reason, I use an appraisal framework to explain the variance in grief after firm failure. This forms the basis for the first study in the dissertation. A natural extension of this is to then consider the role of coping for managing feelings of grief and the implications this has on re-entry into self-employment and emotional recovery. This forms the basis for the second study in the dissertation.

Because attributions are about perceived factual information of the causes of an experience, they have the potential to help explain what is learned from an experience. Knowledge about why the firm failed provides entrepreneurs with important feedback information that can be useful when drawing inferences about why the firm failed. Since attributions also influence motivation, this framework has the potential to explain the relationship between what an entrepreneur learns from firm failure and his or her motivation to re-enter self-employment. Thus, an attribution framework can be used to understand how entrepreneurs learn from failure and the role that learning plays for motivation to re-enter self-employment. This forms the basis for the third study in the dissertation.
2.4 Human capital theory for understanding the implications of firm failure

Attribution theory (Weiner, 1985, 1986) and the transactional model of stress and adaption (Lazarus & Folkman, 1984) focus on the role of emotion and adaption for behavioural outcomes taking into consideration the subjective interpretation of the failure experience. Firm failure, however, can also result in severe financial consequences (Whyley, 1998) and this can provide entrepreneurs with important information regarding their return to human capital in self-employment. This information is likely to be factored into their decision making when deciding whether or not to re-enter self-employment (cf. Folta et al., 2010). While financial implications of a stressful experience are incorporated into the transactional model of stress and adaptation, the focus is on the role financial implications have for an individual’s emotional response to a stressful situation rather than on an informative role influencing future behaviour.

Human capital theory has been used to understand the entry decision into self-employment (Douglas & Shepherd, 2000; Evans & Jovanovic, 1989; Lévesque, Shepherd, & Douglas, 2002) and exit decisions out of self-employment (Gimeno et al., 1997). This theory uses economic logic to understand individuals’ career choices. Based on a utility maximizing framework, individuals choose an occupation or employment that maximizes the present value of economic and psychic benefits over their life-spans. A limitation with applying human capital theory for the entry decision into self-employment is that an individual must make this decision under the conditions of uncertainty (Knight, 1921) so the returns to this option are largely unknown. However, in the case of re-entry, into self-employment, however, this limitation is no longer as problematic because an individual has some knowledge regarding their return to human capital in self-employment. Entrepreneurs’ decisions to re-enter self-employment can therefore be framed within a human capital framework, where entrepreneurs incorporate the outcomes of their prior self-employment experience into their decision making. I therefore use human capital theory to investigate how the financial implications of failure influence entrepreneurs’ decisions to re-enter self-employment. This forms the basis for the fourth study in the dissertation.
2.5 Generalized research model

The four studies of the dissertation are presented in the figure below. They each contribute to understanding how the interpretation of the failure experience influences re-entry into self-employment.

![Generalized research model diagram]

Figure 2: Generalized research model
3 METHOD

In the method chapter, I outline my view on research. This is followed by a general overview of the research design. I then outline the bankruptcy process in Sweden as a precursor to the description of the pilot study and how this informed the main study and the data collection. I then outline how I developed the sample; followed by an examination of the response rate. I conclude the method section with a discussion on the limitations of the method and some general comments about the method approach.

In the description of the research design, I include my overall approach to the operationalization of constructs but leave the specific details of how each construct was operationalized to the specific studies. I take a similar approach with the control variables and leave the specific role that each control variable plays to the specific studies.

3.1 View on research

As a starting point, I outline my view on research. This provides a rationale for my method choices. I am interested in understanding the relationship between how an entrepreneur interprets firm failure and the implications this has on adaptive outcomes. In order to be able to make sense of challenging experiences, such as failure, it is important to have a frame of reference (Parkes, 1988). Knowledge about why something is happening provides a starting point for being able to make sense of what is happening (Parkes, 1988). As outlined in the theoretical framework, theories from psychology provide a framework for doing this. These theories have been successfully used to explain how individuals interpret a stressful experience and the implications this has for adaptive outcomes. This provides a theoretical foundation for investigating responses to firm failure. These theories are relational in nature and center on how individuals relate to their environment based on their subjective interpretation of experiences (Lazarus, 1999). I therefore believe that there are reasonably stable relationships between the implications of how individuals interpret experiences and the effects this has for their well-being. This is reflected in the research model presented in section 2.6.

In line with this approach, the theories I use are simplifications of reality and thus cannot account or explain the phenomenon of interest in its entirety. It is not possible to include every conceivable relationship in a theory; rather, the most salient relationships should be included. A consequence of this simplification is that partial explanation at best is what can be achieved (Parkes, 1988). In testing theories, past behavior and historical information are used to
predict future outcomes. This predication of future behavior is based on probabilities. This means that, in general, predictions made tend to be true on average, but rarely for the specific case. In line with this approach, the true test of a theory is whether or not it holds up to empirical testing in the long run (Parkes, 1988). Thus, it is assumed that if a theory is able to explain phenomena over the long run, then the theory is a reasonable approximation of reality. Therefore, this assumption also recognizes the fallibility of knowledge and that knowledge should therefore be considered as part of an ongoing social activity that is in a continuing process of transformation (Bhaskar, 2008).

3.2 Research design

3.2.1 General design issues

The inherent nature of stress and adaptation research requires a longitudinal design (Lazarus, 1993). Measuring coping strategies independently from their outcomes makes it possible to examine whether a coping strategy has positively or negatively affected adaptation. Hence, coping and adaptive outcomes need to be measured at different points in time. This is similar to studies that want to determine the effect of different firm strategies on firm performance. Performance should be a lagged variable to capture the effects of current strategy on performance (Wiklund, 1998). This helps to disentangle whether it is because entrepreneurs use adaptive coping strategies they increase their likelihood of re-entry and not because they have re-entered that they are now coping better. For this reason, I adopt a longitudinal research design.

One challenge of collecting data on entrepreneurs who have recently experienced failure is determining a reasonable length of time after their failure experience to contact them. Failure can be a difficult experience and the time surrounding the bankruptcy can be very stressful (Shepherd, 2003). In addition, entrepreneurs must deal with the practicalities of failure and, thus, are unlikely to be willing to talk to researchers and complete surveys directly after the bankruptcy. On the other hand, many variables of interest relate to how entrepreneurs respond and cope with failure; thus, waiting an extended period of time after the failure experience can result in many variables of interest no longer being relevant. This is a common challenge in research of this nature (Fugate, Kinicki, & Prussia, 2008). It is not just determining the time frame for the initial contact that poses challenges for researchers, but also the timing of follow-up surveys (Fugate et al., 2008). Waiting too long can introduce a range of intervening variables that make isolating the relationships between research variables much more difficult. On the other hand, contacting individuals too quickly can make it difficult to capture changes in the variables of interest. There is no set rule for determining the best time frame for data collection; of importance is balancing the timing of the surveys so the relationships of
interest can be tested. To do this, I contacted owner-managers of bankrupt firms approximately 6 months after the bankruptcy was filed and again for follow-up surveys an additional 3 times every 6 months. Results from the pilot study indicated that respondents were willing to participate in academic research regarding their experiences 6 months after the bankruptcy and that there was variance in relation to how these individuals responded to the bankruptcy. Hence, the 6 month time frame was deemed appropriate for this study.

Prior research on failure has also suggested that retrospective bias can make investigating firm failure difficult (Sarasvathy & Menon, 2003; Shepherd & Wiklund, 2006) and therefore, entrepreneurs should be contacted as close to the time of failure as possible. While I attempt to do this, retrospective bias is not a significant issue in the current research because the focus is on the implications of the current interpretation of the failure rather than on determining the actual cause of the failure or the emotions felt at the time of the bankruptcy. Thus, the questions asked are not about how respondents felt at the time of the bankruptcy, but are concerned with how they currently feel. The same logic applies for the other questions in the research: they focus on what the respondent is currently thinking and doing.

For the purposes of this study, I defined an entrepreneur as an active-owner manager. This reflects the view that ownership and decision making are central to entrepreneurship (Gartner, 1990). I also limited my focus to limited liability firms because in sole proprietorships, it is not possible to identify if the cause of the bankruptcy was due to poor firm performance, or if it was a result of actions taken by the entrepreneur in their personal life.

To collect the data, I used a combination of telephone interviewing and pen and paper mail surveys. This has a number of advantages. The telephone interview was used to determine the relevance of the respondent, to introduce the study, and to try and increase the response rate. Telephone interviewing is advantageous because the progression of the telephone interview can be tailored depending on the answers given (Davidsson, 2008). This enables the customization of the questions depending on the specific responses. For example, if a respondent had re-entered self-employment after the bankruptcy, a set of questions regarding the growth expectations of the new firm were asked. If the respondent had not re-entered, they were asked a set of questions about their motivation to re-enter self-employment.

The initial telephone interview consisted of 50 questions and took around 8 minutes to complete. The questions covered characteristics of the firm, including size and industry; characteristics of the entrepreneur, including education, prior experience, and number of hours worked in the firm; and the financial situation of the entrepreneur and their entrepreneurial motivation.
These questions were suitable for asking over the telephone. The mail survey included the majority of questions that were asked on a Likert scale and were therefore more suited to this form of data collection. In the follow-up telephone interviews, a shorter telephone protocol was used that either focused on the respondent’s entrepreneurial motivation if they had not started a new firm since the bankruptcy or, if they had started a new firm since the bankruptcy, the interview focused on the similarity of the new firm in comparison with the bankrupt firm, the expected growth the new firm, and the respondent’s growth intentions for the firm. The complete list of questions asked in the first telephone interview is included in appendix 1, the questions asked in the mail survey in appendix 2, and the questions asked in the follow-up telephone interviews in appendix 3. The questions used in the survey underwent pilot testing. The pilot test is outlined in section 3.4. The translation process used native Swedish and English speakers who were familiar with research until a satisfactory translation was achieved. This meant that, for some questions, the translation process underwent more than one round of translation and back translation. During this process, the underlying theoretical construct was also referred back to.

I followed a number of recommended suggestions for encouraging respondents to participate in the study (Dillman, 2000). When the telephone interview protocol was discussed with the interviewers, a number of suggestions were given that they could use to encourage respondents to participate in the study if they were hesitant about doing so. These included explaining to respondents how valuable their participation would be for understanding how entrepreneurs experience bankruptcy and the broader implications of having more information about this. The mail questionnaire was printed as a professional booklet with a clean layout and the purpose of the study explained. The respondents were also thanked for taking the time to participate in the study. A three wave mailing was done for each round of data collection (initial survey and two reminder surveys sent to those who had not responded). On conclusion of the mail questionnaire in the second, third, and fourth round of data collection, respondents were asked whether they would like a copy of the results. Over 120 respondents asked for a copy of the results. This reflects that the study was also of interest to them. I did not offer this option in the first round of data collection as I was concerned that I might not have interesting results to report back to the respondents. In hindsight, I realize that I should have also offered this option in the first mail survey.

**3.2.2 Operationalization of constructs**

To operationalize the constructs in the model, I used, where possible, established measures that have been shown to reflect the underlying theoretical construct. I spent considerable time reviewing measurement scales prior to selecting them. In this process, I took into consideration not only that they had
been shown to have sound measurement properties, but also considered the specific empirical context of the study. This helped ensure that I used measurement scales with good construct validity and high face validity. I also used the pilot study to help refine the variables used in the main study and test the suitability of the chosen measures in the context of firm failure.

I also tried to use parsimonious measures. Many of the constructs of interest have been operationalized comprehensively by psychologists. However, there is a trade-off between using these measures and allowing room in the survey for additional variables of interest to be included, and therefore potentially maximizing the use of the data collected (Carver, 1997; Davidsson, 2004). Another reason for choosing parsimonious measures is that the variables of interest have not been empirically investigated in the context of firm failure. Prior research has expressed concern regarding the willingness of entrepreneurs to share their failure experiences. The use of parsimonious measures can therefore help increase the likelihood that respondents would be willing to respond to the survey.

Pilot testing also showed substantial variance in relation to how entrepreneurs responded to failure. Therefore, this strategy also reduces the risk of potential respondents feeling that the questions asked are not relevant for them. For example, in the case of grief, most measures have been designed to capture grief after experiencing the loss of a loved one (e.g. Hogan, Greenfield, & Schmidt, 2001). In this case, there is a strong assumption that the respondent feels many effects of grief. In the case of firm failure, however, prior research has suggested that this loss does not necessarily imply failure of the entrepreneur (Sarasvathy & Menon, 2003; Sarasvathy, 2004). This suggests that not all entrepreneurs are likely to have intense feelings of grief after experiencing firm failure. As such, comprehensive grief measures may only be appropriate for a subset of entrepreneurs who have experienced firm failure.

This trade-off between comprehensive measures and parsimonious measures was particularly relevant in the case for operationalizing coping and grief. I solved this in different ways for each construct. In the case of grief, I used a parsimonious measurement scale that had been used in a similar empirical context: work site closure (Blau, 2007). In the case of coping, I used the Brief Cope measurement scale developed by Carver (1997) in the pilot study. This scale includes items to capture 14 different coping strategies. I used the results from the pilot study in combination with a review of the coping literature to support narrowing the number of coping strategies included in the main study to three of the most commonly used coping strategies after stressful experiences. More details regarding this are outlined in section 3.4 and in the second study.
3 Method

It was also possible to use an established measure for the operationalization of attributions. In case of appraisals, it has been shown that appraisals exhibit more variation than consistency across situations and this is particularly the case for work settings (Dewe, 1991). I therefore took as a starting point the factors that make a situation stressful in general and also took into consideration the factors that make firm failure particularly stressful. The process I used forms the basis for the first study included in the thesis. Learning was particularly challenging to operationalize. There are no established measures to capture learning related to self-employment knowledge from failure. I therefore developed a measure for the specific purposes of this study. I took into consideration the theoretical construct I was interested in, how prior research has operationalized learning, and the empirical limitations of capturing it. The process of how I operationalized learning is outlined in the third study.

3.2.3 Data analysis

To analyze the data, I took the starting point that it makes most sense to first understand the initial reactions to failure before investigating their longer term implications. This meant an initial focus on the first wave of data collection. The first and third studies focus on the initial implications of failure and therefore use this data. Studies two and four focus on adaptive outcomes, to investigate them, I use a longitudinal design with lagged dependent variables. A consequence of these decisions is that I did not make full use of the panel design. One reason for this was the drop off of cases at each data collection point. There were also a number of respondents who answered some of the later mail questionnaires, but not the initial mail questionnaire. This resulted in a small and unbalanced panel where there were not sufficient degrees of freedom to analyze the data as a full panel. The response rates to each round of data collection and the number of cases in the full panel is shown in table 3 in section 3.6.3.2.

I used logistic regression to analyze the data when re-entry into self-employment was the dependent variable and ordinary linear regression analysis for the other dependent variables. I used the statistical software programs SPSS and STATA for these analyses. Where applicable I ran path analyses in AMOS to confirm the overall structure of the research models and to test the indirect effects in the mediation models.

I used factor analysis to confirm the reliability of the measures. This reflects that the items included in the measurement scale relate to each other (Hair, Black, Babin, Anderson, & Tatham, 2006). I did this using exploratory factor analysis in SPSS and confirmatory factor analysis in AMOS. I also checked the discriminant validity of the factors using confirmatory factor analysis.
3.3 Swedish bankruptcy process – Limited liability firms

To provide the context for the study and a background to the sampling approach, I outline the Swedish bankruptcy process. This also has relevance for the generalizability of the findings.

In Sweden, a firm is bankrupt when it can no longer pay its liabilities and the inability to pay bills is not temporary; either a member of the board or a creditor can file for bankruptcy. The Swedish bankruptcy code is based on a cash auction procedure and is therefore similar to Chapter 7 of the U.S. bankruptcy code (Thorburn, 1998). Once a firm has filed for bankruptcy, a court appointed trustee takes control over the firm and neither the management nor any of the firm's security holders retain any control rights. The trustee appointed by the court acts in the best interests of the creditors. The firm is then auctioned off as either a going concern or the assets are sold piecemeal. The trustee decides the sale of the assets and distributes the proceeds to the creditors. The administrative and advisory costs, along with any other costs incurred during the bankruptcy proceedings, receive the highest priority. This is followed by secured claims, certain audit claims, tax claims, wage claims, and then unsecured claims (Thorburn, 1998). A supervisory body oversees this process. The Swedish government also guarantees the payment of each employees’ wages up to the amount of 171 200 Swedish Krona for a period of 4 months. The Swedish bankruptcy process is therefore in contrast to the U.S. Chapter 11 bankruptcy code that allows firms to reorganize under court supervision (Thorburn, 1998). More details regarding the Swedish bankruptcy code can be found in (Thorburn, 2000) and in the country report written for Sweden as part of the European Commission’s department for Enterprise and Industry study on ‘Bankruptcy and a fresh start: Stigma on failure and legal consequences of bankruptcy’ (European Commission, 2002).

3.3.1 Exceptions to limited liability

Formally, a company’s board members do not bear responsibility for the company’s debts. There are two exceptions to this rule. The first: board members can become responsible for the firm’s new debt obligations if they continue to run the firm when the equity capital is less than half the share capital. The law outlining when this is the case is explained in the following paragraph. This law is in place to protect creditors from the firm abusing the fact that owners do have a personal responsibility for the debts of the firm (Lundén, 2011).
The minimum amount of share capital a limited liability firm must have is 100,000 Swedish Krona. This can be interpreted as a buffer that protects creditors. If the board members have reason to believe that the equity in the firm is less than half the firm’s share capital, the board members must, by law, immediately have an auditor review the firm’s balance sheet for insolvency purposes (Skog & Fäger, 2007). In this balance sheet, inventory is valued at the lowest acquisition value and includes the costs associated with selling the inventory (Lundén, 2011). If the firm’s equity is less than half the firm’s share capital, the firm’s board must convene for a general meeting and decide whether they will liquidate the firm or continue operations. If the firm chooses to continue operations, they have 8 months to restore the ratio between the share capital and equity of the firm. Within this time frame, a new balance sheet must be prepared and a new general meeting held. If there is not full coverage of the share capital, the firm must be placed into liquidation within 2 weeks; otherwise, the board members become personally responsible for debt obligations that are incurred after the 8 month grace period.

If these steps are not followed, a board member can also become personally responsible for the debt obligations. Thus, if the board fails to have an auditor review the balance sheet for insolvency purposes when they have reason to suspect (or should have had reason to suspect) that the equity in the firm may be less than half the share capital or if the board fails to call a board meeting to discuss the shortage of capital (Löfgren & Kornfeld, 2002), they can also become responsible for debt obligations that incur after the 8 month grace period. In addition, they can be subject to a fine for not following the correct procedure. If the firm then enters bankruptcy proceedings while the board members are responsible for the debt obligations, the filing for bankruptcy does not terminate this obligation (Oppenheimer, Blomberg, Bruhn, & Reiner, 2007).

The second exception to board members’ responsibility for company debts is that the board members can become personally responsible for the firm’s tax debt—this includes payroll tax, employer’s contribution for national insurance, and value added tax—if the board has intentionally not paid taxes or acted with gross negligence. This is usually deemed the case if the firm had the funds to pay the tax obligation at the date it was due or near this date (Rydling, 2008). It is the judge in each case who decides if the board has intentionally not paid taxes or acted with gross negligence (Rydling, 2008).

### 3.3.2 Liquidation as a pre-step to bankruptcy

Board members can choose to freely liquidate their firms, provided more than half of the shareholders agree to this, or the firm can be forced into liquidation because the company law has not been followed correctly. Entrepreneurs who choose to freely liquidate their companies often do this for retirement, if the
firm is not generating sufficient income, as a way to change company form from a limited liability company to a partnership or sole proprietorship, or as a way to sell the company (Lundén, 2011). These liquidations usually end with a positive financial result. Forced liquidation is usually done by the Swedish Companies Registration Office. The two most common reasons for this is because either (1) there has been no notification to the Swedish Companies Registration Office regarding who are the board members of the firm and who is the qualified accountant for the firm, or (2) the annual report for the company has not been filed with Swedish Companies Registration Office within 15 months of the start of the financial year (Oppenheimer et al., 2007).

In most forced liquidations, the company is placed into bankruptcy proceedings approximately one month after the liquidation (Oppenheimer et al., 2007). Usually these firms have not been active for some time and have substantial debts (Oppenheimer et al., 2007). Thus, it is also likely that the board members of these firms have personal liability for some of the firms’ debt obligations. This suggests that the firms that enter bankruptcy via forced liquidation may be substantially different from the firms that file directly for bankruptcy. This can influence how the entrepreneur responds to the bankruptcy. For example, if they have not actively been involved in the running of the business for some time, this is likely to influence how they respond to the bankruptcy. The substantial debts of these firms may also make it harder more difficult to reach these entrepreneurs. Contact with liquidators confirmed this assumption. It was more difficult to find the contact details to the entrepreneurs of these firms because many had “gone underground,” according to the liquidators, and could not be reached. This suggests that these entrepreneurs are likely to respond differently from entrepreneurs who do not file for liquidation prior to bankruptcy and were therefore excluded from the sampling frame.

### 3.3.3 Stigma of bankruptcy

There is substantial stigma associated with bankruptcy in Sweden (Ahle, 2010; Falkenhall & Wennberg, 2010). Historically, bankruptcy was associated with fraudulent behavior and entrepreneurs were punished accordingly (Ahle, 2010). In the 1830s, the bankruptcy law forbid an insolvent debtor to leave their house before the first court ruling and the creditors also had the right to keep the debtor under close surveillance (Ahle, 2010). Bankruptcy is still associated with shame and mistrust in Sweden despite only 4% of bankruptcies being associated with improper conduct (Sannesson, 2011). This history of mistrust is also reflected in the Swedish bankruptcy laws (Ahle, 2010). For example, once the firm is placed into bankruptcy, the board no longer has control over the firm’s assets or the possibility to continue to run the firm; this responsibility is given to the bankruptcy trustee.
3 Method

The current personal insolvency laws are also very strict in Sweden. This has relevance for the stigma associated with firm failure because banks are usually the main creditor to small companies and often require the entrepreneur to provide a personal guarantee for firm loans (Falkenhall & Wennberg, 2010; Lundén, 2011). There is no homestead exemption in Sweden and the debt reconstruction process requires an individual to live on the bare minimum for 5 years while all income over this time is used to pay creditors. It is also common for individuals who are in substantial debt to feel shame, isolation, and experience lower health than the regular population (Kronofogden, 2008), reflecting the stigma associated with indebtedness in Sweden. The personal insolvency laws can therefore substantially increase the risk of using debt to finance a start-up or to expand a firm (Falkenhall & Wennberg, 2010).

The stigma associated with failure reflects the findings of a recent Eurobarometer survey that asked respondents whether they would order goods from a merchant who had previously failed. Sweden was the country with the highest percentage (over 65%) of respondents who stated that they would not order goods (Armour & Cumming, 2005). This is compared to the U.S. and the other 13 European countries included in the survey. The next highest percentage was Italy, where just over 50% of respondents said they would not order goods from a merchant who had previously failed. For comparison purposes, the percentage in the U.S. was 45. More generally, anecdotal evidence suggests that the stigma associated with failure is higher in Europe than in the U.S. (Landier, 2005). For example:

In Europe, a serious social stigma is attached to bankruptcy. In the USA bankruptcy laws allow entrepreneurs who fail to start again relatively quickly and failure is considered to be part of the learning process. In Europe those who go bankrupt tend to be considered as “losers”. They face great difficulty to finance a new venture. (Cited in Landier, 2005, p. 6, Communication by the European Commission, 1998).

3.4 Collecting data on entrepreneurs who have experienced firm failure

The stigma associated with bankruptcy is one reason that it has been suggested that it is difficult to find entrepreneurs willing to participate in academic research on this experience (Shepherd & Wiklund, 2006). The challenge of locating failed entrepreneurs is another. The following two statements illustrate this:
The primary reason for the paucity of evidence about the success and failure of entrepreneurs as distinct from firms consists in the fact that while evidence on failed firms is hard enough to obtain (the data usually disappear along with the demise of the firm), evidence on failed entrepreneurs is well-nigh impossible to come by. People just simply do not walk around with business cards that say “failed entrepreneur.” Most founders of failed firms either dust themselves off and go on to start other firms or are serial entrepreneurs who have previously been successful. Both these groups tend not to mention their failed firms except as part of uplifting anecdotes in public speeches, after the fact. The few truly “failed entrepreneurs” seemingly disappear off the face of the economy forever leaving us, entrepreneurship scholars, without any traces to follow in our pursuit of understanding them” (Sarasvathy & Menon, 2003, p.8).

The study of entrepreneurial failure is important and valuable in assisting entrepreneurs and VCs in overcoming the problems that new ventures face. However, the question remains as to whether large-scale empirical research is feasible. Once a venture fails, it is difficult to locate many secondary sources of data for what are mostly privately held firms. It is also difficult to contact the entrepreneur once a firm ceases to exist. Even when the entrepreneur is located, he or she may resist participating because of the pain of the failure. The question is how to overcome these obstacles (Zacharakis et al., 1999 p. 12).

Sweden is a good context for investigating the implications of firm failure for entrepreneurs; it is possible to overcome the obstacles outlined in previous research regarding the challenges of collecting data from failed entrepreneurs while still being able to capture the variables of interest. This is for three main reasons. First, the previously outlined stigma associated with bankruptcy means that the economic and emotional consequences associated with firm failure identified in the literature can be captured. Second, Sweden keeps excellent records on firm activities; thus, secondary data on firm bankruptcies and the board members of these firms can be obtained. Third, survey response rates tend to be higher in Sweden in comparison to the U.S., Latin America, and larger European countries (Harzing, 2000), thereby increasing the likelihood of being able to successfully receive responses from entrepreneurs who have experienced failure.
3 Method

3.5 The pilot study

In this section I outline the purpose of the pilot study, explain how it informed the selection of measures used in the main study, and conclude the section with the overall findings from the pilot study.

3.5.1 Purpose and design

A pilot study was conducted to assess the willingness of entrepreneurs who had experienced a firm bankruptcy to participate in an academic study about their experiences. This was to determine whether a sufficiently high response rate could be achieved prior to conducting the study on a larger scale. I thought that it was particularly important to assess the feasibility of the research given the stigma associated with failure and the reservations that prior research has had about entrepreneurs' willingness to participate in such studies. This provided information regarding the cost of the research project and this could also be factored into the research design. The pilot study was also used to pre-test the different measures used in the study.

Prior to the pilot study, four academics with expertise in survey design were asked to provide feedback on the questionnaire and three doctoral students filled in the questionnaire to gauge the time it would take to complete it. They were also asked to provide feedback on the clarity of the questions.

The pilot study consisted of 49 telephone interviews with respondents who had been on the board of a firm that had gone bankrupt. The information regarding the firms and the members of the board was found using a database that keeps records of all limited liability firms in Sweden: Affärsdata. The contact details of the board members were found using an online telephone directory. Over 70% of the entrepreneurs contacted agreed to participate in the telephone interview. As part of the interview, the respondents were asked whether they would also be willing to participate in a mail survey. Forty six respondents agreed to participate in the mail survey and 24 mail surveys were returned. This information was combined with three additional responses from when the survey was pre-tested prior to the pilot study on entrepreneurs who had recently experienced a firm bankruptcy. The analysis of the results from the pilot study is based on these 27 answers.

3.5.2 Construct operationalization and implications for the main study

The pilot study was used to test the operationalizations of the constructs in the model. After analyzing the results of the pilot study, two main changes were made to the questionnaire. These changes relate to the emotions and coping strategies included in the main survey instrument. I also used the pilot study to
test the suitability of the scale used to measure attributions in the setting of entrepreneurs’ responses to firm failure.

3.5.2.1 Emotions

In the pilot study, I included the emotions guilt and shame because they are some of the most studied emotions within the cognitive-emotion framework (Graham, 1991; León & Hernández, 1998; Smith et al., 1993; Tangney, Miller, Flicker, & Barlow, 1996) in addition to a grief measure. The measure, developed by Tangney et al., (1996), was used to capture shame and guilt; grief was measured using the scale developed by Blau (2007).

Based on the pilot study results, it seemed unlikely that differences between guilt and shame would be borne out in the data because respondents either felt the full range of negative emotions or they did not feel negative emotions at all. This suggests that teasing out the finite differences between negative emotions would be difficult as they are highly correlated. Most of the prior research on guilt and shame has taken place in controlled settings or involved very specific experiences that where designed to capture the difference between these emotions. The artificial settings of controlled experiments do not capture high stake experiences and are thus more suitable for identifying subtle differences between emotions. Firm failure, on the other hand, is a significant life event for an entrepreneur and many emotions are likely involved. For example, an entrepreneur is likely to feel a combination of different negative emotions, such as despair, anger, anxiety, guilt, and frustration (Singh et al., 2007). This makes isolating the relationships between emotions and their antecedents much more difficult. Based on this result, I continued to focus on why some entrepreneurs are likely to feel negative emotions in general after experiencing bankruptcy rather than focus on investigating the antecedents to specific emotions.

3.5.2.2 Coping

Coping research has focused on identifying the full range of coping strategies used by individuals in stressful situations and the main protocols for measuring coping strategies reflect this (Carver, Scheier, & Weintraub, 1989; Folkman & Lazarus, 1988b; Skinner et al., 2003). These measures contain approximately 60 questions and while comprehensive, also limit the available space in the questionnaire for other variables of interest. This limits the range of hypotheses that can be tested and, potentially, the maximum use of the data and respondents’ time (Carver, 1997). The approach I took in the pilot study was to use the Brief Cope questionnaire developed by Carver (1997) to identify the main coping strategies used by entrepreneurs who had experienced firm failure. This questionnaire is based on the Ways of Coping Questionnaire developed by (Carver et al., 1989), but uses two items for each scale rather than four. The two items selected to represent each scale had the highest loadings in the original analysis (Carver, 1997).
3 Method

Based on the results from the pilot study, the coping strategies related to active planning, emotional support, and self-distraction/avoidance were actively used by many of the entrepreneurs; other coping strategies, such as finding humor in the situation and using faith or religion were used by only a small percentage of respondents. There was also a conceptual overlap between the coping strategies of denial, acceptance, and positive reappraisal with the items in the grief measure. Based on these findings, I decided to include the coping strategies active planning, emotional support, and self-distraction/avoidance in the main study and to use a comprehensive measure to capture them. These coping strategies have also been identified in previous work on the main coping strategies used for managing stressful encounters (e.g. Gutiérrez, Peri, Torres, Caseras, & Valdés, 2007; Skinner et al., 2003). This provides additional support for using these coping strategies in the main study. I therefore took the approach that it is better to measure a smaller range of coping strategies, but use comprehensive measure to do so, rather than measure all identified coping strategies using a brief scale.

Limiting the number of coping strategies included in the survey also reduces the participant response burden (Carver, 1997). Prior research has found that respondents can become frustrated when filling in comprehensive coping scales that include all identified coping strategies because of their length and the similarity of items (Carver et al., 1993). In the main study, I used items from Ways of Coping Questionnaire developed by Folkman and Lazarus (1988b) because the theoretical framework in this dissertation builds directly on their work.

3.5.2.3 Attributions

To measure attributions for the causes of the bankruptcy, I used the revised causal dimension scale developed by McAuley et al., (1992). The advantage of this measure is that it avoids the “the fundamental attribution researcher error” (Russell, 1982), which assumes that researchers can accurately determine where a respondents’ attribution for an experience falls within the attribution dimensions: locus of causality, locus of stability and controllability. Attributions are often measured using a free response format where the respondent states the cause of the outcome. Alternatively, the respondent is provided with a list of potential causes and they rate the contribution of each cause to the outcome. In both cases, the researcher then classifies where an attribution is placed within the attribution dimensions. These approaches therefore assume that the researcher and the subject place the same meaning to the causal attribution. The placement of a causal attribution within the causal dimension framework, however, may vary from person to person (Weiner, 1979). A simple example illustrates the problem. A common attribution for the firm failure was internal conflicts within the management of the firm. Whether this is something that the entrepreneur felt they had control over can only be determined by the
entrepreneur. It is not possible for a researcher to make an accurate interpretation of this. For this reason, the scale developed by McAuley et al., (1992) was used. When administering this scale, the respondent is first asked in a free response format the main cause of the failure. This was directly followed by the respondent stating how the attribution relates to the attribution dimensions identified by Weiner in a set of opposite statements. Each dimension is operationalized using three items. Because each dimension is on a continuum, opposite statements capture this.

This scale, however, has been criticized as being conceptually difficult for respondents (Benson, 1989; Rees, Ingledew, & Hardy, 2005). The pilot study was therefore used to determine whether respondents could understand the survey instrument and usable answers could be obtained. I checked whether respondents answered all the questions, the correlations between the items, whether respondents used the full range of the scale, and whether the responses given to each question could be reflected in the main cause given in the open-ended prompt question. Based on these checks, I found that the survey instrument was appropriate to use in the main study. In addition to checking the feasibility of the measure, I also made slight adjustments to the translation of some item statements to better reflect the attribution dimensions in the context of firm failure.

2.5.2.4 Overall findings

A more general finding from the pilot study was that provided a respondent could be reached, they were willing to participate in the study. I also found that there was a reasonable distribution of answers to the main variables of interest; thus, it was still possible to capture the variance in responses to firm failure using this survey method. Based on the findings from the pilot study, I also refined both the questionnaire in preparation for the main study and the qualification questions for the study so only active owner-managers were surveyed.

3.5 Sample and data collection for the main study

3.6.1 Sampling frame and unit of analysis

It is important to identify a representative sample that reflects the statistical and theoretical requirements of the study (Davidsson, 2004). As outlined in section 2.1, I define firm failure as firm insolvency and operationalize this as bankruptcy. This is because bankruptcy captures that (a) the firm has failed for financial reasons, (b) there is potential for variance in responses to failure, and (c) failure is distinguished from the broader concept of exit.
By using bankruptcy to define failure, the sample frame is defined at the firm level. I then investigate entrepreneurs’ responses to the failure. The individual is therefore the unit of analysis. I define an entrepreneur as an individual who has an ownership stake in the firm and is actively involved in running the firm. Ownership could be either majority or minority ownership to reflect the fact that many firms are owned and managed by a team (Ucbasaran et al., 2008). This definition reflects the view that ownership and decision making are central to entrepreneurship (Gartner, 1990). The combination of being an active-owner-manager is particularly important when investigating the influence firm failure can have on an entrepreneur. If owners who were not active managers are included in the study, the situation resembles a loss of an investment but not the loss of an occupation. The individual therefore assumes the role of an investor rather than entrepreneur. Alternatively, if managers are included who were not owners; the situation resembles job loss rather than firm failure. The individual assumes the role of an employee rather than an entrepreneur.

3.6.2 Developing the sample

Publically available data in Sweden contains information about all incorporated firms that go bankrupt and the identities of all board members of these bankrupt firms. I constructed a sampling frame consisting of all limited liability firms that had filed directly for bankruptcy in Sweden during September, October, and November of 2008: exactly 1000 firms. The exact process for identifying the sampling frame is outlined in figure 1. As a starting point, I aimed to find as many contact details to the board members of the bankrupt firms as possible. This is because it was not possible to identify, a priori, board members who were active owner-managers from board members who were not active owner-managers. Based on secondary data, I first identified the board members of each firm. This resulted in 25 firms being excluded from the sample because all of their board members were registered as living overseas at the time of the bankruptcy. An additional 37 firms did not have any board members registered at the time of the bankruptcy. These firms were also excluded from the sampling frame. This resulted in 938 firms that had board members who were registered as living in Sweden at the time of the bankruptcy. There were 1,358 registered board members for these firms. 34 firms did not have a unique board member. In other words, all board members of these 34 firms were members on the board of at least one other firm. In most cases, these firms were very similar to another firm run by the board member(s). For example, two shops located in two, different towns that both went bankrupt were registered as two, separate firms. 89 individuals were registered as a board member with more than one firm. Therefore, there were 1,269 unique board members in the sample. Based on secondary data, 23 of these board members were registered as living overseas at the time of the bankruptcy and were excluded from the study due to difficulties in locating
them. I then used each board member’s national registration number to confirm their current residential address in the Swedish national registry of inhabitants. I could not locate 71 individuals in this registry. The most likely explanations were that they had moved overseas, died, or gone underground. For the remaining 1,174 board members, I used an online telephone registry service to find their telephone numbers. This involved matching the individuals’ registered address with their name. This resulted in 663 phone numbers to landlines and 768 numbers to mobile telephone, to a total of 944 board members. An additional 42 telephone numbers were found by cross referencing the available details about the board member. For the remaining 188 board members where a telephone number had not been found over a four day period, the trustee of the bankruptcy was contacted. This process resulted in additional 17 contact numbers. Also, I found that three bankruptcies were associated with criminal activity, while one board member was currently incarcerated and four were currently overseas. Each bankruptcy trustee was called on at least two occasions, but were difficult to reach. In addition, more often than not, either the trustee did not want to give out the telephone number or they did not have a contact number to the board member. This process was therefore discontinued.

In total, 1,003 board members’ telephone numbers were located from 885 different firms. Given that there were 896 firms where it might have been possible to find a contact number, this was a good result. This takes into consideration the 96 firms excluded from the sample frame when no board members were registered as living in Sweden; the additional information was from the bankruptcy trustees regarding the board members of the 8 firms where the only board member registered to the firm was either in jail or overseas because the firm was involved in criminal activity. Thus, there were only 11 firms where a contact number to a board member was not located and 163 board members where no contact details or information regarding the board member could be obtained.

Because active owner-managers cannot be identified a priori from non-active owner-managers, all board members were contacted over the telephone and asked the following qualification questions: (1) “Were you actively running the company at the time of bankruptcy?” and (2) “Did you have an ownership stake in the company at the time of bankruptcy?” If they responded positively to both questions, they were asked whether they would be willing to participate in a telephone interview and, on conclusion of the telephone interview, whether they would accept a mail questionnaire.

Experienced interviewers were responsible for the telephone interviewing. Prior to the commencement of the interviewing, the questions were talked through and the purpose of the research was explained. The progress of the
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interviewing was continuously monitored to maintain consistency across the interviews.

A key informant approach was adopted (Kumar, Stern, & Anderson, 1993) where answers from the first qualified respondent for each firm were used in the final analysis. If an individual was connected to more than one firm that went bankrupt during the survey period, they were instructed to provide answers for the firm where they had been most active. The telephone interviewing took place in March, April, and early May of 2009. This was approximately 6 months after filing for bankruptcy.

A total of 284 interviews were conducted with active owner-managers. 238 respondents accepted to receive the mail questionnaire and, after a three-wave mailing (i.e. two reminders), 126 valid mail questionnaires were returned. An additional 17 interviews were conducted with owner-managers, although an owner-manager from the firm had already been interviewed. These additional interviews were conducted to collect additional information about the firm. An additional 26 interviews were conducted with individuals who were connected to the firm, but did not fill the requirement of an active-owner manager. These individuals either had a small ownership stake in the firm, but were not involved in the daily running of the firm, or they were involved in the daily running of the firm, but did not have an ownership stake. At the time of interviewing, these respondents were deemed the best available respondent for the firm and were therefore interviewed. They were excluded from the analysis because they did not fill the requirement of being an active-owner manager.
Figure 3 Development of the Sample

- 1000 Firms
  - 25 Firms - all board members registered living overseas at the time of the bankruptcy
  - 37 firms - no board member registered
  - 34 firms - no unique board member

- 938 Firms with at least one board member registered as living in Sweden at the time of the bankruptcy
  - 89 board members - on the board of more than one firm
  - 71 board member - not in the Swedish national register
  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

- 1358 board members connected to at least one of these firms
  - 89 board members - on the board of more than one firm
  - 71 board member - not in the Swedish national register
  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

- 1269 unique board members
  - 89 board members - on the board of more than one firm
  - 71 board member - not in the Swedish national register
  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

- 1174 board members with a registered address in Sweden
  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

- 944 contact phone numbers from the telephone directory service
  - 230 no contact number from the telephone directory service

- 42 Contact numbers via manual search
  - 188 board members with no contact number – contact bankruptcy receiver

- 1358 board members
  - 89 board members - on the board of more than one firm
  - 71 board member - not in the Swedish national register
  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

- 1269 unique board members
  - 89 board members - on the board of more than one firm
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- 938 Firms with at least one board member registered as living in Sweden at the time of the bankruptcy
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  - 23 board members - registered as overseas at the time of the bankruptcy
  - 230 no contact number from the telephone directory service

Figure 3 Development of the Sample
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3.6.3 Response rate

3.6.3.1 Initial telephone interview

Based on the total of 1,000 firms in the sampling frame, the response rate is simple to calculate. The response rate to the initial telephone interview was therefore 28.4% and the response rate to the first mail questionnaire was therefore 12.6%. However, a more detailed analysis of the response rate to the initial telephone interview is presented in Table 2 below. The first column shows a detailed list of reasons why potential respondents did not participate in the telephone interview; the second and third columns show the response based on the key informant approach. In the fourth and fifth columns, I show the response based on the total number of board members included in the sample. A number of response alternatives require further elaboration. Approximately 12 % of the sample that were reached over the telephone refused to participate in the study. In the cases where a reason was given, this was either due to lack of time or because the respondent did not want to talk about the bankruptcy. The latter cases suggest that some variance in the research variables may not be captured. Approximately 6 % of the sample agreed to participate in the study, but did not want to be interviewed when they were first contacted. An alternative time was booked for the interview and, despite many attempts to reach the respondent, they either continued to postpone the interview or did not answer the phone at the agreed upon time. These respondents were coded with a response alternative passive refused. Over 200 respondents did not answer their phone despite calling them at different times during the day and on weekends. This reflects the difficulty in reaching respondents in the context of firm failure.
Table 2 Response rate to the first telephone interview

<table>
<thead>
<tr>
<th>Response Alternative</th>
<th>Interviews Key Informant Approach % N (1000 firms)</th>
<th>Interviews – Total number of potential respondent % N (1003 Board members)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewed</td>
<td>284</td>
<td>301</td>
</tr>
<tr>
<td>Interviewed but not active owner-manager</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Refused</td>
<td>108</td>
<td>125</td>
</tr>
<tr>
<td>Passive refused</td>
<td>53</td>
<td>58</td>
</tr>
<tr>
<td>Deceased</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Very Sick</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hearing problem</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Could not speak Swedish</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Overseas</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Connected to the company but wrong person</td>
<td>24</td>
<td>78</td>
</tr>
<tr>
<td>Not reachable</td>
<td>232</td>
<td>249</td>
</tr>
<tr>
<td>Wrong number</td>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>Individuals who shared the same number as another respondent</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Interview cut off</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Number not in use</td>
<td>72</td>
<td>81</td>
</tr>
<tr>
<td>Police investigation with the respondent</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bankruptcy recalled</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Company was a foundation</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>885</td>
<td>1003</td>
</tr>
</tbody>
</table>

If only the respondents who could be reached over the telephone are considered, the response rate to the telephone interview was 61%. This suggests that, provided a respondent could be reached, they would more often than not be willing to participate in the telephone interview. 23% of respondents who could be reached refused to participate in the telephone interview and 11% agreed to be interviewed at a later time, but could not be reached for the interview.
Table 3: Response rate - telephone interview for those who could be reached

<table>
<thead>
<tr>
<th>Response Alternative</th>
<th>Interviews Key Approach</th>
<th>% N 461 contacted owner-managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewed</td>
<td>284</td>
<td>61.61</td>
</tr>
<tr>
<td>Refused</td>
<td>108</td>
<td>23.43</td>
</tr>
<tr>
<td>Passive refused</td>
<td>53</td>
<td>11.50</td>
</tr>
<tr>
<td>Dead</td>
<td>4</td>
<td>0.87</td>
</tr>
<tr>
<td>Very Sick</td>
<td>2</td>
<td>0.43</td>
</tr>
<tr>
<td>Hearing problem</td>
<td>1</td>
<td>0.22</td>
</tr>
<tr>
<td>Could not speak Swedish</td>
<td>9</td>
<td>1.95</td>
</tr>
<tr>
<td>Total</td>
<td>461</td>
<td>100</td>
</tr>
</tbody>
</table>

3.6.3.2 Follow-up telephone interviews and mail questionnaires

On completion of each telephone interview, respondents were asked whether they would be willing to fill in a mail survey and participate in a follow-up telephone interview approximately 6 months later. The response rates for this and the mail questionnaire are presented in Table 3 below. In the second column the number of completed telephone interviews is shown. This is followed by the number of respondents who accepted the mail questionnaire. The fourth column shows the number of returned mail questionnaires. This column can be interpreted in the following way: In round one, 125 questionnaires were returned. In round 2, 119 questionnaires were returned and, of the 119 respondents who returned the questionnaire, 91 of them also return the questionnaire in first round. In the third round, 94 mail questionnaires were returned; 74 of these respondents also filled in the survey from round 2 and 68 filled in the survey from round 1 and, in total, 59 individuals filled in all the surveys from each round.

Table 4: Response rates - follow-up telephone interviews and mail questionnaires

<table>
<thead>
<tr>
<th>Telephone Interviews</th>
<th>Accept Mail Questionnaire</th>
<th>Mail Questionnaires Returned</th>
<th>Interview again in 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>R1</td>
<td>R2</td>
</tr>
<tr>
<td>Round 1</td>
<td>284</td>
<td>238</td>
<td>125</td>
</tr>
<tr>
<td>Round 2</td>
<td>244</td>
<td>214</td>
<td>81</td>
</tr>
<tr>
<td>Round 3</td>
<td>204</td>
<td>163</td>
<td>68</td>
</tr>
<tr>
<td>Complete</td>
<td></td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Panel 3 rounds</td>
<td></td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Round 4</td>
<td>184</td>
<td>166</td>
<td>65</td>
</tr>
<tr>
<td>Complete</td>
<td></td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Panel 4 rounds</td>
<td></td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>
3.6.3.3 Non-response bias

I checked for non-response bias using the method suggested by Heckman (1979) in relation to respondents who participated in the telephone interview, but did not return the mail questionnaire. I found that age increased the likelihood of participants returning the mail questionnaire and that number of previous start-ups decreased the likelihood of returning the questionnaire. However, when controlling for selection bias in the empirical analyses in the different studies, this did not have an influence on the results. Therefore, in the empirical analyses, I did not include a control for this.

3.7 Limitations Related to the Method

3.7.1 Non-response bias

Although I attempted to locate and account for as many board members as possible, there were a large number of board members for whom no information could be obtained. I also excluded the 451 firms that went through liquidation prior to bankruptcy. It is difficult to calculate the exact influence this has on the results. In the cases where the respondent gave a reason for not participating, this fell fairly evenly into two categories: Either the respondent did not have time or they did not want to talk about the bankruptcy. The latter reflects that the full range of the emotional implications of the failure may have not been captured. The difficulty of locating some entrepreneurs and the fact that some of the entrepreneurs moved overseas shortly after the bankruptcy may reflect that they have high debts as a result of the bankruptcy. This therefore reduces the range of financial loss that has been captured. In particular, this may influence the boundary conditions in the fourth study. That being said, the response rate in this study is on par with most published research in the field of entrepreneurship.

3.7.2 Heterogeneity

There was substantial heterogeneity in regard to the types of firms that went bankrupt in the sampling frame and in regard to the entrepreneurs included in the sample. For example, there was heterogeneity regards to the age of the firms and the size of the firms. This reflects potential variance in profitability and potential success that the firm may have experienced prior to the failure. There were, for example, large, established firms that had been in operation for a number of years and small firms that went bankrupt before ever really establishing themselves on the market. There was also heterogeneity in regards to the types of entrepreneurs included in the sample. For example, there was heterogeneity in regards to the human capital of the entrepreneurs and the role
3 Method

the firm played in relation to other forms of employment. On the one hand, a strength of the sample was that these differences could be controlled in the different studies and, thus, an over-arching picture of the implications of failure could be obtained. On the other, a more homogeneous sample of entrepreneurs—for example, only entrepreneurs who had the firm as their sole occupation— may enable a better investigation of some of the theoretical relationships tested, for example, the effects of loss of self-esteem on emotional responses to firm failure as the entrepreneur does not have other employment roles as a source of self-esteem.

3.7.3 Timing

The sample frame included all firms that went bankrupt in September, October, and November of 2008. The sample is therefore of firms that went bankrupt at the beginning of the global economic crisis that unfolded in late 2008.

While the timing of the research makes it highly relevant given that more firms are going bankrupt as a result of the crisis and, thus, information regarding the implications of firm failure has increased in importance. However, there is also a risk that the theoretical relationships identified could be influenced by the crisis. To control for this, respondents were asked to what extent the crisis had influenced the failure. This variable was largely uncorrelated with the control and research variables. There is, however, at least one instance where the timing of the study may influence the strength of the identified theoretical relationships. This is the case for the relationship between stable attributions and re-entry into self-employment. In approximately 30% of the firms that went bankrupt, the respondent indicated that the economic crisis was either the main or contributing factor to the bankruptcy. The stability dimension and extent that the financial crisis contributed to the bankruptcy were negatively correlated. The extent that financial crisis contributed to the bankruptcy was also positively related to motivation to re-enter self-employment. Thus, the influence of the stability dimension for explaining re-entry into self-employment after failure may be inflated due to the timing of the data collection.

The study is influenced by timing in another way. Over 30% of the sample had re-entered self-employment at the first point of contact, approximately 6 months after the respondent had filed for bankruptcy. Although it is not surprising that many entrepreneurs re-enter after experiencing failure (Sarasvathy & Menon, 2003), the fact that 30% of the sample re-entered so quickly after experiencing failure means that it is harder to disentangle the relationship between coping and re-entry as an adaptive outcome. One explanation for this is that re-entry into self-employment could be a method of coping with the failure. It helps replace what was lost and it can also help deal with secondary causes of stress related to financial strain (cf. Shepherd, 2003).
3.8 Concluding remarks on method approach

An important finding from the method approach taken in this dissertation is that it is possible to survey entrepreneurs who have experienced firm failure. In particular, I found that they were willing to share how the failure impacted them emotionally and financially. I also found that this method approach also captured the variance in responses to failure that have been identified in the literature. Most respondents were also interested in receiving a copy of the findings, suggesting that the research was of interest to them. This is an encouraging sign for empirical research on the topic of failure. Entrepreneurs who experience failure are willing to share their experiences and they are also interested in findings from academic research.

Although I did not test just sending a mail questionnaire to board members of firms that had gone bankrupt, the two-step approach of first calling respondents to identify if they were an active-owner manager and following this up with a mail questionnaire enabled a large sample of respondents to be reached.
REFERENCE LIST


Bjorck, J. P., Cuthbertson, W., Thurman, J. W., & Lee, Y. S. 2001. Ethnicity, coping, and distress among Korean Americans, Filipino Americans,


Reference list


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Part III

Concluding the dissertation

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8. CONTRIBUTIONS AND CONCLUSIONS

The purpose of the thesis was to investigate how entrepreneurs respond to and interpret firm failure. I focused on learning, re-entry into self-employment and emotional recovery as important adaptive outcomes. To answer this purpose I developed four sets of research questions and used three different theoretical frameworks to answer them. The answers to these research questions were presented as four studies in article format. By answering these research questions the study makes a number of contributions to the entrepreneurship literature. Also in the process of using the transactional model of stress and adaptation (Folkman et al., 1986; Lazarus & Folkman, 1984), and attribution theory (Weiner, 1985) to answer these research questions, contributions are also made back to these theories. In this section I first outline the contributions to the entrepreneurship literature. This is followed by the contributions to the transactional model of stress and adaption and attribution theory. I then include the limitations of the dissertation and give suggests for future research. I conclude the thesis with my final thoughts as reflections from the process of researching the implications of firm failure for entrepreneurs.

8.1 Entrepreneurship literature

The dissertation contributes to the entrepreneurship literature in three principal ways. First, the four studies combined present a comprehensive picture of how entrepreneurs respond to firm failure and the implications this can have on how they feel, what they learn, and their motivation to re-enter self-employment. Hence, the dissertation contributes to the emerging literature on entrepreneurial failure. By investigating the relationships between learning and re-entry, the financial costs of failure and re-entry, and how entrepreneurs cope with failure and the implications this has for re-entry into self-employment after firm failure, the dissertation also contributes to the habitual entrepreneurship. I elaborate on these respective contributions in the following sections.

8.1.1 Entrepreneurial failure

As outlined in sections 2.4, prior research has begun to investigate the implications of firm failure for entrepreneurs’ well-being and the relationship between failure and learning. To date, however, this research has been predominately been either conceptual or based on case studies. Hence, this dissertation represents an important first step in formally examining how entrepreneurs respond to the failure of their firms and the implications this has
for their well-being, and what they learn from the experience. By investigating the variance in responses to firm failure, I also show the importance of considering how failure is defined and the implications this has for researching failure in the context of entrepreneurship. I summarize the contributions to how failure is defined, learning from failure, and welfare implications from failure in turn.

8.1.1.1 Defining Failure

As outlined in section 2.1, recent research has emphasized the need to distinguish between failure of the firm and failure of the entrepreneur (Cardon et al., 2011; Sarasvathy, 2004). Although I did not explicitly measure the extent that firm failure is perceived by entrepreneurs as a personal failure, the extent they felt grief and experienced loss of self-esteem captured this (Crocker & Wolfe, 2001; Link, Struening, Nesse-Todd, Asmussen, & Phelan, 2001). This is because individuals experience loss of self-esteem when they experience personal failure in domains in which they have staked their self-worth, and this is manifested in the experience of negative emotions (Crocker & Wolfe, 2001). Thus, loss of self-esteem is an important mechanism that transfers the failure of the firm to a personal failure for the entrepreneur. The finding that some but not all entrepreneurs appraised the failure as involving loss of self-esteem and grief thus lends empirical support for the premise that failure of the firm does not always imply failure of the entrepreneur (Sarasvathy, 2004).

This finding also reflects the importance of the level of analysis in which failure is defined and the level of analysis in which the implications of failure are investigated. In this research, I defined failure at the firm level and analyzed the implications of failure at the individual level of analysis. Hence, I took a relatively homogenous experience and showed that there is substantial variance in how entrepreneurs respond to the failure of their firms. This finding can have important implications for researching failure in the entrepreneurship context. Prior research has often used the term entrepreneurial failure without clearly distinguishing whether it is the firm that has failed, the entrepreneur who has failed, or if both have failed. The variance in responses to firm failure suggests that entrepreneurs who experience firm failure are not a homogenous group (Ucbasaran et al., 2010) and future research take this into consideration in their research design.

An alternative way to determine whether an entrepreneur has failed is to view firm failure in the context of his or her entrepreneurial career (Sarasvathy & Menon, 2003). Entrepreneurs who re-enter after failure and experience subsequent entrepreneurial success, or who have experienced previous entrepreneurial success prior to experiencing failure, can be classified as successful entrepreneurs (Sarasvathy & Menon, 2003). Defining success and failure over the span of an entrepreneur’s career introduces the important role
of coping with failure for motivation to re-enter self-employment. Taking this broader time perspective suggests that what is important for determining the success of an entrepreneur is how well they cope with financial and psychological costs of failure and the implications this has for re-entry into self-employment. This formed the foundations for the second study. I found that the use of adaptive coping strategies (planful problem solving and seeking social support) mediated the relationship between the financial costs of failure and re-entry into self-employment, such that the greater the use of adaptive coping strategies, the greater the probability the entrepreneur re-entered self-employment. However, I did not find a relationship between adaptive coping strategies, the psychological costs of failure or re-entry into self-employment. This suggests that actively coping with the financial costs of failure is one mechanism that influences whether an entrepreneur re-enters self-employment after firm failure. However, these same coping strategies are less useful for helping entrepreneurs overcome the psychological costs of failure and re-enter self-employment.

8.1.1.2 Learning from Failure

As outlined in section 2.3, learning has been identified as a positive outcome from failure; however, how entrepreneurs learn from failure is poorly understood (Cannon & Edmondson, 2001; Cope, 2011). I focused specifically on understanding learning outcomes related to self-employment knowledge and the influence attributions for the failure plays in the learning process. This formed the foundations for the third study and, in doing so, answered the third set of research questions identified in section 1.4. I did this by focusing on reflection as an important component of the learning process and linking the nature of the attribution to the type of reflection that is likely to take place after failure. In turn, I suggested that the nature of what is reflected upon forms the foundations for either double-loop learning or single-loop learning. I hypothesized and found that the more the entrepreneur perceived that the cause of the failure was about them, and the greater the personal control entrepreneurs perceived that they had over the attribution, the more likely it was that they reflected on their role in contributing to the failure. I suggested that this created possibilities for double-loop learning. In contrast, I hypothesized that the more the entrepreneur perceived that the causes of the failure were related to the situation or other people, the more likely they reflected on the role of the situation or others in contributing to the failure. I suggested that this created possibilities for single-loop learning.

In turn, I related the nature of what is reflected upon to motivation to re-enter self-employment. I hypothesized that an outcome of entrepreneurs reflecting on their role in contributing to the failure is lower motivation to re-enter self-employment. The underlying mechanism being that an outcome of reflecting on their role in contributing to the process is the experience of negative
emotions and loss of self-esteem, which, in turn, can decrease motivation to re-enter self-employment. In contrast, I hypothesized that entrepreneurs who reflected on the external factors that contributed to the failure were more likely to be motivated to re-enter self-employment. External attributions can help protect self-esteem and maintain motivation as the entrepreneur does not focus on their role in contributing to the failure. These findings suggest that attributions have a direct influence on what is learned and, through learning, also have an indirect influence on the motivation to apply what has been learned.

The role that attributions play for learning can also have broader implications for the entrepreneurial learning literature. Much of the learning in the entrepreneurship process is based on experience (e.g. Minniti & Bygrave, 1999). As entrepreneurs navigate the entrepreneurial process, they must overcome setbacks. Thus, encouraging entrepreneurs to reflect on their actions as they navigate the entrepreneurial process can facilitate entrepreneurial learning.

8.1.1.3 Welfare implications of failure

Because firm failure has been conceptualised as a negative life event for the self-employed (Shepherd, 2003), and grief has been suggested as an umbrella concept capturing the negative implications that firm failure can have on an entrepreneur's well-being (Ucbasaran et al., forthcoming), as a starting point I investigated the extent that entrepreneurs feel grief after firm failure. This formed the foundation for the first study and answered the first research question identified in section 1.4. Framed within the transactional model of stress and adaption, I identified three appraisals that help explain the extent that entrepreneurs feel grief after firm failure. I found that the appraisal of loss of self-esteem had the strongest influence on grief after firm failure. Loss of self-esteem indicates that an individual feels that they have personally failed in a domain in which they have staked their self-worth (Crocker & Wolfe, 2001). This finding also relates to the recent research that suggests that firm failure represents a loss of an important role, which can lead to a loss of self-esteem (Shepherd & Haynie, 2011). Role loss that also involves loss of self-esteem is likely to result in feelings of grief (Averill, 1968). I also found that the financial strain also influenced feelings of grief, suggesting that the financial and psychological costs of failure are likely to be intertwined. Financial strain is often associated with a range of secondary stressors that can negatively influence an individual's well-being.

The second study built on the findings in the first study and investigated how entrepreneurs coped with the financial and psychological costs of failure and the implications this had for re-entry into self-employment and emotional recovery. In doing so, this study answered the second set of research questions identified in section 1.4. In this study, I identified three coping strategies that
are used by entrepreneurs to manage financial and psychological costs of firm failure. An important outcome from this study is that entrepreneurs find it difficult to recover from the psychological costs of firm failure. Specifically, I found that entrepreneurs who experienced grief after firm failure were less likely to recover emotionally from the failure experience and they were more likely to rely on escape-avoidance coping, which had a maladaptive effect on their emotional recovery.

### 8.1.2 Habitual entrepreneurship literature

The dissertation makes two principal contributions to the habitual entrepreneurship literature. The first relates to the role of coping for motivation to re-enter self-employment after experiencing failure and the second relates specification of the prior experience variable.

#### 8.1.2.1 Coping and re-entry into self-employment

The habitual entrepreneurship literature has emphasized that entrepreneurs need to overcome the emotional and financial implications of firm failure to gain the motivation to re-enter self-employment (Shepherd, Wiklund, & Haynie, 2009; Ucbasaran, Westhead, & Wright, 2008) and that emotional and financial recovery are likely to be interrelated (Cope, 2011; Shepherd et al., 2009). I contribute to this literature in the second study by investigating the role of coping for re-entry into self-employment. As already outlined in sections 5.1.1.1 and 5.1.1.3, I found that entrepreneurs who use adaptive coping strategies to deal with the financial implications of firm failure are more likely to re-enter self-employment. I also found that the psychological and financial costs of failure did not have a direct influence on re-entry into self-employment. This suggests that entrepreneurs may not need to overcome the psychological costs of failure prior to re-entering self-employment. One explanation for this finding is that re-entry can be viewed as a restoration coping strategy where the new firm replaces the role and function of the previous firm (Shepherd, 2003). An alternative explanation for these findings is that entrepreneurs who are motivated to re-enter self-employment are also more motivated to cope with the implications of failure. Motivation to re-enter self-employment could therefore be viewed as a driver of coping strategies.

#### 8.1.2.2 Prior experience and subsequent firm performance

The habitual entrepreneurship literature has often assumed that prior entrepreneurial experience (success or failure) will be associated with superior performance. Empirical findings have been mixed (Ucbasaran, Alsos, Westhead, & Wright, 2008). This suggests that the prior experience variable is underspecified. I address this in two ways. First, I tease out the relationship between learning and motivation to re-enter self-employment and second, I focus on how the financial implications of failure influence the probability of...
re-entry into self-employment. In the third study, I relate learning with motivation to implement what has been learnt. I found that there are two types of entrepreneurs who are motivated to re-enter self-employment after experiencing failure: those who potentially learn the most and those who potentially learn the least from failure. Specifically, I related single-loop learning and double-loop learning to motivation to implement the knowledge outcomes from these two learning processes. As summarized in section 5.1.1.2, I suggested that entrepreneurs who double-loop learn are less likely to be motivated to re-enter self-employment because an outcome of reflecting on their role in contributing to the failure is the experience of negative emotions and loss of self-esteem. In contrast, I suggested that entrepreneurs who single-loop learn are more likely to be motivated to re-enter self-employment because focusing on the role of others or the situation in contributing to the failure can help maintain self-esteem and entrepreneurial motivation. However, a consequence of reflecting on the role of others or the situation is that they are less likely to learn what they could do differently in future attempts. While I found support for these relationships, I also found that entrepreneurs who attributed the failure to causes that they perceived as under their control were more likely to reflect on their role in contributing to the failure and were also motivated to re-enter self-employment. This could reflect that these entrepreneurs have superior information processing skills and are able to more easily draw and apply what they learn from experience (Mitchell, Mitchell, & Mitchell, 2009). This suggests that they may not need to reflect on the failure to the same extent to gain important learning outcomes and may therefore be less susceptible to the emotional consequences of this type of learning.

These findings can therefore help explain why prior entrepreneurial experience and, in particular, prior failure experience does not always result in improved performance in subsequent firms. The prior experience variable confounds entrepreneurs with who have learned from past experiences with entrepreneurs who have not learned from past experiences.

In the fourth study, I investigated how the financial implications of firm failure influenced the probability of re-entry into self-employment. This answered the fourth research question identified in section 1.4. The findings from this study also suggest that there are two types of entrepreneurs who re-enter self-employment after firm failure: those who receive a positive return on their human capital in self-employment, and those who receive a negative return on their human capital in self-employment. I found that the less the entrepreneur experienced financial strain as a result of the failure, the greater the probability they re-entered self-employment. I suggested that the lack of financial strain indicates a positive return on their human capital in self-employment and re-entry is a way to capitalize on their human capital. In contrast, I found the greater the amount of personal debt the entrepreneur had as a result of the failure, the greater the probability they re-entered self-employment. I suggested
that the extent of personal debt indicated a negative return on human capital and explained this finding by drawing on prospect theory. Prospect theory explains how individuals make decisions under the condition of risk (Tversky & Kahneman, 1981). In loss situations, individuals are generally risk seeking and accept riskier investments than they would be otherwise (Kahneman & Tversky, 1979). This is particularly the case if the individual must choose between a certain loss and a long shot investment (Arkes & Blumer, 1985) suggesting that individuals who are in debt as a result of the failure may be motivated to re-enter self-employment—even if they feel their chances of success are slim—to avoid the certain loss as a result of the failure.

These findings suggest that, after experiencing failure, entrepreneurs who receive both high and low returns on their human capital are motivated to re-enter self-employment. These findings can also help explain why prior entrepreneurial experience and, in particular, prior failure experience does not result in improved performance in subsequent firms. The prior experience variable confounds entrepreneurs with high and low returns to their human capital in self-employment.

Taken together, the findings from studies three and four help explain the mixed results regarding the relationship between prior experience and firm performance and suggest ways of specifying the prior experience variable to better capture the relationship between prior experience and firm performance.

8.2 Transactional model of stress and adaptation

Much of the research that uses the transactional model of stress and adaption as a theoretical framework has either focused on understanding the antecedents of specific emotions or has focused on the role of coping for adaptive outcomes. Much less focus has been on the relationship between experiences that are appraised as stressful and the individual’s well-being or emotional response to the stressful experience.

One reason for the lack of research on the intensity of emotional responses is that intensity is a salient feature of emotions that is often taken for granted (Reisenzein, 1994; Sonnemans & Frijda, 1994). As a result, it has received little systematic investigation (Frijda, Ortony, Sonnemans, & Clore, 1992). Thus, an important aspect of the process in stress and adaptation research is often overlooked. I focused on one aspect of well-being—feelings of grief (Larsen, Diener, & Emmons, 1985; Ortony, Clore, & Collins, 1988)—and showed how harm-loss appraisals can be used to capture the distress component of grief.
By focusing on grief, I also showed that in major stressful life events, it can be difficult to disentangle stress emotions. This contrasts with more regular daily stressful experiences where it is much easier to identify specific emotional responses to the experience (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986). I also incorporated prior exposure to similar stressful experiences and suggested that this should be taken into consideration in the appraisal emotion framework. Prior exposure to stressful experiences can help develop resiliency. Resiliency is the ability to bounce back quickly after stressful experiences (Richardson, 2002). This suggests that, for a given level of appraisal, resilient individuals are less likely to experience negative emotions because they can offset their experiences with negative emotions to a greater extent with positive emotions (Fredrickson, Tugade, Waugh, & Larkin, 2003). Hence, I suggest that resiliency could be an important moderating variable between appraisals of stress and emotional responses.

8.3 Attribution theory

Weiner’s attribution theory of motivation and emotion has been used to understand how individuals adapt to failure experiences. Much of this research has implicitly assumed that learning plays an important role in the relationship between attributions and behavioural outcomes. Rarely is learning explicitly incorporated into this framework.

Attributions are often related to motivation through their influence on emotions. However, as attributions are fact-based rather than significance-based (Smith, Haynes, Lazarus, & Pope, 1993), I related attributions to learning and the influence attributions can have on motivation through learning. In doing so, I suggested that the negative emotions that can arise from internal attributions are from the process of learning about one’s own role in contributing to the failure. Thus it is not the internal attribution, per say, that triggers the negative emotional response, but the reflection on one’s own role in contributing to the failure that internalizes the failure and triggers a negative emotional response.

8.4 Policy Implications

The implications of firm failure for an entrepreneur’s motivation to re-enter self-employment has recently received increased attention in public policy. An important finding from the first study is that the firm failure for the self-employed has a similar impact on an entrepreneur’s well-being as job loss for the employed. In many countries, the recently unemployed receive a range of support from the government in terms of financial assistance and re-training to
help buffer the impact of job loss and facilitate the individual re-entering employment. Similar programs could be developed for entrepreneurs who have recently experienced firm failure. This could help buffer the impact of the failure and increase the likelihood that they re-enter self-employment.

The European Commission has, for over the last 10 years, been encouraging member states to change their laws and attitudes towards giving failed entrepreneurs a second chance. A summary of their suggestions can be found in the report, “Best Project on Restructuring, Bankruptcy and a Fresh Start” (European Commission, 2003). Two of their policy suggestions relate to the specific findings in this dissertation. First, the Commission recommends having more training courses for entrepreneurs throughout the life of their business. Because the entrepreneurship process is characterized by setbacks (Sommer et al., 2009) and even critical events (Cope, 2003), incorporating the findings from this dissertation that relate to learning can encourage entrepreneurs to more systematically learn from their entrepreneurial experiences. This could therefore help entrepreneurs to identify weaknesses in their skills and management before they become detrimental to the performance of the firm. The Commission also recommends that member countries introduce campaigns to promote fresh starts for failed entrepreneurs. As a complement to these campaigns, support to help entrepreneurs overcome the emotional costs and financial costs of failure could help encourage them to start again. Providing increased support for failed entrepreneurs could also help reduce the general fear of failure that hinders many potential entrepreneurs from starting a firm.

I also found that financial strain influences both an entrepreneur’s well-being after failure and also their likelihood of re-entry into self-employment. This suggests that public policy should focus on early detection of financial problems in firms to either encourage exit or reconstruction of unprofitable firms before they cause financial hardship for the entrepreneur. Currently in Sweden, the bankruptcy reconstruction process is rarely used by firms because financial problems are often detected too late (European Commission, 2002).

### 8.5 Pedagogical implications

There are a number of pedagogical implications that arise from the dissertation. Recent text books on entrepreneurship have begun to include a section on how to exit a business and this often includes references to failure as one exit route. The information regarding exit and failure, however, is often factual providing information on numbers of firms which exit each year and a description of the bankruptcy process (e.g. Allen, 2012; Katz & Green, 2011). Rarely are the implications of firm failure for entrepreneurs discussed, exceptions include (Blundel & Lockett, 2011; Hisrich, Peters & Shepherd 2008). This information, however, is often included as short side issues. Most of the focus in text books
is on the start-up process. This is also reflected in what is taught in many entrepreneurship courses. However, as the entrepreneurship process is characterized by overcoming setbacks and outright failures, it is surprising that more emphasis is not placed on these aspects of the start-up process and management of a business. As setbacks and failure are common to the entrepreneurship process, greater emphasis on how to manage them can help students be more prepared for the reality of engaging in an entrepreneurial career. This is particularly relevant given that much of the learning in the entrepreneurship process is experiential in nature.

Thus, incorporating why setbacks and failure are common—for example explanations related to excess entry, liability of newness, and lack of experience—and incorporating how to manage failure—for example, the influence of attributions for learning and motivation and the role that coping strategies can play for recovery—can provide students with important tools for helping them to learn about their entrepreneurial abilities as they navigate the entrepreneurship process.

The findings also relate to the principles of effectuation. Effectuation has increasingly been incorporated into university level curriculums. One of the key principles of effectuation is affordable loss: that is, to judge entrepreneurial opportunities on their downside risk rather than the potential upside gain (Sarasvathy, 2001). Findings from this dissertation give support for the importance of the affordable loss principle. Financial strain had negative implications on entrepreneurs’ well-being and decreased their likelihood of re-entry into self-employment.

8.6 Generalizability of Findings

Two issues are important here: the generalizability of findings to other contexts than Sweden and the generalizability of findings to other, less restrictive, definitions of failure. In regards to the generalizability of findings to other contexts than Sweden, Cope’s (2011) paper on learning from firm failure provides initial evidence that, even in high tolerance to failure contexts, entrepreneurs can still suffer emotional and financial costs of failure. He investigated how eight entrepreneurs reacted to and learned from failure. Four of the entrepreneurs were from different regions in the United Kingdom, where failure is highly stigmatized, and four were from Silicon Valley, where tolerance of failure is high (Landier, 2005). One main difference between the entrepreneurs from the different contexts was the speed at which they recovered from failure. The entrepreneurs in Silicon Valley still felt the initial emotional and financial impact of failure, but were able to move on to new
ventures or employment more easily than their counterparts in the United Kingdom (Cope, 2011). The entrepreneurs from Silicon Valley had experienced prior entrepreneurial success, which likely contributed to their ability to recover. Although based on this sample it is not possible to disentangle the effect that prior entrepreneurial successes had on the entrepreneur’s ability to recover, the findings suggest that the initial impact of failure can still be felt acutely in high tolerance to failure contexts. The level of stigma associated with failure can also influence how likely it is that the entrepreneur re-enters self-employment and the mode of re-entry (Simmons & Wiklund, 2011). In contexts that are characterized by high stigma, entrepreneurs are less likely to re-enter after experiencing failure (Simmons & Wiklund, 2011). In other words, the level of stigma associated with failure can influence the extent that an entrepreneur responds negatively to failure and the speed at which they recover. Thus, context is likely to influence the strength of the identified relationships and the relative importance of the different dependent variables (cf. Davidsson, 2008).

In other words, context introduces additional heterogeneity to the model. For example, the role of coping for recovery may be less relevant in high tolerance to failure contexts while appraisals of the failure can be more relevant for explaining emotions in less tolerant contexts. Thus, the specific context can influence the strength and the relative importance of these different identified relationships. However, the overarching model is still applicable across contexts and, thus, the findings can be generalized across contexts.

In regards to the generalizability to other, less restrictive, definitions of failure, the findings from this study are also highly relevant. Although the public and formal nature of bankruptcy may heighten some of the implications of failure, for example, it might heighten the previously discussed stigma associated with failure, how an entrepreneur interprets failure is important for how they respond to the failure. Thus the findings that relate to the role of attributions for learning from firm failure, the relationship between appraisals and grief and the role of coping are likely to generalize to the situation where an entrepreneur exits an underperforming firm. Further, these findings support the use of individual level theories from social psychology for understanding how entrepreneurs respond to and interpret firm failure.

8.7 Limitations

Limitations associated with the research design were outlined in section 3.8. The other main source of limitations relates to the research questions asked and the theories I chose to investigate. By selecting to address some research questions and not others, I excluded a range of important factors that are likely to influence how entrepreneurs respond to firm failure. The most important
limitations are outlined in the current section; how they relate to potential future research is suggested in the section 8.8.

To answer the research questions, I took a state-based approach and focused on the implications for how entrepreneurs interpret the failure experience. I did this without considering the role of the entrepreneur’s wider social context (cf. Cope, 2011). This limitation is partly a result of using attribution theory. This theory has been criticized for neglecting the role of the social context in the attribution process. Given that failure can detach the entrepreneur from their wider social context (Cope, 2011; Whitley, 1998), the extent that entrepreneurs feel social isolation is likely to influence their reactions and recovery from firm failure. For example, findings from the job loss literature have shown that social-network embeddedness helps individuals maintain a positive outlook when they are unemployed (McKee-Ryan et al., 2005).

I operationalized learning using reflection. While this captured an important aspect of learning, the learning process is complex and there are a range of factors that influence what is learnt from experience. A consequence of using reflection is that I can only infer learning outcomes based on the nature of the reflection that takes place.

I took the starting point that firm failure is likely to be interpreted as a stressful experience for the entrepreneur and grief as a likely emotional response. I focused on appraisals of harm and loss to do this. This limited the extent that I could study whether the entrepreneur interpreted the experience as an opportunity to learn. Focusing on challenge appraisals – appraisals which capture if the failure was perceived as an opportunity to learn – is one way I could have done this. For example, challenge appraisals could be related to a mastery learning goal orientation. Another limitation of focusing on grief as an emotional response is that I did not consider that for many entrepreneurs, the time leading up to the failure can be particularly stressful. This suggests that other emotions, such as relief, could be felt after failure. Relief is often felt when a stressful experience is over. Thus the limitation of focusing on grief is that I did not consider the full range of emotions that can be felt after firm failure.

8.8 Future Research

The advantage of using state-based measures is that they are more proximal to the variables of interest than trait-based measures and can therefore be used to understand how entrepreneurs interpret and respond to a specific failure experience. However, state-based theories they say less about how entrepreneurs generally interpret failure experiences. Trait based theories can be useful in this regard. They can be used to understand which entrepreneurs are
likely to persevere in the entrepreneurial process and which entrepreneurs are likely to exit more readily. Trait based theories can also be viewed as antecedents to state-based responses (Rauch & Frese, 2007), and thus help explain the variance in responses to firm failure.

Examples of trait measures that could be particularly relevant to study after firm failure are locus of control (Rotter, 1966) and self-efficacy (Bandura, 1997). These are the most common psychological factors that influence how individuals interpret stressful events. Further, these are the two factors that have been identified in the entrepreneurship literature as being particularly important in explaining how entrepreneurs successfully navigate the complexities of the entrepreneurial process. In addition, learning goal orientation (Dweck & Leggett, 1988) could be particularly important in the context of firm failure due to its role in influencing how failure is interpreted in achievement settings (cf. Cardon & McGrath, 1999).

To avoid problems associated with hindsight bias, I focused on what the entrepreneur was currently doing and thinking, but this was at the expense of understanding their initial motivations for entering self-employment. Prior research has suggested that initial motivations for entering self-employment can influence how entrepreneurs respond to failure. (Whitley, 1998). Whitley (1998) found that entrepreneurs who were pushed into self-employment because they had limited employment options experienced more acutely financial and emotional loss after failure. This reflects the outside options available to the entrepreneur (Gimeno, Folta, Cooper, & Woo, 1997) and suggests that this is likely to influence reactions to firm failure. This also suggests taking more of a process view where the time leading up to the failure is also taken into consideration.

I also did not consider the implications that the failure had on the entrepreneur’s family. Prior research has found that divorce can coincide with firm failure (Singh et al., 2007). Other research has found that children who grow up in entrepreneurial families are more likely to become entrepreneurs themselves. This research, however, has not considered the performance of the parents’ firms for the likelihood of the next generation to enter self-employment (Wright & Kellermanns, 2011). Understanding the implications of failure on children’s likelihood of re-entry thus offers a way to gain a more nuanced understanding of the role that growing up in a family business has on the likelihood of becoming an entrepreneur.

Entrepreneurship research has begun to investigate the role heuristics for learning (Holcomb, Ireland, Holmes Jr, & Hitt, 2009). In particular, heuristics can influence how entrepreneurs process feedback information (Frese, 2006). Thus, incorporating the use of heuristics and how the level of expertise of the entrepreneur influences the use of heuristics for learning after firm failure can
provide a more nuanced understanding of the learning process after firm failure.

8.9 Final Thoughts

I conclude the dissertation with some final reflections from my experience researching the implications of firm failure for entrepreneurs and how this informs my future research.

When explaining to people the topic of my dissertation I often received one of three responses. Surprise that entrepreneurs were willing to participate in the study and a genuine interest in the findings. A story about someone they know who deliberately ran a company into bankruptcy. Or indifference regarding the implications of failure, as it was the entrepreneur who was at fault. These three responses all relate in some way to stigma that is often (unfairly) associated with firm failure. That is, failure is often perceived as shameful, associated with dishonest conduct or is the result of personal shortcoming of the entrepreneur. This is despite studies by the European Commission showing that only 4% of bankruptcies are associated with improper conduct (Sannesson, 2011).

In this dissertation I drew inspiration from the job loss literature. I found that the implications of firm failure for the self-employed are similar to the implications of job loss for the employed. When an individual loses a job, however, this is often associated with empathy and concern for the newly unemployed. Rarely is the first reaction to hearing that someone has lost their job an assumption that they lost it because they did something wrong.

This seemingly stark contrast in how people perceive firm failure for the self-employed and job loss for the employed forms the foundation for the next research project I would like to conduct – understanding the mechanisms which influence why entrepreneurs who experience firm failure are stigmatized and in what ways they are stigmatized. As outlined at the very start of this dissertation, firm failure is inherent to the entrepreneurship process. It is part of the dynamism in an economy which contributes to positive economic development and renewal. Innovations would not come to market if people did not take risks. In particular, new and small firms create jobs. However, how failure impacts an entrepreneur can influence the number of individuals who choose to engage in entrepreneurship. This is through a signaling effect regarding the attractiveness of self-employment as a career choice, perceptions of stigma towards failed entrepreneurs and the motivations of failed entrepreneurs to re-enter self-employment. Hence, stigma associated with firm failure at the individual level can have macro level implications.
REFERENCE LIST


Reference list


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<table>
<thead>
<tr>
<th>Num</th>
<th>Question</th>
<th>Answer alternative</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A01i</td>
<td>Hi, My name is &lt;Interviewer&gt; and I am ringing on behalf of Jönköping International Business School. (Can I please speak to &lt;Name&gt;?). We are conducting a research project on firm bankruptcies and would like to ask you some questions about &lt;Company&gt;. Is now a good time?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A02i</td>
<td>According to our information &lt;Company&gt; recently went bankrupt. Were you connected to the company at the time of the bankruptcy?</td>
<td>1 Yes&lt;&gt;0</td>
<td>No</td>
</tr>
<tr>
<td>A03i</td>
<td>Were you connected to the company shortly before the bankruptcy</td>
<td>1 Yes&lt;&gt;0</td>
<td>Only if 02i=No</td>
</tr>
<tr>
<td>A04i</td>
<td>Were you active in running &lt;Company&gt; at the time of the bankruptcy or in the lead up to it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A05i</td>
<td>Were you an owner in &lt;Company&gt; at the time of the bankruptcy? (if yes) What was your ownership share?</td>
<td>0 No&lt;&gt;1</td>
<td>If yes to 04i (a), A05i then start the interview, if no go to A06i</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, sole owner&lt;&gt;2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, majority owner&lt;&gt;3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, minority owner</td>
<td></td>
</tr>
<tr>
<td>A06i</td>
<td>Were you an owner in &lt;Company&gt; during the year prior to the bankruptcy? (if yes) What was your ownership share?</td>
<td>0 No&lt;&gt;1</td>
<td>If yes to 04i (a), A05i or A06i then start the interview, if no go to 03x</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, sole owner&lt;&gt;2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, majority owner&lt;&gt;3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, minority owner</td>
<td></td>
</tr>
<tr>
<td>03x</td>
<td>Could you please give us the name and telephone number to the person who was responsible for the company at the time of the bankruptcy?</td>
<td></td>
<td>Only if A06i=No, stop the interview after this question and call a new person.</td>
</tr>
<tr>
<td>A07</td>
<td>We are conducting a research project on the effects of a firm bankruptcy and we would really appreciate it if you could participate and share your experience. The study is comprises an eight minute telephone interview, followed by a mail questionnaire which takes approximately 15 minutes to fill in.</td>
<td></td>
<td></td>
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</table>
### Telephone Interview

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B01i</strong> Was the company foremost in manufacturing, service or retail?</td>
<td>1 manufacturing &lt;&gt;2 service &lt;&gt;3 retail&lt; 9 other, specify</td>
</tr>
<tr>
<td><strong>B02n</strong> How many full time equivalent employees had &lt;Company&gt; during the year leading up to the bankruptcy?</td>
<td></td>
</tr>
<tr>
<td><strong>B03i</strong> Was the company in your opinion, a family business?</td>
<td>1 Yes&lt;&gt;0 No</td>
</tr>
<tr>
<td><strong>B04i</strong> Were the other owners family members?</td>
<td>1 Yes, my family owned the majority of the business &lt;&gt;2 Yes, my family owned a minority of the business &lt;&gt;0 N0 Only if B03i=1</td>
</tr>
<tr>
<td><strong>B05i</strong> Were the other owners also active in the running of the business?</td>
<td>0 No &lt;&gt;1 Yes &lt;&gt;2 Yes, but in a limited capacity Only if A05i&gt;1 or A06i &gt;1</td>
</tr>
<tr>
<td><strong>B06i</strong> To what extent has the recent financial crisis contributed to the firm's bankruptcy?</td>
<td>1 not at all &lt;&gt;2 2&lt;&gt;3 3&lt;&gt;4 4&lt;&gt;5 I to a very high degree&lt;&gt;0 The bankruptcy filing took place before the current crisis Only if B06i&gt;1</td>
</tr>
<tr>
<td><strong>B07i</strong> To what extent could you influence the company's response to the crisis (For example find new customers, adjust to the new situation)?</td>
<td>1 Not at all &lt;&gt;2 2&lt;&gt;3 3&lt;&gt;4 4&lt;&gt;5 To very high degree Only if B06i&gt;1</td>
</tr>
<tr>
<td><strong>B08i</strong> Did you file yourself, or did someone else in company file for the bankruptcy, or was it someone outside the company?</td>
<td>1 I did&lt;&gt;2 Someone else in the company&lt;&gt;3 Someone outside the company</td>
</tr>
<tr>
<td><strong>B10z</strong> We will now go over to questions about your role in the company.</td>
<td></td>
</tr>
<tr>
<td><strong>B11n</strong> Approximately how many hours per week did you work in the company in the year leading up to the bankruptcy?</td>
<td></td>
</tr>
<tr>
<td><strong>B12i</strong> Was the company your main income source?</td>
<td>1 Yes&lt;&gt;0 No</td>
</tr>
</tbody>
</table>
### Appendix

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B13i</strong> Did you have paid employment or another company at the time of the bankruptcy?</td>
<td>1 Yes, paid employment 2 Yes, another company 3 Yes, both paid employment and another company 0 No, either paid employment or another company</td>
</tr>
<tr>
<td><strong>B14i</strong> How did you become the owner of the company?</td>
<td>1 Started the company 2 Inherited the company 3 Purchased the company without having previously worked in it 4 Purchased the company after having previously worked in the company 5 In another way, specify:</td>
</tr>
<tr>
<td><strong>B14n</strong> Another way to become the owner</td>
<td>Only if B14i=5</td>
</tr>
<tr>
<td><strong>B15i</strong> For how many years were you an owner of &lt;Company&gt;?</td>
<td></td>
</tr>
<tr>
<td><strong>B16i</strong> Did you realize that the company was going to go bankrupt before it happened?</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>B16n</strong> Approximately how many months before did you realize?</td>
<td>Only if B16i=1</td>
</tr>
<tr>
<td><strong>B20z</strong> Now I will ask questions about your previous work experiences</td>
<td></td>
</tr>
<tr>
<td><strong>B21i</strong> Before you become the owner of &lt;Company&gt;, did you have experience from the same industry?</td>
<td>0 No, none 1 Yes, some 3 Yes, extensive</td>
</tr>
<tr>
<td><strong>B22i</strong> Have you been involved in the start-up of other companies?</td>
<td>1 Yes 0 No</td>
</tr>
<tr>
<td><strong>B23i</strong> What was the outcome for these companies? (Multiple responses are possible if they have started more than one company.)</td>
<td>1 Still own and run the company 2 Still own the company, other people run the company 3 The company is inactive 4 Have sold the company 5 Have closed down the company with profit 6 Have closed down the company with a loss 7 The company went bankrupt 8 Was not an owner of the company</td>
</tr>
<tr>
<td><strong>B24i</strong> What is your current occupation?</td>
<td>1 Employed 2 Self-employed 3 Unemployed 4</td>
</tr>
<tr>
<td>B24x</td>
<td>Other form of employment, specify</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>B30z</td>
<td>I am now going to ask questions about you future plans</td>
</tr>
<tr>
<td>B31i</td>
<td>Have you started a new firm since the bankruptcy?</td>
</tr>
<tr>
<td>B32i</td>
<td>If you had the opportunity to be an entrepreneur again within the next ten years, do you think you would act on the opportunity? (wait for the answer) Are you 100% certain, very sure, or fairly sure that you (do not) want to be an entrepreneur again within ten years?</td>
</tr>
<tr>
<td>B33i</td>
<td>If you instead had the opportunity to be an entrepreneur again within the next one year, do you think you would act on the opportunity? (wait for the answer) Are you 100% certain, very sure, or fairly sure that you (do not) want to be an entrepreneur again within the next years</td>
</tr>
<tr>
<td>B34i</td>
<td>If you had to choose between running your own company and being in paid employment. Which would you prefer. I would like you to give you answer on a scale of 1 to 7, where 1 means that you would prefer to be in paid employment and 7 means you would prefer self-employment.</td>
</tr>
<tr>
<td>B35i</td>
<td>How likely is it that you chose a career as an employee? I would like you to give your answer on a scale from 1 – highly unlikely to 7, highly likely</td>
</tr>
<tr>
<td>B40z</td>
<td>We now go to some questions about your background</td>
</tr>
<tr>
<td>B41y</td>
<td>Which year were you born in? (YYYY)</td>
</tr>
</tbody>
</table>
**Appendix**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>B42i Were you born in Sweden?</td>
<td>1 Yes&lt;&gt;0 No</td>
</tr>
<tr>
<td>B42x In which country were you born?</td>
<td>Only if B42i=No</td>
</tr>
<tr>
<td>B43i What is your current marital status?</td>
<td>1 Single&lt;&gt;2 Married/Defacto&lt;&gt;3 Divorced</td>
</tr>
<tr>
<td>B44i Do you have children under 18 who live with you at least 50 percent of the time?</td>
<td>1 Yes&lt;&gt;0 No</td>
</tr>
<tr>
<td>B44n How many children</td>
<td>Only if B44i=1</td>
</tr>
<tr>
<td>B45i What is your highest education level?</td>
<td>1 Primary school&lt;&gt;2 2-2 year high school program&lt;&gt;3 3- or 4-year high school program&lt;&gt;4 Courses at university level (less than three years)&lt;5 Courses at university level (more than three years)&lt;6 Other, specify</td>
</tr>
<tr>
<td>A45x Other education</td>
<td>Only if B45i=6</td>
</tr>
<tr>
<td>B46i (Sex – preferably not ask.)</td>
<td>1 Man&lt;&gt;2 Woman</td>
</tr>
<tr>
<td>B50z I will now end the interview with some questions regarding financial information</td>
<td></td>
</tr>
<tr>
<td>B51n How much did you invest in the company you started/inherited/purchased it? (SEK. Preferably enter an amount, use -1 only if really necessary)</td>
<td>-1 Does not want to answer or cannot give the exact amount &lt;&gt;0 Did not invest any money at that time</td>
</tr>
<tr>
<td>B51ni Can you specify the amount of your original investment in any of the following intervals? (Read the appropriate answer.)</td>
<td>1 50 000 crowns or less&lt;&gt;2 More than 50 000 but not higher than 100 000 crowns&lt;&gt;3 more than 100 000 but not higher 500 000 crowns&lt;&gt;4 More than 500 000 kronor&lt;&gt;5 I Does not want to answer or cannot give the exact amount</td>
</tr>
<tr>
<td>B52n How much did you invest in the company since you started/inherited/purchased it? (SEK. Preferably enter an amount, use -1 only if really necessary)</td>
<td>-1 Does not want to answer or cannot give the exact amount &lt;&gt;0 Has not invested since the start/</td>
</tr>
<tr>
<td>Question</td>
<td>Response Options</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>B52n</td>
<td>Can you specify the amount of your additional investments in any of the following intervals? (Read the appropriate answer.)</td>
</tr>
<tr>
<td></td>
<td>1 50,000 crowns or less&lt;br&gt;2 More than 50,000 but not higher than 100,000 crowns&lt;br&gt;3 More than 100,000 but not higher than 500,000 crowns&lt;br&gt;4 More than 500,000 kronor&lt;br&gt;1 Does not want to answer or cannot give the exact amount</td>
</tr>
<tr>
<td>B53n</td>
<td>Do you have private debts caused by the bankruptcy? (If yes)&lt;br&gt;Approximately how large are these debts? (SEK. Preferably enter an amount, use -1 only if really necessary)</td>
</tr>
<tr>
<td></td>
<td>-1 Does not want to answer or cannot give the exact amount&lt;br&gt;0 No, have no debts</td>
</tr>
<tr>
<td>B53ni</td>
<td>Can you specify the size of your debts in one of the following intervals? (Read the appropriate answer.)</td>
</tr>
<tr>
<td></td>
<td>1 50,000 crowns or less&lt;br&gt;2 More than 50,000 but not higher than 100,000 crowns&lt;br&gt;3 More than 100,000 but not higher than 500,000 crowns&lt;br&gt;4 More than 500,000 kronor&lt;br&gt;1 Does not want to answer or cannot give the exact amount</td>
</tr>
<tr>
<td>B54i</td>
<td>How does your current financial situation compare to your financial situation before you started/took over the company on a scale from 1 – considerable worse to 5 considerably better,</td>
</tr>
<tr>
<td></td>
<td>1 considerably worse&lt;br&gt;2 somewhat worse&lt;br&gt;3 neither better or worse&lt;br&gt;4 somewhat better&lt;br&gt;5 considerably better&lt;br&gt;0 Do not want to answer</td>
</tr>
<tr>
<td>B61i</td>
<td>The telephone interview is now finished. Thank you very much for answering all of the questions. At the start of the interview I mentioned that we would also really appreciate if we could send you a mail questionnaire. May we send this questionnaire to you?</td>
</tr>
<tr>
<td></td>
<td>1 Yes&lt;br&gt;0 No</td>
</tr>
<tr>
<td>B61z</td>
<td>I would like to check that we have your correct address.</td>
</tr>
<tr>
<td></td>
<td>Only if B61i=1</td>
</tr>
<tr>
<td>B62i</td>
<td>We would also like to do another much shorter interview in six months. May we call you back?</td>
</tr>
<tr>
<td></td>
<td>1 Yes&lt;br&gt;0 No</td>
</tr>
<tr>
<td>B63z</td>
<td>Once again thank you for your participation. (If the respondent accepted the mail questionnaire) Your questionnaire will be sent shortly.</td>
</tr>
</tbody>
</table>
Appendix

Appendix 2 – The Mail Questionnaire

Dear (former) Entrepreneur

This questionnaire is a follow-up to the telephone interview that was done a few days ago. The questionnaire contains questions among other things about why you think the firm went bankrupt, how you feel after the experience and how you have reacted to the experience.

We are grateful for the time you take to answer this survey. It will contribute to increasing knowledge in an area where very little research has been done before. Your involvement in this study is extremely valuable for us. For our purposes it is really important that you answer all questions. If there are questions that are difficult to answer, please leave the question unanswered and continue to the next question. There is also room at the end of the questionnaire where can leave comments.

The questionnaire may look long and difficult to answer but should not take more than 20 minutes to answer. Your answers will be treated confidentially.

We thank you in advance for your help with answering the survey

Anna Jenkins
Project leader, Ph D Student

Ethel Brundin
Associate Professor

Jönköping May 2009

Frågorna börjar på nästa sida ➔
**GENERAL INSTRUCTIONS**

The questionnaire contains a number of questions about your current situation. Please indicate how each question or statement reflects your opinions, feelings or actions at the present time.

**Part 1. DIFFERENT REFLECTIONS AND DISCUSSIONS YOU MAY HAVE HAD SINCE THE BANKRUPTCY**

Since the firm bankruptcy you may have reflected and discussed the bankruptcy in different ways. In the list below contains a number of different ways you may have done this.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never (1)</th>
<th>All the time (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I reflect upon the reasons why the business went bankrupt</td>
<td>□ 1 □ 2  □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>2. I reflect upon the role of others in contributing to the bankruptcy</td>
<td>□ 1 □ 2  □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>3. I reflect upon the aspects of the bankruptcy that were under my control</td>
<td>□ 1 □ 2  □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>4. I reflect upon how my actions may have contributed to the bankruptcy</td>
<td>□ 1 □ 2  □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>5. I reflect upon the aspects of the bankruptcy that I was responsible for</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>6. I reflect upon the role of external factors in contributing to the bankruptcy</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>7. I reflect upon the strategies I used in the firm</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>8. I reflect upon the role of others actions in contributing to the bankruptcy</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>9. I reflect upon the role of external market conditions in contributing to the bankruptcy</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>10. I reflect on my ability to run a company</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>11. I discuss with friends or family why the business went bankrupt</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>12. I discuss with family or friends about what I have learnt from the experience</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>13. I discuss with business colleagues why the business went bankrupt</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
</tbody>
</table>
14. I discuss with business colleagues about what I have learnt from the experience

15. I have developed new management insights as a result of the bankruptcy

---

Part 2. DIFFERENT WAYS THE BANKRUPTCY MAY HAVE IMPACTED YOU

Below there is a list of different ways the bankruptcy may have impacted you

Please indicate how each statement applies to you RIGHT NOW, by crossing a box on each row from 'Does not apply at all to me' to 'Applies completely to me'.

<table>
<thead>
<tr>
<th>The bankruptcy means that:</th>
<th>Does not apply at all to me</th>
<th>Applies completely to me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have lost the possibility to develop my business</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>2. I have failed to reach an important goal</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>3. My finances are strained</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>4. My health has been negatively affected</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>5. I have lost an important person’s approval or respect</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>6. I have lost the independence that comes with owning a business</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>7. I have lost my good reputation</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>8. I have lost my self-respect</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>9. I have lost faith in myself as a capable business man/woman</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>10. I have lost an important person’s affection</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>11. I have lost my credibility</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
<tr>
<td>12. My family’s financial security has been jeopardized</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
</tr>
</tbody>
</table>
Part 3. MAIN REASON FOR THE BANKRUPTCY AND YOUR OPINION ABOUT IT

What do you consider was the main reason for the company's bankruptcy? If you think that there was more than one reason, please state the reason that you consider was the most important.

........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................

The following section uses opposite statements to find out how you relate to the reason you stated above for the company's bankruptcy. This is an example of how you answer an opposite statement.

The reason was something I could influence

The reason was something I could not influence

The person who answered thinks that he/she could influence the reason for the company’s bankruptcy quite a lot. If you, for example, completely agree with the statement on the right and not at all with the statement on the left, you would circle the 7.

Please state your opinion about the reason (you stated above) for the bankruptcy by placing a cross in each row that you think best reflects your opinion RIGHT NOW.

<table>
<thead>
<tr>
<th>The reason(s) was something:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. That reflects an aspect of myself</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I could control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4. Permanent</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I can influence</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Over which others have control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reflects an aspect of the situation
I could not control
Temporary
I cannot influence
Over which others have no control
### Part 4. EMOTIONS ABOUT THE BANKRUPTCY

This section is about possible emotions that you may have in connection to the bankruptcy. They are given in the form of statements.

Please indicate how each statement reflects how you are feeling right now by placing a cross in each row from 'completely disagree' to 'completely agree'.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am angry that the company went bankrupt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Stable over time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Under the power of other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Something about me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Other people could influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I had power over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Changeable over time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Influenced other aspects of my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 9. To do with me                                                          |   |   |   |   |   |   |   |
| 10. Stable over time                                                       |   |   |   |   |   |   |   |
| 11. Under the power of other people                                       |   |   |   |   |   |   |   |
| 12. Something about me                                                     |   |   |   |   |   |   |   |
| 13. Other people could influence                                          |   |   |   |   |   |   |   |
| 14. I had power over                                                       |   |   |   |   |   |   |   |
| 15. Changeable over time                                                  |   |   |   |   |   |   |   |
| 16. Influenced other aspects of my life                                    |   |   |   |   |   |   |   |

#### Appendix

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. To do with me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Stable over time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Under the power of other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Something about me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Other people could influence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I had power over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Changeable over time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Influenced other aspects of my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 1. Completely disagree                                                    |   |   |   |   |   |   |   |
| 2. Completely agree                                                        |   |   |   |   |   |   |   |

---

255
2. I am in total disbelief that I no longer run the company

3. I feel relieved

4. I can’t believe that this happened to me

5. I think I should have been able to make a bargain with external stakeholders to avoid bankruptcy

6. I feel a lot of hostility towards those involved in the bankruptcy

7. Sometimes I feel crying because of the bankruptcy

8. I can’t believe that the company went bankrupt

9. I can breathe out

10. I feel furious that this could happen to me

11. Some sort of comprise position should have been offered to me

12. I am very sad about the bankruptcy

13. I feel that a huge weight has been lifted from my shoulders

14. I feel depressed because of the bankruptcy

15. I should have been able to make a deal to avoid the bankruptcy

16. Maybe a positive opportunity will come out of the bankruptcy

17. I am willing to explore new possibilities

18. I am going to try and keep an open mind about the bankruptcy
Part 5. WHAT YOU ARE DOING AND EXPERIENCING RIGHT NOW

This section of the questionnaire is about what you are doing and experiencing as a reaction to the experience the firm’s bankruptcy.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all (1)</th>
<th>A very high degree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know what needs to be done, so I am doubling my efforts to make things work</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>2. I am getting emotional support from someone</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>3. I am speaking to someone to work out how I can move on after the bankruptcy</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>4. I am focusing on what I need to do next</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>5. I am trying to feel better by engaging in other activities such as watching T.V., reading etc</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>6. I am asking for advice from a good friend or family member that I respect</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>7. I wish that my current situation would disappear or somehow be over with</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
<tr>
<td>8. I am speaking to someone who can do something concrete to help me in my current situation</td>
<td>□ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</td>
<td></td>
</tr>
</tbody>
</table>
Part 6. WHAT YOU WOULD DEDICATE MORE OR LESS ATTENTION TO IF YOU WOULD START A NEW FIRM TODAY

Since the bankruptcy you may have thought about things that you might have done differently. In this section we ask you to state the activities that you dedicate more or less attention to if you started a new firm today.

<table>
<thead>
<tr>
<th>Please indicate to which degree you would dedicate more or less attention to the different activities listed below:</th>
<th>A lot less attention (1)</th>
<th>A lot more attention (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business Idea</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. Company’s strategy</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. Delegation of responsibility</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. Short term planning</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. Medium term planning</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. The goals I set for the company</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. My way of communicating with employees (if you have employees in the previous company)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
8. The management of employees in their daily work (if you had employees in the previous company)

9. The daily running of the company

10. Financial planning

11. Organization of work with the company

12. Communication with external financiers (for example banks)

13. The company's cash flow

14. Communication with suppliers

15. Communication with customers

16. Management of Inventory

17. Collaboration with suppliers

18. Collaboration with customers

19. Price setting of goods and services

20. Marketing

21. Accounting

22. After sales service

23. Selling of products and service
Part 7. What is the main lesson that you have learnt from running a company that went bankrupt?

OTHER COMMENTS:

Please place the questionnaire in the reply paid envelope. THANK YOU FOR YOUR PARTICIPATION
### Appendix 3 – Follow-up Telephone Interview

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Response alternatives</th>
<th>Skip pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>C01i</td>
<td>At the last interview you answered that you were &lt;B24xa&gt;? Is this still your main occupation? (If they do not agree with the answer from the previous interview, answer no and write comments) a - Answer to current occupation from previous interview</td>
<td>1 Yes &lt;&gt; 0 No</td>
<td></td>
</tr>
<tr>
<td>C02i</td>
<td>What is your main occupation?</td>
<td>1 paid employment&lt;&gt; 2 Self-employed&lt;&gt; 3 Unemployed&lt;&gt; 4 Studying&lt;&gt; 5 Retired &lt;&gt; 6 Housewife/husband&lt;&gt; 9 Other, Specify</td>
<td>Only if C01i ≠ 1</td>
</tr>
<tr>
<td>C02x</td>
<td>(Other employment)</td>
<td></td>
<td>Only if C02i=9</td>
</tr>
<tr>
<td>C03i</td>
<td>At the last interview you said you had started a new firm /become an owner-manager in a firm new you after the bankruptcy. Do you still own and run this company? (alternative, one of the companies, if they had started more than one)</td>
<td>1 Yes &lt;&gt; 0 No</td>
<td>Only if B31iAJ 9=1</td>
</tr>
<tr>
<td>C04i</td>
<td>Have you started a new company or another company since the bankruptcy?</td>
<td>1 Yes &lt;&gt; 0 No</td>
<td>Only if B31iAJ 9=0</td>
</tr>
<tr>
<td>D00</td>
<td>I am now going to ask a number of questions about the firm you have started/taken over.</td>
<td></td>
<td>Only if Entrep reneur AJ9H= 1, else skip to E32i</td>
</tr>
<tr>
<td>D01i</td>
<td>Is the new firm your main income source?</td>
<td>1 Yes &lt;&gt; 0 No</td>
<td></td>
</tr>
<tr>
<td>D02</td>
<td>How much do you expect the company’s turnover will be this year?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D03</td>
<td>How many employees, in fulltime equivalents does the company currently have, including owners who work in the company?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D10</td>
<td>I will now ask some questions where I want you to compare the company that you have</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Scale</td>
<td></td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D11i How similar are the products or services in the current company in</td>
<td>1 Very similar &lt;&gt; 2&lt;br&gt;2 &lt;&gt; 3 &lt;&gt; 4 &lt;&gt; 5&lt;br&gt;Very different</td>
<td></td>
<td></td>
</tr>
<tr>
<td>comparison to the company that went bankrupt?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D12i How similar are the target customers in the current company in</td>
<td>1 Very similar &lt;&gt; 2&lt;br&gt;2 &lt;&gt; 3 &lt;&gt; 4 &lt;&gt; 5&lt;br&gt;Very different</td>
<td></td>
<td></td>
</tr>
<tr>
<td>comparison to the company that went bankrupt?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D13i How similar are the suppliers to the current firm in comparison</td>
<td>1 Very similar &lt;&gt; 2&lt;br&gt;2 &lt;&gt; 3 &lt;&gt; 4 &lt;&gt; 5&lt;br&gt;Very different</td>
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<td></td>
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<tr>
<td>to the firm that went bankrupt?</td>
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<tr>
<td>D20 I will now ask some questions about the company's size and future.</td>
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<tr>
<td>D21n Approximately how much do you think the company's turnover will</td>
<td></td>
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<td>be next year? SEK</td>
<td></td>
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<tr>
<td>D22i Let's assume that over the next five years, your company grows so</td>
<td>1 Very positive&lt;br&gt;&lt;&gt;2 fairly positive&lt;br&gt;&lt;&gt;3 somewhat positive&lt;br&gt;&lt;&gt;4 Neither positive or negative&lt;br&gt;&lt;&gt;5 somewhat negative&lt;br&gt;&lt;&gt;6 fairly negative&lt;br&gt;&lt;&gt;7 Very negative</td>
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<tr>
<td>that it has about 25% more employees than today and that it has a level</td>
<td></td>
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<tr>
<td>of profit that is reasonable in relation to the size. Do you think that</td>
<td></td>
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<tr>
<td>such a development would be generally positive or negative? (Wait for</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>response) Somewhat, fairly or very positive/negative</td>
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<td></td>
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</tr>
<tr>
<td>D23i Let's assume instead that over the next five years, your company</td>
<td>1 Very positive&lt;br&gt;&lt;&gt;2 fairly positive&lt;br&gt;&lt;&gt;3 somewhat positive&lt;br&gt;&lt;&gt;4 Neither positive or negative&lt;br&gt;&lt;&gt;5 somewhat negative&lt;br&gt;&lt;&gt;6 fairly negative&lt;br&gt;&lt;&gt;7 Very negative</td>
<td></td>
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<tr>
<td>grows so that it doubles in number of employees and that it has a level</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>of profit that is reasonable in relation to the size. Do you think that</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>such a development would be generally positive or negative? (Wait for</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>response) Somewhat, fairly or very positive/negative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D24n If the company develops as you want, about how much revenue and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>how many employees would the company have five years?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(Turnover SEK in five years.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees in five years, full time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Response Options</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>E32i If you had the opportunity to be an entrepreneur again within the next ten years, do you think you would act on the opportunity? (wait for the answer) Are you 100% certain, very sure, or fairly sure that you (do not) want to be an entrepreneur again within ten years?</td>
<td>1 100% certain (want)&lt;-&gt;2 very sure (want)&lt;-&gt;3 fairly sure (want) &lt;-&gt;4 Neither sure or unsure &lt;-&gt;5 fairly sure (do not want) &lt;-&gt;6 very sure –(do not want) &lt;-&gt;7 100% certain (do not want)</td>
<td>Only if Entrepreneur AJ9H=0</td>
<td></td>
</tr>
<tr>
<td>E35i If you instead had the opportunity to be an entrepreneur again within the next one year, do you think you would act on the opportunity? (wait for the answer) Are you 100% certain, very sure, or fairly sure that you (do not) want to be an entrepreneur again within the next years</td>
<td>1 100% certain (want)&lt;-&gt;2 very sure (want)&lt;-&gt;3 fairly sure (want) &lt;-&gt;4 Neither sure or unsure &lt;-&gt;5 fairly sure (do not want) &lt;-&gt;6 very sure –(do not want) &lt;-&gt;7 100% certain (do not want)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E38i If you had to choose between running your own company and being in paid employment. Which would you prefer? I would like you to give your answer on a scale of 1 to 7, where 1 means that you would prefer to be in paid employment and 7 means you would prefer self-employment.</td>
<td>1 Prefer paid employment &lt;-&gt;2 2&lt;-&gt;3 3&lt;-&gt;4 4&lt;-&gt;5 5&lt;-&gt;6 6&lt;-&gt;7 Prefer to be in self-employment</td>
<td>Only if Entrepreneur AJ9H=0</td>
<td></td>
</tr>
<tr>
<td>E39i How likely is it that you chose a career as an employee? I would like you to give your answer on a scale from 1 – highly unlikely to 7, highly likely</td>
<td>1 Highly unlikely &lt;-&gt;2 2&lt;-&gt;3 3&lt;-&gt;4 4&lt;-&gt;5 5&lt;-&gt;6 6&lt;-&gt;7 Highly likely</td>
<td>Only if Entrepreneur AJ9H=0</td>
<td></td>
</tr>
<tr>
<td>F01i Has anyone in your family or close relative started and ran a company?</td>
<td>0 No&lt;-&gt;1 Parents&lt;-&gt;2 Siblings&lt;-&gt;3 Husband/wife/partner&lt;-&gt;4 Child&lt;-&gt;5 Other, specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F01x</td>
<td>(Specify other relative.)</td>
<td>Only if F01=5</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>G01i</td>
<td>The telephone interview is now finished. Thank you very much for answering all of the questions. At the start of the interview I mentioned that we would also really appreciate if we could send you a mail questionnaire. May we send this questionnaire to you?</td>
<td>0 Yes&lt;&gt;1 No</td>
<td></td>
</tr>
<tr>
<td>G01i</td>
<td>I would like to check that we have your correct address.</td>
<td>Only if G01i= 1</td>
<td></td>
</tr>
<tr>
<td>G02i</td>
<td>We would also like to do another short interview in six months. May we call you back?</td>
<td>0 Yes&lt;&gt;1 No</td>
<td></td>
</tr>
<tr>
<td>G02i</td>
<td>Once again thank you for you participation. (If the respondent accepted the mail questionnaire) Your questionnaire will be sent shortly.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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